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Northamptonshire County Council.

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ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR 1905,

INCLUDING A

Summary of the Annual Reports of the District  
Medical Officers of Health ;

BY

CHARLES E. PAGET.


County Medical Officer of Health.

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NORTHAMPTON :

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1906.



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# NORTHAMPTONSHIRE COUNTY COUNCIL.

## Annual Report of the Medical Officer of Health.

FOR THE YEAR 1905.

I HEREWITH have the honour to present the Ninth Annual Report of the Medical Officer of Health to the County Council of Northamptonshire, including a summary of the Annual Reports of the Medical Officers of Health for the several Districts within the Administrative County.

The Report is framed on the same lines as its predecessors, so that its value for purposes of reference may be maintained.

There were seven **Inquiries held by the Local Government Board** during the year 1905 relative to public health matters in the Administrative County as shewn in the following table :—

Date.	Sanitary District.	Subject.	Amount of Loan.	Result.
Feb. 15th	Kettering Rural ...	Provisional Order for Water Supply at Burton Latimer ...		(1) Adjourned
Apr. 18th	Higham Ferrers and Rushden Water Board	For Completion of Works ...	£18,000	Sanctioned
June 15th	Kettering Rural ...	Sewerage and Sewage Disposal at Broughton and Cransley ...	£1846	(2) Referred back for revision
.. 27th	Daventry Rural ...	Additional for Water Supply for Long Buckby ...	£494	
Oct. 3rd	.. ..	Water Supply at Badby ...	£1,500 £1,000	£1,049 sanctioned Referred back ; £1,060 now applied for
Nov. 17th	Wellingborough Rural	Sewerage and Sewage Disposal at Mears Ashby ...	£1,550	Sanctioned
.. 28th	Northampton Rural ...	Water Supply at Duston ...	£530	

In regard to this table certain notes are necessary with respect to two of the matters referred to therein :—

1. *Water Supply at Burton Latimer.*—In regard to the Provisional Order asked for, the Kettering Rural District Council desired to acquire springs at Burton Latimer, but found that, even if they overcame serious legal difficulties, there was no prospect of arranging terms of purchase or compensation, and that the amount to be paid would be beyond

the borrowing powers of the Parish. Shortly before the Inquiry it was learnt that the Kettering Urban District Council would be willing to sell their Weekley Waterworks, which gave an ample and well-ascertained supply. The Rural Council provisionally purchased these waterworks for £2,500, reported thereon to the Local Government Board, and the Inquiry was accordingly adjourned *sine die*. When, however, the Urban Council applied for a Provisional Order to enable the sale to be carried into effect the Local Government Board decided that the matter was so special that an Act of Parliament was desirable. A Bill accordingly has been presented to enable the Urban Council to sell, and the Rural Council to purchase, and borrow the necessary funds.

2. *Sewerage and Sewage Disposal at Broughton and Cransley.*—As the result of the Inquiry this scheme had to be revised with regard to details. The revision has been made, and the amended plans, with altered estimates—Broughton £2,375. 9. 4, Cransley £74. 10. 8—have been forwarded to the Local Government Board for their sanction. This sanction had not been received by the end of the year 1905.

The work of preventing **River and Stream pollution** in the County was proceeded with steadily during the year, and I am glad to be able to report the commencement of some works where they have been much needed for a considerable time. The Public Health Committee felt compelled, however, to stimulate action in the **DAVENTRY, HARDINGSTONE, THRAPSTON, and WELLINGBOROUGH RURAL DISTRICTS**, in regard to Weedon, Great Houghton, Denford, and Mears Ashby respectively, by obtaining leave from the County Council to give notice of their intention to take proceedings under the Rivers Pollution Prevention Act, 1876. The work at Great Houghton has now been carried out, the scheme for Mears Ashby was submitted to the Local Government Board before the end of the year, and the plans for Denford and Weedon are in hand. During

the year I made an inspection of the thirty-three parishes in the **BRIXWORTH RURAL DISTRICT**, in respect of River Pollution. For a good many years past no inconsiderable amount of work has been done in that district to prevent pollution of streams by sewage, and an important number of filtration areas, or small sewage farms, have been laid out for that purpose. The working of some of these was shown, unfortunately, by my inspection to be unsatisfactory, and I specially instanced serious cases of pollution by the effluents from the filtration areas at Spratton, Walgrave, Chapel Brampton, and Harleston. The condition of the filtration area at Holdenby was also eminently unsatisfactory. In addition, it was noticed that schemes, not necessarily of great magnitude, were required for sewage disposal in the parishes of Hannington, Hollowell, Maidwell, Haselbech, and Naseby. Work was, however, in hand or projected at the date of my inspections, to protect the parishes of Overstone, Scaldwell, and Thornby from being contributors to river pollution, and the sewerage of and sewage disposal scheme for Church Brampton had just been completed. Something has been done at Harpole in the **NORTHAMPTON RURAL DISTRICT** to lessen the nuisance arising from the discharge of sewage from that parish into ditches running alongside Harpole Lane, but work is still required to prevent pollution at Kislingbury and Nether Heyford. The foul state of the brook at Barnwell in the **OUNDLE RURAL DISTRICT**, referred to in the Annual Report of the Medical Officer of Health for the year 1904, was the subject of some attention. The brook was eventually cleaned out, but some scheme for dealing with the sewage of the parish has yet to be put in hand. The attention of the **IRTHLINGBOROUGH URBAN DISTRICT COUNCIL** was called to the fact that, owing to considerable delay in effecting drain connections with the new system of sewers, pollution of the brook at that place was continued to a very serious extent, and I am glad to be able to report that much progress has since been made to remove this cause for complaint.

I regret, however, that the condition of the ISE BROOK has been the cause of great dissatisfaction during the past year. Pollution of the stream by washings from the engine and other sheds of the Midland Railway Company in the WELLINGBOROUGH URBAN DISTRICT has now been abated, but very serious pollution throughout the year has taken place from the Sewage Works of the KETTERING URBAN DISTRICT—pollution which has been quite apparent several miles below those works. It is true that the pollution has not been constant in degree, for the effluents from the works have sometimes been very good; but it is difficult to believe that crude sewage has not constantly been sent from them down the stream. I have repeatedly expressed the opinion that the amount of land devoted to irrigation is insufficient for the quantity of sewage to be dealt with, and I still hold that opinion. The District Council have given instructions for works of improvement to be put in hand, and it now only remains to be seen what character those works will assume and the extent of their effectiveness. The effluents into the River Nene from the Sewage Farm of the BOROUGH OF NORTHAMPTON have been very good at times, but I regret that they are not always so, and they will be kept under continuous observation.

It is matter for serious consideration that, in regard to river pollution in the County, so great an amount should take place through insufficient management of some of the sewage disposal works which have been instituted. It is not sufficient to merely establish such works to prevent pollution of streams; it is necessary to see that the works are conducted in accordance with their original design. There is, in fact, no economy in those works being understaffed or allowed to become ineffective through the ignorance of those employed to look after them. So far as the Public Health Committee of the County Council is concerned, their action to secure means for preventing pollution is clear, but it must be the business of the District Councils to see that the utilisation of those means is honestly undertaken.

At present, the task of keeping the various sewage disposal works throughout the County under observation is unnecessarily severe, inasmuch as the work of inspection is done solely by myself, and I trust that more local interest will be shown in the future in regard to the good repute of the works which have been instituted for the public good. In respect of the work of the Public Health Committee, it may be mentioned that on January 1st, 1898, there were twenty-eight schemes in existence for the disposal of sewage in as many parishes in the County, which had been completed or were in hand, for which loans had been sanctioned by the Local Government Board or were then being paid for out of current rate. On inspection, I found that nineteen of these were so faulty that measures were taken by the respective local authorities to have them altered and improved. Some of these alterations necessitated expenditure which was met by loans, after inquiries had been held by the Local Government Board. As the result of further inspections, and in spite of many delays—some quite unnecessary—forty-two new works for sewage disposal have since been practically completed, and some other twenty works are now in hand or being designed. These schemes have not been wholly carried through without opposition, but they may be expected to have a markedly beneficial influence on the sanitary condition of the County if the constituent District Councils will only keep a vigilant eye on their proper maintenance.

I am glad to be able to report that the **Supervision of Midwives** during the year has been carried on satisfactorily and without friction. There are now 120 certified midwives, where 427 women previously were engaged in a more or less casual pursuit of the practice of midwifery; but of this number eighteen are district nurses, who are not permitted ordinarily to act as midwives in the absence of a medical practitioner. It may well be anticipated that there will before long be a demand for more midwives, whose place, under existing circumstances, cannot be filled by district nurses. This view has engaged the

serious attention of the Public Health Committee during the past year, and they have been in communication thereon with the Higher Education Sub-Committee, in the endeavour to secure a small number of scholarships or exhibitions for deserving women desirous of qualifying as Midwives under the Act of 1902. So far, their efforts have not met with very encouraging results, but I hope that during the current year something may be done in the direction indicated. The Higher Education Sub-Committee proposed certainly to contribute £100 annually from their funds to the Northamptonshire District Nursing Association, but as, by the rules of that Association, its nurses are debarred from acting commonly as midwives, it is obvious that the objects of the Public Health Committee would not be attained thereby. The number of practising midwives in the County at the present time is about equal to one for each 1,800 of the population. Before the effect of the provisions of the Midwives Act became final, by 1st April, 1905, in regard to the certification of midwives, the ratio was about one midwife to 535 of the population. I do not think that the ratio, particularly in the Rural Districts, should be less than one for each 1,000 of the population. Already several applications have been received from suitable women for information as to the course they should pursue to become certified midwives, and it is evident that the need for more midwives in the rural districts of the County is beginning to be felt. Unfortunately, in rural districts particularly, the women who are usually willing to take up the work of midwifery among the poor are often poor women themselves, to whom the necessary fees for training in an institution represent a difficult if not impossible sum in the absence of substantial assistance. There are but few localities where that assistance can be looked for from private sources, and it is for this reason that I hope it may be found possible to allocate some portion of the funds of the Education Committee towards the establishment of a few scholarships for the education of midwives.

The practice of the midwives in the County during the year 1905 has been satisfactory. They attended 1,831 confinements, equal to 35.4 per cent of the total births for the year, and in respect of these, sent for medical aid in 96 instances, or 5.2 per cent. of the total number of cases attended by them. There were 42 stillbirths, and only one death of an infant before medical assistance arrived. There were only six cases of puerperal fever occurring in the practice of midwives. The work of the Inspector of Midwives, Miss Kingham, has been educational as well as supervisory, and I am glad to note much greater anxiety on the part of the present midwives to take advantage of her experience, to communicate with me when they are in doubt or difficulty, and to comply to the utmost with the rules of the Central Midwives Board. On the whole, I am of opinion that the passing of the Midwives Act, 1902, has enabled work of a very beneficent character to be established on a sound footing in this County.

The subject of the **Disinfection of Clothing** has been forced to the front again by the provisions of section E, Clause 5, of the rules of the Central Midwives Board, which place the responsibility for providing for the stoving of other than the washable clothing of midwives on the local sanitary authority and also by certain circumstances arising in connection with the policy of the Education Committee of temporarily transferring teachers from schools closed on account of infectious sickness to other schools elsewhere in the county. In December, 1903, I reported that there were only seven out of the twenty-eight districts of the County where the disinfection required was available. An appeal to the District Councils who were without proper means for stoving clothing, to take into their consideration the advisability of providing disinfectors, which should be available for the disinfection of the clothing both of midwives and of other persons who might have suffered from or have been brought into contact with infectious sickness, had not met with great response during the succeeding eighteen months.

By June, 1905, only five additional Districts had made suitable provision for the disinfection of clothing, and the lack of this was most marked in the Urban Districts. At the meeting of the County Council, therefore, on 20th July, 1905, it was resolved that the attention of all the Borough and Urban and Rural District Councils in the County which had not yet made provision for the efficient disinfection of infected clothing, be called to the need of such provision being made, and that they be requested to give this matter their early and most careful consideration. It was further resolved, at the same time, that I should draw up a memorandum dealing fully with the subject of disinfection of clothing and the necessary appliances for the assistance of the several Councils in their consideration of the matter. Accordingly, I drew up a Memorandum on the Disinfection of Clothing and Bedding, which was issued in August, 1905, and though up to the present only two additional authorities have made provision for the suitable disinfection of clothing, I am glad to know that the matter has not been entirely shelved by others. I would, however, again call attention to the advantage derivable from the establishment of a disinfecting station to serve a large area, and for the maintenance of which two or more local authorities might agree to combine. The best of appliances could be secured by such an arrangement, as well as the keep of a reliable operator, on the most economical principle, and to the great benefit of the districts concerned

At the request of the General Purposes Committee of the Education Committee, I drew up a Memorandum in reference to the **Attendance at School of Infants under Five Years of Age**, based mainly on statistical records in my office. From the notification returns it appeared

1. That the ratio of incidence of the total notifiable diseases for the whole county was nearly equal as between infants of from one to five years and children of from five to fifteen years, but

2. That the incidence of infectious sickness was generally greater among infants than children in the Urban Districts than it was in the Rural Districts.
3. That the incidence of diphtheria, membranous croup, erysipelas, and scarlet fever for the whole County was greater on infants from one to five years than on children of from five to fifteen years, and
4. That this disproportionate prevalence was extremely marked in respect of the Urban Districts of the County, while the difference was practically insignificant in the Rural Districts ; and lastly
5. That among the notifiable diseases the most prevalent disease among children of school age during the five years 1900—04 had been scarlet fever and the next most prevalent had been diphtheria.

These facts, added to the already established one that the liability to contract scarlet fever and diphtheria only decreases with each year after the age of five years and is less when children are not aggregated together within doors, made it reasonable to assume that the infants of this County would be better circumstanced when out of doors or kept separate in their homes, than if sent to school before they attained the age of five years. A study of the mortality rates of these two diseases, together with those of measles and whooping cough, in the age classes of 1—5 years and 5—15 years, and the effect of these four separate diseases in causing closure of schools—there being a not less average than 28 Parishes in each year where education was thus interrupted from 1898-1904—only tended to emphasise the foregoing assumption, and led me finally to the following conclusions :—

1. That the exclusion from school of infants under five years of age would probably be beneficial to the health

of scholars of five years of age and upwards by lessening their liability to contract infectious disease.

2. That the susceptibility of infants under five years of age to certain infectious diseases is increased by their aggregation together, which is not in the interest of the public health.
3. That the mortality of infants under five years of age from certain infectious diseases is so high as to render it a matter of urgency that every effort should be made to reduce it.
4. That it is most important that the well-known tendency of schools to become centres for the spread of infectious sickness should be reduced to a minimum.
5. That for the purpose of reducing this tendency to the development of epidemics of disease in communities it is most desirable that infants under five years of age should be excluded from the public elementary schools.

In regard to the physical aspect of the question, I think that more expert inquiry is needed before it can be said that this exactly tallies with the public health one. There are certainly good grounds for apprehension that the considerable prevalence of defective eyesight among school children may be the outcome of school conditions, and that apparent stupidity or even mental deficiency in school children may be explainable by defective sense of hearing. These are, however, matters which should be ascertained early in the scholastic life of children, for many defects of sight and hearing in child life are due to slight causes which are removable, and not necessarily likely to become permanent or worse if not subjected to strain. It is at any rate certain that the education of an infant should not be commenced or proceeded with until it is known whether any such defect exists and it has been put under proper treatment. For my own part, I consider that the education of

infants under five years of age should be limited to training in games and drill, frequently out of doors, rarely within them.

It appears from a recent Parliamentary Return, prepared at the instance of the Local Government Board, in regard to **Bye-laws in Rural Districts** that a number of these have been based, with respect to New Streets and Buildings, on what is known as the Urban Model Series. In the year 1901 the Board issued a model series of building bye-laws for Rural Districts, of a less elaborate nature than for Urban Districts, and to this I drew attention in my Annual Report for that year. The Parliamentary Return shows that in a considerable number of cases this new series of bye-laws has found favour with rural district councils. But the fact remains that neither series is in many cases suitable for application throughout a rural district, especially when this contains areas which are altering in their nature. On the one hand merely rural bye-laws are insufficient for the needs of growing urban areas, and, on the other, bye-laws of an urban character, adopted years ago, are unsuitable for many parishes where only the occasional building of labourers' cottages or detached residences is at all likely to take place. The Local Government Board now points out that "parts of rural districts having such special circumstances can always be separately dealt with if such areas can be suitably defined." The Board is inviting Rural District Councils, therefore, to carefully review the circumstances of their Districts for the purpose of seeing what modification of the present bye-laws, if any, is desirable, and what parts should be dealt with more or less on the Urban Model. It is greatly to be hoped that this invitation will meet with a cordial response, and that, as the outcome, while the safeguards of sanitary requirements for new buildings will be effectively preserved, all unnecessary restrictions which tend to interfere with the erection of needed dwellings will be eliminated.

The Return shows that the following Rural Districts in this County have Bye-laws with respect to New Streets or New

Buildings, namely, Brackley, Brixworth, Crick, Hardingstone, Kettering, Northampton, Thrapston, and Wellingborough; but, with the exception of the Brackley, Hardingstone, and Kettering Districts, these Bye-laws are applicable to certain parishes only. In the Daventry, Easton-on-the-Hill, Gretton, Middleton Cheney, Oundle, Oxendon, Potterspury, and Towcester Rural Districts there are no such Bye-laws in operation. The Bye-laws substantially follow the Urban Model Series in the Brixworth, Crick, (part of) Hardingstone, (part of) Kettering, and Northampton Districts, but they exempt from the requirements, as to structure of walls, iron buildings not intended for human habitation; while the Bye-laws substantially follow the Rural Model Series in the Brackley, (part of) Hardingstone, (part of) Kettering, and Wellingborough Districts. The Bye-laws in the Thrapston Rural District relate only to the drainage of buildings, water closets, earth closets, privies, ashpits, and cesspools in connection with buildings.

#### REPORTS OF MEDICAL OFFICERS OF HEALTH.

The following table shows the dates on, and the form in, which the respective Annual Reports were received by me :—

NAME OF DISTRICT.	DATE OF RECEIPT.	FORM.
Raunds Urban .. ..	January 9th, 1906 ..	Printed.
Daventry Rural .. ..	.. .. 10th ..	Typed.
Brackley Borough .. ..	.. .. 15th ..	.. ..
Crick Rural .. ..	.. .. 16th ..	.. ..
		printed later.
Kettering Urban .. ..	.. .. 18th ..	Printed.
Kettering Rural .. ..	.. .. 25th ..	.. ..
Hardingstone Rural .. ..	.. .. 26th ..	.. ..
Finedon Urban .. ..	.. .. 26th ..	.. ..
Northampton Rural .. ..	.. .. 26th ..	.. ..
Irthlingborough Urban ..	February 1st ..	.. ..
Thrapston Rural .. ..	.. .. 2nd ..	.. ..

Higham Ferrers Borough.	..	7th	..	..	..
Wellingborough Urban ..	..	7th	..	..	Typed, printed later.
Towcester Rural .. ..	..	8th	..	..	Printed.
Brackley Rural .. ..	..	12th	..	..	Auto-typed.
Rushden Urban .. ..	..	13th	..	..	Printed.
Oundle Rural .. ..	..	16th	..	..	..
Daventry Borough ..	..	20th	..	..	..
Middleton Cheney Rural.	..	21st	..	..	..
Rothwell Urban .. ..	..	24th	..	..	..
Brixworth Rural .. ..	..	26th	..	..	..
Wellingborough Rural ..	..	28th	..	..	..
Oxendon Rural .. ..	March	1st	..	..	..
Oundle Urban .. ..	..	5th	..	..	..
Desborough Urban .. ..	..	9th	..	..	..
Potterspury Rural .. ..	..	9th	..	..	..
Easton-on-the-Hill Rural.	..	12th	..	..	MS.
Gretton Rural .. ..	..	16th	..	..	Printed.

So far as the printing of the reports is concerned, there is an increase of one—Middleton Cheney—so that there are now only four districts which do not have the Annual Reports printed. Many of the reports furnish evidence of increasing efforts for the improvement of the public health of the county and of good work accomplished. Much undoubtedly remains to be done, but it is evident that steady progress is being made, the effect of which will be apparent hereafter. I am strongly of opinion that the evident growth of the “public health conscience” in this county during recent years has been stimulated by the greater circulation of health reports and the mutual interests these disclose.

#### AREA AND POPULATION.

There has been no alteration, so far as I know, of the area of any District in the Administrative County during the year 1905, the particulars in this respect being the same as the pre-

ceding year. The Urban Districts have a total area of 40,032 acres, and are twelve in number, while the Rural Districts comprise 541,647 acres, and are sixteen in number; the whole area of the County thus amounts to **581,679** acres.

#### AREA IN ACRES OF URBAN DISTRICTS.

<i>Name of District.</i>	<i>No. of Acres.</i>	<i>Name of District.</i>	<i>No. of Acres.</i>
Borough of Brackley	3,489	Kettering .. ..	2,814
Borough of Daventry	3,633	Oundle .. ..	2,228
Borough of Higham		Raunds .. ..	4,460
Ferrers	1,945	Rothwell .. ..	3,638
Desborough .. ..	2,400	Rushden .. ..	3,777
Finedon .. ..	3,661	Wellingborough ..	4,265
Irthlingborough ..	3,722		

#### AREA IN ACRES OF RURAL DISTRICTS.

<i>Name of District.</i>	<i>No. of Acres.</i>	<i>Name of District.</i>	<i>No. of Acres.</i>
Brackley .. ..	42,440	Middleton Cheney..	13,888
Brixworth .. ..	63,647	Northampton ..	16,228
Crick .. ..	18,547	Oundle .. ..	58,677
Daventry .. ..	60,877	Oxendon .. ..	34,491
Easton-on-the-Hill ..	6,341	Potterspury ..	19,914
Gretton .. ..	12,310	Thrapston .. ..	36,836
Hardingstone : ..	32,542	Towcester .. ..	42,457
Kettering .. ..	49,337	Wellingborough ..	33,115

POPULATION.—From the returns of the District Medical Officers of Health, it appears that the estimated population of the County for the year 1905 was 99,283 in the combined Urban Districts, 116,626 in the combined Rural Districts, and **214,909** for the whole Administrative County. As compared with the year 1904, it is thus shown that there has been an increase of population in the combined Urban Districts amounting to 2,170, and in the combined Rural Districts a decrease

of 135 persons, making a total gain in population during 1905 of 2,035 for the whole Administrative County, as against a gain of 1,264 in 1904.

The following reasons are given by certain of the District Medical Officers of Health for the respective conclusions they have arrived at :—

HIGHAM FERRERS BOROUGH.—“ At the middle of the year “ there were 621 inhabited houses in the town, which, taking “ 4.5 as the average number of persons in each house, gives a “ population of 2,794. I have made these figures the basis “ of my calculations.”

DESBOROUGH URBAN.—“ The population at the census of “ 1901 was 3,573, and to the middle of 1905 I have estimated “ it as 3,920.”

FINEDON URBAN.—“ I estimate the population at 4,214, “ being the same as last year.”

IRTHLINGBOROUGH URBAN.—“ During the year 5 new “ houses were built and made ready for occupation, but as “ there were 5 more empty than last year, the number of “ habitable houses remains the same ; likewise the population, “ viz., 4,664.”

KETTERING URBAN.—“ The usual difficulty of exactly “ estimating the population of Kettering still continues. Many “ have left the town, and at one time there was a large number “ of empty houses, but by following the usual mode of calcu- “ lation and consulting those likely to be able to give in- “ formation, I believe I shall be fairly correct in recording the “ population in the middle of the year 1905 at 31,000. Many “ new houses have been built and occupied, and there are not “ nearly so many empty houses as there were.”

RAUNDS URBAN.—“ The estimated population for 1904

“ was 4,376. The number of houses added to the District  
 “ during 1905 has been 1, and the estimated population is  
 “ therefore now 4,381, only an increase of 5 for the year.”

RUSHDEN URBAN.—“ The Rushden Urban District con-  
 “ tains an estimated population of 14,089, as against 13,713  
 “ of last year. The number of inhabited houses is 2,761,  
 “ an increase of 17 from last year.”

WELLINGBOROUGH URBAN.—“ The number of inhabited  
 “ houses in 1905 was 1,551, an increase of 68 houses. This  
 “ gives a population of 20,480, calculating 4.5 persons per  
 “ house.”

DAVENTRY RURAL.—“ There is no reason to think that  
 “ any material change has taken place in the population  
 “ of the district during the year, and I would estimate it at  
 “ the middle of the year as about the same as when the last  
 “ census was taken in 1901, and that is 13,425.”

HARDINGSTONE RURAL.—“ In estimating the population  
 “ of the district for the year, I have assumed it to be stationary.  
 “ Very little building has been carried out, but on the other  
 “ hand I know of no cottages having been closed.”

KETTERING RURAL.—“ I consider that there has been a  
 “ slight increase in the population of the district since my  
 “ last Report, and that at the middle of 1905 it was about  
 “ 12,750. The increase has occurred in Geddington, Newton,  
 “ Burton Latimer, and, possibly, very slightly in Boughton. The  
 “ increase at Geddington and Newton is the most marked, and  
 “ some excellent cottages have been built, and at once occupied  
 “ by the men employed at the Ironstone Workings on the  
 “ Boughton Estate.”

MIDDLETON CHENEY RURAL.—“ The district being a purely  
 “ agricultural one, the population has and must necessarily

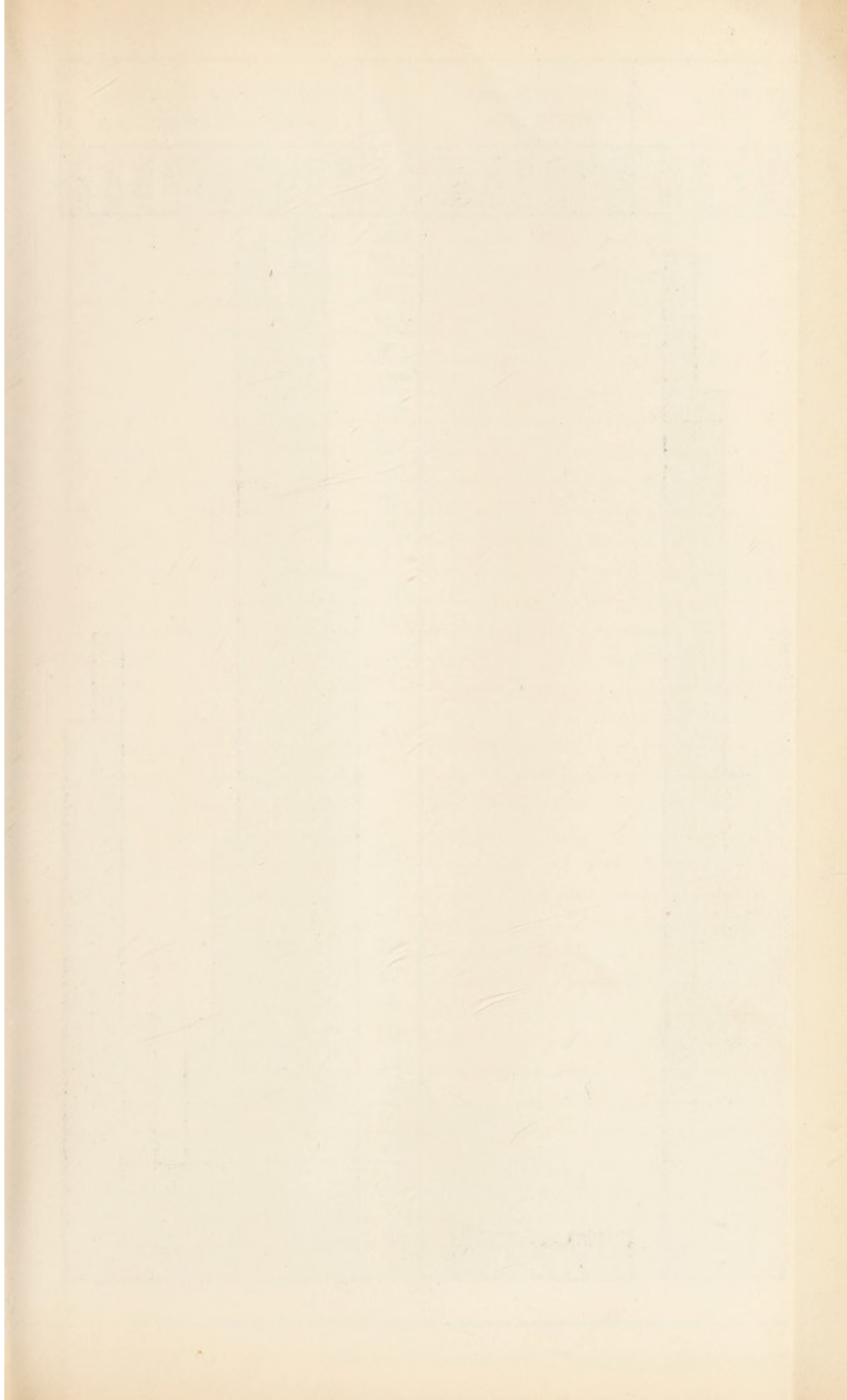


CHART SHEWING RATES OF BIRTHS AND CERTAIN MORTALITIES, &c.



† INCLUSIVE OF DEATHS FROM DISEASES NOT NOTIFIABLE

‡ THE NOTIFICATION OF INFECTIOUS DISEASES ONLY BECAME COMPULSORY IN ALL DISTRICTS ON JANUARY 1<sup>st</sup> 1900.

“decrease, although as far as I can judge this has not been  
“in the past year so extensive as formerly.”

NORTHAMPTON RURAL.—I have estimated the population  
“at the same total as in the previous year. There has been  
“a small amount of building done at Duston, but I believe  
“that this increase is only about sufficient to make up for the  
“deficiency shown to be going on in this district by the last  
“census returns. At present building operations at Weston  
“Favell have not commenced.”

OXENDON RURAL.—“The villages comprised within the  
“area vary in population from 26 to 757 inhabitants, with a  
“total population of 4,202, and an average of 202.”

TOWCESTER RURAL.—“It is estimated that the population  
“of the district has decreased from 11,464 in 1895 to 10,282  
“in 1905, which is at the rate of 107 per annum.”

WELLINGBOROUGH RURAL.—“The Wellingborough Rural  
“District consists of two sub-divisions, viz., the Earls Barton  
“district and the Higham Ferrers district, with an estimated  
“population of 13,568, of which 6,355 comprise the Earls  
“Barton district, and 7,213 the Higham Ferrers district.”

#### BIRTHS.

There was no break in the remarkably continuous fall of the birth-rate of the County which commenced with the year 1898. For the year 1905 the county birth-rate was only 23.93 per 1,000 of the population, in the year 1897 the rate was 29.62, thus showing a fall in the succeeding eight years of 5.69 births per 1,000 of the population. This fall is more or less shared in by the whole of England and Wales and the large towns, but it is to be noticed that the fall of the birth-rate during 1905 is much more marked in the large towns than in England and Wales as a whole. So too it must be noted that, though the birth-rate for the County shows a definite decrease, it is in the Urban Districts that the fall is very marked, while

the Rural Districts show a very slightly increased birth-rate as compared with the year 1904. Whatever the significance of this last fact may be it is at least remarkable that there should be an increased birth-rate with a declining rural population and a falling birth-rate with an increasing urban population.

From the statement in the Quarterly Return (No. 228) of the Registrar-General, it appears that "the birth-rate in England and Wales in 1905 was 27.2 per 1,000 of the population, which is 0.7 per 1,000 below the rate in 1904, and lower than the rate in any other year on record." It will be remembered that the passing of the Registration Act was in 1837, and the birth-rate record for 1905 has, therefore, no mere transitory significance. As I pointed out in my Report for 1904, the importance of the decline in the national birth-rate lies in its relation to the rate of infantile mortality. Unless the fall in the birth-rate is compensated for by a corresponding saving of infant life, there must be a loss of vital income to the nation, and it is the absence of a sufficient measure of such compensation which is so much exercising public opinion at the present time. In the year 1904 there was a serious rise in infantile mortality in this County, and I regret to say that, in spite of a slight decrease of such mortality in 1905, the record for the past year is far from satisfactory. Every effort is necessary, therefore, in the interests of the nation to endeavour to secure a greater proportional saving of infant life.

During the year 1905 there were 5,168 births, as against 5,265 in the year 1904, registered in the Administrative County; of these, 2,406 were in the Combined Urban Districts, as against 2,522 in 1904, and 2,762 in the Combined Rural Districts, as against 2,743 in the year 1904.

The average birth-rate of the whole Administrative County per 1,000 of population, and of the Combined Urban and Rural Districts respectively, for the years 1896—1905,

is shown in the following table, together with, for purposes of comparison, the corresponding rates for England and Wales, and for the 76 large towns in England and Wales, taken from the Registrar General's returns :—

Areas.	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Adminis- trative County ..	<b>29.08</b>	<b>29.62</b>	<b>29.14</b>	<b>28.54</b>	<b>27.33</b>	<b>27.15</b>	<b>25.96</b>	<b>25.53</b>	<b>24.61</b>	<b>23.93</b>
Urban Districts ..	33.12	33.73	33.0	32.15	30.62	30.38	27.88	26.94	25.96	24.23
Rural Districts ..	26.75	27.18	26.61	26.10	25.04	24.08	24.43	24.38	23.49	23.68
England & Wales ..	29.7	29.6	29.4	29.2	28.9	28.5	28.6	28.4	27.9	27.2
*Large Towns in England & Wales ..	30.7	30.7	30.3	30.2	29.4	29.2	30.0	29.6	29.1	28.2

\*It is to be noted that the group of large towns numbers 76 from the year 1902 ; it consisted of 33 towns in preceding years.

The birth-rate varied in the Urban Districts from 17.1 per 1,000 of the population in the Borough of Higham Ferrers to 32.1 per 1,000 in the Irthlingborough District, while the variation in the Rural Districts was between 15.8 per 1,000 in the Gretton District and 27.5 per 1,000 in the Potterspury District.

Arranged in the order of their birth-rates, the Urban Districts stand thus :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Irthlingborough ..	32.1	Rushden ..	23.2
Desborough ..	28.8	Raunds ..	23.0
Finedon ..	26.3	Wellingborough ..	22.5
Kettering ..	25.2	Daventry Borough ..	21.6
Brackley Borough ..	23.9	Oundle ..	19.5
Rothwell ..	23.9	Higham Ferrers Borough	17.1

The position of the Rural Districts in respect of their birth-rates is as follows :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Potterspury ..	27.5	Towcester ..	23.3
Daventry ..	27.1	Kettering ..	22.9
Crick ..	26.3	Brixworth ..	22.5
Easton-on-the-Hill ..	25.9	Middleton Cheney ..	22.3
Thrapston ..	25.8	Oundle ..	21.8
Northampton ..	24.8	Hardingstone ..	21.5
Wellingborough ..	23.8	Oxendon ..	20.4
Brackley ..	23.6	Gretton ..	15.8

#### DEATHS.

**General Mortality**—I have repeatedly asserted that, in my opinion, the general mortality rate of this County was capable of large reduction if public health administration were strenuously pursued, and I still maintain that a general mortality rate of 12.0 per 1,000 is by such means attainable. The rate for the year 1905 is the lowest on record, having been 12.86 per 1,000 of the estimated population, as against the average of 14.35 per 1,000 for the previous nine years. The nearest approach to this rate was in the year 1902, when it stood at 12.96 per 1,000 of the population. This improvement in the general mortality rate of the County has been synchronous with improvement in the like rate for England and Wales ; but the excess of improvement in respect of the County during the period named has amounted to 0.33 per 1,000 of population, which is equal to a saving of life in this County of 72 persons on the basis of last year's estimated population. Taken in another way, the general mortality rates for the past ten years may be fairly used as an index of the condition of public health administration in the County. The average death-rate of the county for the five years 1896—1900 was equal to 15.32 per 1,000 of the population, while for the succeed-

ing five years it has been 13.13, and the excess of improvement in the County over the corresponding improvement in England and Wales between these two periods has amounted to 0.4 per 1,000 of the population, or an average saving of over 80 lives per annum in the latter period. These results are so far satisfactory and encouraging; but I take this opportunity to point out how great may be the influence on the general death-rate of increased sanitary activity. It will be seen later on that the infantile mortality rate for 1905 was over ten per cent. of the births. If, on the other hand, it had been only ten per cent. of the births, the general mortality rate per 1,000 of population would have been 12.56, or a reduction of 0.3 per 1,000. The scope for obtaining improved statistical returns of the County in the future is thus manifest.

The total number of deaths registered in the Administrative County during the year 1905 was 2,812, as against 2,964 in 1904, 2,838 in 1903, and 2,785 in 1902; of these 1,175 occurred in the Combined Urban Districts, and 1,637 in the Combined Rural Districts. The total deaths registered, however, are subject to deductions for the purpose of arriving at the nett mortality of the County. They include, in respect of the Combined Rural Districts, deaths which were recorded in the Berry Wood Asylum, situated in the Northampton Rural District, and others in the Infectious Diseases Hospital of the County Borough of Northampton, which is situated in the Brixworth Rural District; of the former 28, and, of the latter, 6, were of persons not belonging to the Administrative County. These deaths have been excluded, therefore, in working out the nett-mortality rate for the Administrative County in the subjoined table. The deaths of persons belonging to the Administrative County which occurred in Berry Wood Asylum, have been allocated, as previously, to the several Districts to which they belonged, and the number, age, and cause of death, and the extent of such allocation, is shown on Table III. of this Report. For the preparation of that Table I gratefully

acknowledge my indebtedness to the Medical Superintendent of the Asylum.

The following table shows the general mortality rates for the Administrative County, England and Wales, and the large towns, during the years 1896—1905 :—

Districts.	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Administrative County ..	15.02	16.13	15.11	15.13	14.96	13.05	12.96	13.09	13.7	12.86
England & Wales ..	17.1	17.4	17.5	18.3	18.3	16.9	16.3	15.4	16.2	15.2
Large Towns in England & Wales ..	18.9	19.0	19.0	20.2	19.5	18.6	17.4	16.3	17.2	15.7

The following notes on general mortality are to be found in the Reports of the Medical Officers of Health for the Districts named :—

BRACKLEY BOROUGH.—“ During the year 47 deaths occurred in the district ; of these, 10 were of non-residents, who died in the Workhouse. The nett death-rate (calculated on a population of 2,467) was 15 per 1,000. The rate for the previous year was 12.5, and the average for ten years was 12.”

DAVENTRY BOROUGH.—“ Of the deaths at the Workhouse, 2 of the deceased belonged to the Daventry Urban District, whilst the remaining 16 came from the Rural District. This makes 54 for Daventry. From this 54, 1 ought to be deducted (that of a man, a total stranger, who was killed on the Railway inside the Urban District), making a total of 53 persons actually belonging to Daventry who died during

“ the year. The death-rate should therefore be reckoned on  
 “ 53, and not on 54, as shown on Table I. In the former case  
 “ the death-rate would be 14.02 per 1,000 of the population,  
 “ and in the latter 14.28; both of which figures are lower  
 “ than those of 1904, (14.55), and well below the average for  
 “ the past ten years, (15.086).”

HIGHAM FERRERS BOROUGH.—The death-rate works out  
 at 9.6 per 1,000 of the resident population, and “ is much  
 “ below the average for the county.”

DESBOROUGH URBAN.—“ Although the death-rate of 13.01  
 “ indicates a slight increase upon that recorded for the previous  
 “ year, it is still below the average for the years 1895—1904,  
 “ and must not be regarded as an unfavourable one, especially  
 “ when the fact includes such a large proportion of children  
 “ below the age of one year, viz., one fourth of the total number  
 “ of deaths registered.”

FINEDON URBAN.—“ The number of deaths registered  
 “ during the year was 46, giving a rate of 10.9 per 1,000 per  
 “ annum. This rate is the lowest yet recorded, save one.  
 “ In 1900 it was 10.5 per 1,000 per annum. This is a very  
 “ satisfactory rate.”

IRTHLINGBOROUGH URBAN.—“ Fifty-five deaths occurred  
 “ during the year, giving a rate of 11.79 per 1,000 of the popu-  
 “ lation, compared with 56 deaths and a rate of 12 last year.”

OUNDLIE URBAN.—“ The number of deaths was 38, a  
 “ decrease of 3 on 1904; 10 of these deaths, however,  
 “ were those of non-residents, so that the actual mortality of  
 “ the district was 28, giving the satisfactory average of 11.6  
 “ per 1,000.”

RAUNDS URBAN.—“ The number of deaths from all causes  
 “ and at all ages was 36; of these, 16 were males and 20 females.

“ The death-rate therefore stands at 8.2 per 1,000 of the  
 “ estimated population, the lowest ever recorded here, the near-  
 “ est to it being 9.97 in 1899. The rate last year was 10.7,  
 “ and in 1903 it was 10.69.”

RUSHDEN URBAN.—“ The registered deaths have been  
 “ 117, giving a death-rate of 8.3 per 1,000, being considerably  
 “ below the average of the whole of England and Wales.”

WELLINGBOROUGH URBAN.—“ The total number of deaths  
 “ in the District was 225, giving a rate of 10.9 ; but without  
 “ the non-residents there were 207 deaths, giving a rate of 10.1  
 “ only, which is the lowest yet recorded.”

BRACKLEY RURAL.—“ The death-rate is the lowest I  
 “ have recorded, but too much importance must not be at-  
 “ tached to these figures, as the district is small and a few deaths  
 “ carried over to a succeeding year or left over from a previous  
 “ one materially alter their appearance.”

BRIXWORTH RURAL.—“ Total deaths registered in the  
 “ District in 1905 were 152, of which 6 occurred in the Borough  
 “ Hospital, and were non-residents ; therefore the nett deaths  
 “ in the District were 146, as against 183 for 1904, showing a  
 “ decrease of 37 and a death-rate of 12.3 per 1,000. This  
 “ is the lowest death-rate for the last ten years.”

CRICK RURAL.—“ The number of deaths registered  
 “ amounted to 29, and consisted of 14 males and 15 females,  
 “ but adding the deaths of 2 persons belonging to the District  
 “ which occurred in the Union Workhouse, Rugby, the total  
 “ number of deaths amounted to 31, representing the com-  
 “ paratively low death-rate of 13.6 per 1,000, which is consider-  
 “ ably below the average of previous years.”

DAVENTRY RURAL.—“ The number of deaths registered  
 “ at all ages was 167 ; males 82, females 85. This gives a

“ death-rate of 12.4 per 1,000, which is low, and, I consider, very satisfactory.”

GRETTON RURAL.—“ The death-rate is slightly below the average for the preceding decennium.”

HARDINGSTONE RURAL.—“ The total number of deaths at all ages was 103, compared with 118 in 1904, and 94 in the two previous years. This gives a death-rate of 13 per 1,000 compared with 15 in the previous year. This is a fairly good average, though it has been less in several years. The average for the last ten years is 113.6 deaths, with a death-rate of 13.8 per 1,000. Of these deaths there were 14 in persons over 80 years of age, and last year there were 16 deaths over this age, which shows, in my opinion, the large number of old people that are gradually dying off in the rural districts, and relatively they are not replaced by younger ones who migrate into the towns.”

NORTHAMPTON RURAL.—“ The total number of deaths for the whole district was 151, giving a ratio per 1,000 of 23.7. Of these deaths, however, 83 occurred in Berry Wood Asylum, so that, deducting these, we reduce our total to only 68 deaths of residents in the district, giving a ratio of only 12.7 per 1,000. Last year there were 79 deaths, with a ratio of 14.7 per 1,000, and the average for the last ten years is 78 deaths, with an average of about 14 per 1,000, so that the death-rate for the district is exceedingly low, and was only as low as this in 1902. The deaths in Berry Wood Asylum were also as low as they have been during the last ten years.”

TOWCESTER RURAL.—“ In the combined district there were 168 deaths at all ages, and 25 of these were children under one year. The death-rate resulting from these figures is 16.33 per 1,000, a higher rate than has obtained since 1896.”

WELLINGBOROUGH RURAL.—“ The number of deaths registered have been 162, of which 81 were in the Earls Barton district, and 81 in the Higham Ferrers district, giving a death-rate of 11.93 for the whole district, as against 12.83 of last year.”

The nett death-rate varied in the Urban Districts from 8.4 in the Raunds and Rushden Districts to 14.9 per 1,000 of the population in Brackley Borough. The variation in the nett death-rate in the Rural Districts was from 12.1 per 1,000 of the population in the Wellingborough District to 17.8 per 1,000 of the population in the Oxendon District.

#### DEATHS.

Arranged in the order of their nett death-rates, the Urban Districts stand thus :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Raunds .. ..	8.4	Irthlingborough .. ..	12.0
Rushden .. ..	8.4	Kettering .. ..	12.3
Wellingborough .. ..	10.4	Desborough .. ..	13.0
Higham Ferrers		Rothwell .. ..	13.9
Borough .. ..	10.7	Daventry Borough .. ..	14.5
Finedon .. ..	11.1	Brackley .. ..	14.9
Oundle .. ..	11.6		

The position of the Rural Districts in respect of their nett death-rates is as follows :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Wellingborough .. ..	12.1	Crick .. ..	13.5
Brackley .. ..	12.3	Potterspury .. ..	13.5
Middleton Cheney .. ..	12.4	Gretton .. ..	13.8
Daventry .. ..	12.5	Thrapston .. ..	15.7
Northampton .. ..	12.7	Easton-on-the-Hill .. ..	16.4
Brixworth .. ..	12.8	Towcester .. ..	16.7
Kettering .. ..	13.1	Oundle .. ..	16.9
Hardingstone .. ..	13.3	Oxendon .. ..	17.8

**Infantile Mortality.**—In regard to the mortality of infants under one year of age, I have already referred to the unsatisfactory measure of compensation it affords to the declining birth-rate, although, happily, there was a less proportion of such mortality in 1905 than there was in the year 1904. In this County the infantile mortality rate ought not to be habitually above ten per cent of the births, and the exercise of care on the part of the guardians of infant life would certainly bring the mortality below that percentage. A reference to the Mortality Chart will show at once that the rate for 1905 can hardly be regarded as satisfactory. In order to aid the endeavours of others to bring about a more creditable condition of things I drew up a card of advice to mothers on the management of their Infants, and this was printed and circulated by order of the Public Health Committee. The distribution of this card was placed in the hands of the District Medical Officers of Health, who are naturally in touch with the medical men practising in their districts and local health and nursing associations, and of the Inspector of Midwives. The card has so far met with a gratifying reception, as may be seen in references thereto from some of the Annual Reports, and it is greatly to be hoped that some beneficial effect may be observable in future infantile mortality records. The rate of infantile mortality for the year 1905 in this County is all the more unsatisfactory when compared with that for England and Wales as a whole, for whereas the County rate was only 1 per 1,000 births below the average for the nine preceding years, that for England and Wales was 21 below the average. This fact is all the more important, in regard to the statistics of the County, when read with the facts already shown in respect of the improved general mortality of the County, and is clearly indicative of the need of special efforts being made to bring about a permanent reduction in the infantile mortality of many of the Districts.

The average infantile death-rate for the whole Adminis-

trative County per 1,000 births, and of the Combined Urban and Rural Districts respectively, for the years 1896—1905, is shown in the following table, together with, for purposes of comparison, the corresponding rates for England and Wales, and for the large towns in England and Wales, taken from the Registrar-General's Returns :—

Districts.	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Adminis- trative County ..	118	130	127	129	109	102	98	103	116	113
Urban Districts ..	131	137	151	143	126	109	116	114	117	120
Rural Districts ..	108	125	107	118	95	96	80	92	115	106
England & Wales ..	148	156	160	163	154	151	133	132	146	128
Large Towns in England & Wales ..	168	176	178	181	172	168	145	144	160	140

The following extracts from the Annual Reports of the District Medical Officers of Health relate to this subject :—

BRACKLEY BOROUGH.—“ As regards Infantile Mortality, “ this important subject has been attacked by the Local “ Government Board and by the County Council. The former “ body has chosen the usual official method of getting out “ an elaborate statistical form (see Table 5) which can be of “ no practical value whatever. The County Council, on the other “ hand, have issued a card of ‘ Instructions to Mothers on the “ Feeding of Infants,’ which is likely to have a marked effect “ on what is perhaps the chief cause of excessive child mor- “ tality, viz., improper feeding. These cards have been issued “ in quantities to the medical officers and midwives for dis- “ tribution amongst the people.”

HIGHAM FERRERS BOROUGH.—“ There were five deaths  
 “ of children under one year, which gives an infantile death-  
 “ rate of 104.1 per 1,000 of the registered births. Although  
 “ this is below the average for the county, it is higher than  
 “ I have had to record since 1900. The causes that lead to  
 “ a high infantile death-rate are complex, and the new statis-  
 “ tical tables in reference to this subject issued this year will  
 “ doubtless be the means of providing valuable information  
 “ bearing upon this very important question. At the same time  
 “ it is clearly due in no small degree to the lack of knowledge  
 “ amongst mothers as to the proper feeding and hygienic  
 “ management of their infants, and it appears to me that what  
 “ is needed is a systematic visiting of the homes of the children  
 “ where this ignorance prevails by ladies able to give the ne-  
 “ cessary instruction to the mothers. The excellent cards  
 “ issued by the Medical Officer of Health for the County would  
 “ serve as a basis for some such methodical diffusion of this  
 “ much-needed knowledge.”

DESBOROUGH URBAN.—“ There were thirteen deaths below  
 “ the age of one year, equivalent to an infant rate of mortality  
 “ of 115 to 1,000 births registered, which is decidedly lower than  
 “ that of last year, also below the average for the years 1895—  
 “ 1904, viz., 132. But notwithstanding this gratifying fact,  
 “ there yet remains much room for improvement. Through-  
 “ out the whole country the frightful loss of baby life has been  
 “ increasing for some years past, and a large proportion of  
 “ the victims must be considered as sacrificed to the ignorance  
 “ or carelessness of parents. So grave has the evil become  
 “ that it compels the attention of serious thinkers who have  
 “ at heart the nation’s welfare. The more closely we look  
 “ into the causes of infantile mortality the more certainly  
 “ shall we feel convinced that it can be materially reduced.  
 “ The gravity of an excessive mortality amongst infants  
 “ does not end with the mere loss of life which it implies.  
 “ It must be considered in relation to the decreasing birth-

“ rate, and with both these factors operating against the growth  
 “ of the population it is the more imperative that no means  
 “ should be neglected of securing the survival of the greatest  
 “ possible number of those infants born to the state. The mere  
 “ knowledge of the evil is in itself a first and necessary step  
 “ towards its cure; and with the sanitary authority doing  
 “ its duty in promoting healthy surroundings, and mothers  
 “ giving their offspring that due care and attention derived  
 “ from a knowledge of those truths which determine the health  
 “ of their children, a solution of this important question would  
 “ soon be arrived at. But, unfortunately, mothers are only  
 “ too often found entirely ignorant of the hygiene of the nursery  
 “ and the simplest scientific facts concerning the care and  
 “ feeding of infants. It is, no doubt, with the earnest endeavour  
 “ to diminish the awful waste of human life, and to reduce  
 “ an enormous amount of preventable suffering, that the  
 “ Public Health Committee of the Northamptonshire County  
 “ Council have had compiled and issued printed cards furnishing  
 “ ‘Advice to Mothers on the Management of their Infants.’  
 “ These cards are being distributed in all quarters in this dis-  
 “ trict as occasion requires, and it is to be hoped that the in-  
 “ formation therein contained will be ‘marked, learned, and  
 “ inwardly digested,’ with happy results to all concerned.”

FINEDON URBAN.—“ Thirteen deaths occurred under one  
 “ year of age, giving a rate of 117.1 per 1,000 births registered.  
 “ This rate, whilst still too high, is the lowest I have yet recorded,  
 “ with two exceptions. In 1898 it was 113.8, and in 1900  
 “ it was 90.2.”

IRTHLINGBOROUGH URBAN.—“ 14 deaths took place under  
 “ one year of age, giving a rate of 93.3 per 1,000 births  
 “ registered, compared with 11 deaths and a rate of 80  
 “ last year. This slightly increased rate will, I think, still  
 “ very favourably compare with that of other Urban Districts,  
 “ as the average for the whole of the County last year was 117.

“ Of the 14 deaths, 2 were stated to be due to acute  
 “ General Tuberculosis, 3 to Whooping Cough, 1 to Pneu-  
 “ monia (Coroner), 3 to Premature Birth, and 5 to con-  
 “ genital weakness. Mr. Paget, County Medical Officer of  
 “ Health (with the approval of the Public Health Committee  
 “ of the County Council), has had printed cards of ‘ Advice to  
 “ Mothers on the Management of Infants.’ These have been  
 “ sent, according to number asked for, to all the Medical Officers  
 “ of Health in the County, for distribution in their respective  
 “ districts. I am quite sure that, if the instructions given  
 “ are faithfully carried out by the mothers, the deaths of infants,  
 “ due to errors of feeding will be much diminished.”

KETTERING URBAN.—“ The Infant mortality is unfor-  
 “ tunately generally high in Kettering. Out of the 784 births,  
 “ 109 have died under one year of age, making a death-rate of 139  
 “ in the 1,000 births. This mortality is certainly increased  
 “ by improper feeding, and especially by over-feeding, and  
 “ doctors find it very difficult to make mothers understand  
 “ that it is not the amount of food that is swallowed, but only  
 “ the amount that the infant is able to digest that nourishes  
 “ it. Mr. Paget, the County Medical Officer, has lately pub-  
 “ lished charts for the guidance of mothers, which will probably  
 “ be of service.”

RAUNDS URBAN.—“ The number of children who died  
 “ under one year of age was 10, the numbers being 13  
 “ and 14 in the two previous years; this gives an infantile  
 “ death-rate of 99.01 per 1,000 births registered. This is an  
 “ improvement on past years, but is still much higher than  
 “ it ought to be. The causes were principally convulsions,  
 “ tuberculosis, premature birth, and no doubt improper feeding  
 “ and bad management has a lot to answer for. . . . I have  
 “ to thank Mr. Paget, the County Medical Officer of Health,  
 “ for a supply of printed cards for hanging up with ‘ Advice  
 “ to Mothers on the Feeding and Management of Infants,’ ”

“ and, when we consider that about one-seventh of the children  
 “ born in England and Wales never reach the age of one year,  
 “ we welcome anything likely to help to diminish this terrible  
 “ mortality. These cards I consider to be a most excellent  
 “ idea, and in every case where I have already recommended  
 “ them I find the mothers very thankful and willing to carry  
 “ out the advice given.”

RUSHDEN URBAN.—“ The infant mortality has been  
 “ 109.75 per 1,000, of which 12 have been premature,  
 “ as against 118.86 per 1,000 last year.”

WELLINGBOROUGH URBAN.—“ The deaths of children  
 “ under one year of age was 54, giving a rate of 117.1. Fifteen  
 “ of these deaths were from Premature Birth and thirteen others  
 “ under one month.”

BRIXWORTH RURAL.—“ The number of deaths under one  
 “ year was 23, as against 34 for the two preceding years res-  
 “ pectively, the death-rate being 85.9 per 1,000 births regis-  
 “ tered, as against 125 for 1904. Here again is the lowest  
 “ death-rate for at least ten years.”

CRICK RURAL.—“ The number of deaths of infants under  
 “ one year represents the very low rate of infant mortality  
 “ of 66 per 1,000 births.”

DAVENTRY RURAL.—“ The Infant Mortality under one  
 “ year was 90 per 1,000 births, and, though a little higher  
 “ than for some years, may still be considered as satisfactory.”

GRETTON RURAL.—It is to be noted that, in this District,  
 only “ one death occurred in infancy.”

HARDINGSTONE RURAL.—“ The number of deaths in chil-  
 “ dren under one year of age was only 14—ten less than  
 “ in the previous year, when the mortality in this class was

“considerable. This gives a ratio per 1,000 births registered  
 “of 83, which is fairly good. The average for the ten years  
 “is 17.9 deaths in this class, with a ratio per 1,000 births regis-  
 “tered of 97.”

MIDDLETON CHENEY RURAL.—“There has been a satis-  
 “factory decrease, considering the birth-rate, of infant mor-  
 “tality during the past year.”

NORTHAMPTON RURAL.—“The number of deaths in child-  
 “ren under one year of age was only 12, giving a ratio  
 “per 1,000 births registered of 90. This ratio is exactly the  
 “same as last year, when there were 13 deaths in this  
 “class, but then the total number of births was larger. This  
 “is a much lower average than the mean for the last ten years,  
 “which stands at 121.”

OUNDLE RURAL.—“The death-rate also among children  
 “under one year is undoubtedly too high, though our rate,  
 “which averages 92.2 per 1,000, is not so bad as more crowded  
 “areas, especially where the women work in factories. A  
 “consideration of this question has led many people, among  
 “whom may be numbered the Health Committee of the North-  
 “amptonshire County Council, to urge for greater care in the  
 “management of young children. Cards have been drawn  
 “up by the County Medical Officer of Health, giving valuable  
 “instruction for the feeding of infants. (I shall be glad to  
 “supply these cards to anyone applying.) A new Table will  
 “be found, dealing specially with the death-rate of infants.  
 “I note the absence of Diarrhœa as a cause; it is not prevalent  
 “in country districts to any extent.”

OXENDON RURAL.—“The Infant Mortality Rate is 127.90,  
 “against 151.98 in 1904, and an average of 90 per 1,000 births  
 “registered. . . . The causes of death were various, five  
 “being under one week, and not showing any remediable con-

dition, the others the accidents appertaining to infant life. The County Council for Northamptonshire have instituted a Card of Instructions for the feeding and management of infants, for distribution within the area."

THRAPSTON RURAL.—"The death-rate also of children under one year is undoubtedly too high. Last year it was 142 in this district. No doubt there is much ignorance with regard to the feeding of children. . . . Cards have been drawn up by the County Medical Officer of Health giving valuable instruction for the feeding of infants, which can be had free."

TOWCESTER RURAL.—"The ratio of deaths under one year of age to the births is 104.16 to 1,000. Table V., dealing with infantile mortality, appears for the first time, and it will be noticed that Pulmonary diseases account for nearly one third of the total deaths under one year."

WELLINGBOROUGH RURAL.—"The infant mortality has been 132.71 per 1,000 births for the whole district, or Earls Barton 146.49 and Higham Ferrers 119.76. The infant mortality is very much too high, and I can only attribute it to improper feeding and want of care on the part of mothers. There is an increasing dislike at the present time to the nursing of infants, and many are brought up by hand on most unsuitable food. Cards of instructions on the proper feeding of infants have been circulated throughout the district. These instructions, if carried out, ought to materially diminish the mortality."

The infantile mortality-rate varied in the Urban Districts from 73.1 per 1,000 births in Daventry Borough to 180.3 per 1,000 births in the Rothwell District. The variation in this mortality in the Rural Districts was from 41.6 per 1,000 births in the Gretton District to 147.8 per 1,000 births in the Potterspury District.

Arranged in the order of their infantile mortality-rates the Urban Districts stand thus :—

	<i>Per 1,000 Births.</i>		<i>Per 1,000 Births.</i>
Daventry Borough ..	73.1	Rushden ..	109.7
Brackley Borough ..	84.7	Desborough ..	115.0
Oundle .. ..	85.1	Finedon ..	117.1
Irthlingborough ..	93.3	Wellingborough ..	117.1
Raunds .. ..	99.0	Kettering ..	139.0
Higham Ferrers Borough	104.1	Rothwell ..	180.3

The position of the Rural Districts in respect of their infantile mortality-rates is as follows :—

	<i>Per 1,000 Births.</i>		<i>Per 1,000 Births.</i>
Gretton .. ..	41.6	Kettering ..	95.5
Crick .. ..	66.6	Oundle ..	101.4
Middleton Cheney ..	74.0	Towcester ..	104.1
Easton-on-the-Hill ..	78.9	Brackley ..	123.5
Hardingstone ..	82.8	Oxendon ..	127.9
Brixworth .. ..	86.1	Wellingborough ..	132.7
Northampton ..	90.2	Thrapston ..	142.3
Daventry .. ..	90.6	Potterspury ..	147.8

**Phthisis Mortality.**—I am very glad to be able to record the lowest death-rate per 1,000 of population from phthisis of which I have any knowledge in regard to this County. But what is of greater consequence is the sign of progressive influence of sanitary administration on the prevalence of this largely preventable disease. For the five years 1896--1900, the average rate of phthisis-mortality per 1,000 of the population was 1.13 per annum, while for the succeeding five years the average rate is 0.88 per annum, or an average fall of 0.25 per 1,000 of population. This is very satisfactory, and affords encouragement for further efforts in the removal of inimical health conditions. The total number of deaths registered in the Administrative County as due to Phthisis

during the year 1905 was 165, being distributed as follows :— 69 belonged to the Combined Urban Districts, and 96 to the Combined Rural Districts. The number which occurred in the Berry Wood Asylum of persons belonging to the Administrative County was 8, as against 5 in the year 1904, and these have been duly allocated to the Districts from which they came. Of the total deaths from Phthisis, 5 were of children under five years of age, or 3.03 per cent. of the total deaths from this disease, as against 0.49 per cent. in 1904, 2.74 per cent. in 1903, 3.27 per cent. in 1902, 2.8 per cent. in 1901, 5.02 per cent. in 1900, 5.34 per cent. in 1899, 9.6 per cent. in 1898, 5.85 per cent. in 1897, and 8.15 per cent. in the year 1896. These figures go to show, at any rate, a smaller proportion of deaths of young children from phthisis during the last five years, as compared with the preceding five years, and it is reasonable to hope that this favourable fact is the result of some greater care in their up-bringing. The Crick and Easton-on-the-Hill Rural Districts show no mortality from phthisis during the year 1905, as against one Rural District showing like freedom in the year 1904.

The following table shows the number of deaths from phthisis, and the rate per 1,000 of the population for the whole Administrative County for the ten years 1896—1905 :—

Area.	Phthisis.	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Adminis- trative County	No. of Deaths.	233	222	229	243	219	178	214	182	204	165
	Rate per 1,000 ..	1.17	1.10	1.13	1.19	1.06	0.85	1.01	0.85	0.95	0.76

The following are the more important references to the subject of this mortality in the Reports of the Medical Officers of Health :—

DESBOROUGH URBAN.—“ There was, happily, a decrease  
 “ in the number of deaths from Phthisis, three having occurred  
 “ in comparison with four recorded for the year 1904, giving  
 “ a death-rate of .76 per 1,000. The ages at death were 15,  
 “ 37, and 39 respectively.”

IRTHLINGBOROUGH URBAN.—“ Phthisis, or Consumption  
 “ of the Lungs, caused 3 deaths, giving a rate of .85, com-  
 “ pared with 5 deaths and a rate of 1.07 last year. Two  
 “ deaths occurred from Acute General Tuberculosis in infants,  
 “ 2 and 7 months old respectively, thus giving a total  
 “ of 7 deaths from Tubercular Diseases and a rate of 1.07,  
 “ compared with 9 deaths and a rate of 1.9 last year. The  
 “ general reduction, year by year, in the number of deaths  
 “ from this disease is exceedingly gratifying.”

KETTERING URBAN.—“ The number of deaths from  
 “ Phthisis in 1904 was unusually large, and, as I remarked  
 “ at that time, probably accidentally increased. In 1905  
 “ the mortality from this disease was a little more than half  
 “ of that of the previous year. In my last report I recorded  
 “ the opening of the fine block of buildings in connection with  
 “ the Union Infirmaries, for the treatment, on the most modern  
 “ plan, of this disease. The result so far has been more favour-  
 “ able than could have been hoped, and if it continues at the  
 “ same rate, the outlay will before long be repaid. The  
 “ Kettering Guardians were almost the pioneers in this matter,  
 “ and other Unions are already following their example. The  
 “ following results will, I feel sure, be interesting. The con-  
 “ clusion arrived at by the doctors who have been interested  
 “ in this matter is that advanced cases do not thoroughly re-  
 “ cover under the treatment, although their lives are prolonged,  
 “ but that incipient cases very rapidly improve, and frequently  
 “ recover :—

	MEN.	WOMEN.
“ Admitted.....	29	10
“ Discharged cured .....	5	3
“ Discharged relieved .....	5	6
“ Transferred to Infirmary:—		
“ Discharged unrelieved .....	2	0
“ Disease progressing .....	10	0
“ Remaining under treatment .....	7	1

RAUNDS URBAN.—“ I am glad to say we have had only 2  
 “ deaths this year from Pulmonary Phthisis, as against 15  
 “ last year; and from other tubercular diseases 4, being  
 “ principally tuberculous children under 1 year old.”

KETTERING RURAL.—“ Thirteen deaths occurred from  
 “ Phthisis. At Burton 4, Broughton 2, Cransley 1,  
 “ Weekley 1, Geddington 1, Weldon 1, Little Oakley  
 “ 1, Rushton 1. The cases mentioned in my Report  
 “ for last year as recovered after treatment at the Union Sana-  
 “ torium have been able to continue at their work ever since,  
 “ and are, apparently, still quite well.”

In regard to the foregoing extracts it is plain that by far  
 the most interesting and important is the one which gives re-  
 sults from the open-air treatment of phthisical patients in the  
 special wards of the Kettering Union Infirmary. The number  
 so far placed under treatment has not been large, but it is no  
 small matter for it to be recorded that, of those treated, no  
 less than 17.0 per cent. of the male cases and 30.0 per cent. of the  
 female cases have been discharged as cured, that as many  
 males and double the number of females have been discharged  
 as relieved, and that these two groups of cases represent fully  
 48.0 per cent. of the total treated. The admirable example of  
 the Guardians of the Kettering Union appears to me to have  
 been already justified, and I cannot but hope that these primary  
 figures will be so strengthened in the future as to induce other

Boards of Guardians in the County to make similar provision for the treatment of their phthisical patients.

The Phthisis death-rate varied in the Urban Districts from 0.28 per 1,000 of the population in the Rushden District to 0.85 per 1,000 of the population in the Irthlingborough District. In the Rural Districts the variation in this mortality was from 0.0 per 1,000 of the population in the Crick and Easton-on-the-Hill Districts to 1.98 per 1,000 of the population in the Gretton District.

Arranged in the order of their Phthisis death-rates, the Urban Districts stand thus:—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Rushden .. ..	0.28	Rothwell .. ..	0.78
Raunds .. ..	0.45	Daventry Borough ..	0.79
Higham Ferrers Borough	0.71	Brackley Borough ..	0.81
Finedon .. ..	0.71	Oundle .. ..	0.83
Kettering .. ..	0.74	Wellingborough ..	0.83
Desborough .. ..	0.76	Irthlingborough ..	0.85

The position of the Rural Districts in respect of their Phthisis death rates is as follows:—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Crick .. ..	0.0	Northampton .. ..	0.93
Easton-on-the-Hill ..	0.0	Oxendon .. ..	0.95
Brackley .. ..	0.41	Towcester .. ..	0.97
Oundle .. ..	0.47	Kettering .. ..	1.01
Thrapston .. ..	0.49	Brixworth .. ..	1.09
Wellingborough ..	0.66	Potterspury .. ..	1.16
Daventry .. ..	0.67	Hardingstone .. ..	1.40
Middleton Cheney ..	0.83	Gretton .. ..	1.98

The Gretton Rural District, which has the highest Phthisis

death-rate of any District in the County for the year 1905, was the only one for the year 1904 which had no mortality from this disease.

**Respiratory Diseases Mortality.**—There was a slight decrease in this mortality as compared with the two preceding years, although the rate was not quite so low as for the year 1901. On the whole, however, there is a sensible decline in the average mortality from respiratory diseases in the five-year period 1901—1905, as compared with the preceding five-year period, the rate being 1.71 as against 2.19 per 1,000 of the population. The total number of deaths from respiratory diseases registered in the Administrative County during the year 1905 was 354—the same number as in 1904, and five less than in 1903. Of these, 158 occurred in the Combined Urban Districts, and 196 in the Combined Rural Districts, after allocating to their respective Districts five deaths which occurred in Berry Wood Asylum. Of the total deaths from Bronchitis, Pneumonia, and Pleurisy, 162, or 45.76 per cent. were of children under five years of age; of these, 79, or 48.77 per cent. were in the Combined Urban Districts, and 83, or 51.23 per cent. were in the Combined Rural Districts.

The following table shows the number of deaths from the respiratory diseases and the rate per 1,000 of the population for the whole Administrative County for the ten years 1896—1905 :—

Area.	Respiratory Diseases	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
Adminis- trative County ..	No. of Deaths	380	497	432	467	450	337	415	359	354	354
	Rate per 1,000 ..	1.91	2.48	2.13	2.29	2.18	1.62	1.97	1.68	1.65	1.63

The death-rate for Respiratory Diseases varied in the Urban Districts from 0.28 per 1,000 of the population in the Rushden District, to 2.38 per 1,000 of the population in Daventry Borough. In the Rural Districts, the variation in this mortality was from 0.66 per 1,000 of population in the Gretton District, to 2.52 per 1,000 of population in the Towcester District.

Arranged in order of their death-rates for Respiratory Diseases, the Urban Districts stand thus.

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Rushden .. ..	0.28	Wellingborough .. ..	1.75
Raunds .. ..	1.14	Rothwell .. ..	1.76
Finedon .. ..	1.18	Desborough .. ..	1.78
Irthlingborough .. ..	1.28	Kettering .. ..	2.03
Brackley Borough .. ..	1.62	Higham Ferrers Borough	2.14
Oundle .. ..	1.66	Daventry Borough .. ..	2.38

The position of the Rural Districts in respect of their death-rates for Respiratory Diseases is as follows :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Gretton .. ..	0.66	Oundle .. ..	1.58
Middleton Cheney .. ..	0.83	Oxendon .. ..	1.66
Hardingstone .. ..	1.14	Northampton .. ..	1.68
Brackley .. ..	1.25	Wellingborough .. ..	1.91
Crick .. ..	1.31	Easton-on-the-Hill .. ..	2.05
Brixworth .. ..	1.35	Potterspury .. ..	2.13
Kettering .. ..	1.49	Thrapston .. ..	2.38
Daventry .. ..	1.56	Towcester .. ..	2.52

**General Zymotic Mortality.**—With regard to the rate of general zymotic mortality, this in itself is not unsatisfactory. It stands for the year 1905 at 0.90 per 1,000 of the population, a slightly less rate than for the year 1904, but higher than for the two years preceding. For the five years 1896—1900

the average rate was 1.37 per 1,000 of the population, for the succeeding five years it is 0.85; the average rate has fallen therefore 0.52 per 1,000 of the population, which is a very satisfactory reduction in mortality. This general zymotic mortality is inclusive of deaths from Measles, Whooping-Cough, and Diarrhœa, which are not notifiable diseases, but does not include Simple Croup, Enteritis, or Epidemic Influenza. The total number of deaths from the grouped zymotic diseases during the year 1905 amounted to 195, of which 125 belonged to the Combined Urban Districts and 70 to the Combined Rural Districts. The feature of the zymotic mortality, however, which is not so satisfactory is that which relates to the notifiable diseases. The total number of notified cases is higher than it has been since universal notification came into operation in the year 1900; this was due to exceptional prevalence of scarlet fever, which far out-balanced the advantage derived from record diminutions in diphtheria and enteric fever prevalences. The mortality rate from the notifiable diseases for the year 1905 amounted to 0.40 per 1,000 of the population, as against 0.38 per 1,000 in 1904, 0.26 per 1,000 in 1903, 0.27 per 1,000 in 1902, 0.36 per 1,000 in 1901, and 0.41 per 1,000 in 1900. The rate for 1905 was thus 0.07 above the average for the preceding five years, and this is due to the increased mortality from scarlet fever. The total number of cases notified was 1,866, as against 1,598 cases in 1904, and 913 cases in 1903, which is at the rate of 8.64 cases per 1,000 of the population; of these cases, 88 were fatal.

Of the total deaths from the zymotic diseases, 131 were of children under five years of age, or at the rate of 67.1 per cent; of these, 84, or 64.12 per cent. were in the Combined Urban Districts, and 47, or 35.88 per cent. were in the Combined Rural Districts.

The following table shows the number of deaths from the general zymotic diseases, and the rate per 1,000 of the

population for the whole Administrative County, for the ten years 1896—1905 :—

Area	General Zymotic Diseases	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905
	No. of Deaths	331	288	293	255	217	187	162	154	203	195
Adminis- trative County ..	Rate per 1,000 ..	1.66	1.43	1.45	1.25	1.05	0.90	0.77	0.72	0.94	0.90

The general zymotic death-rate varied in the Urban Districts from 0.0 per 1,000 of population in the Boroughs of Daventry and Higham Ferrers and the Oundle District, to 3.64 per 1,000 of population in the Irthlingborough District.

In the Rural Districts the variation in this mortality was from 0.0 per 1,000 of population in the Crick, Easton-on-the-Hill, Gretton, and Middleton Cheney Districts, to 1.49 per 1,000 of population in the Northampton District.

Arranged in order of their death-rates for Zymotic Diseases the Urban Districts stand thus :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Daventry Borough ..	0.0	Desborough ..	1.27
Higham Ferrers Borough	0.0	Brackley Borough ..	1.62
Oundle .. ..	0.0	Rushden .. ..	1.63
Raunds .. ..	0.45	Rothwell .. ..	2.35
Wellingborough ..	0.73	Finedon .. ..	2.61
Kettering .. ..	1.16	Irthlingborough ..	3.64

The position of the Rural Districts in respect of their death-rates for Zymotic Diseases is as follows :—

	<i>Per 1,000 of Population.</i>		<i>Per 1,000 of Population.</i>
Crick .. ..	0.0	Hardingstone .. ..	0.50
Easton-on-the-Hill .. ..	0.0	Daventry .. ..	0.52
Gretton .. ..	0.0	Brackley .. ..	0.55
Middleton Cheney .. ..	0.0	Wellingborough .. ..	0.73
Brixworth .. ..	0.16	Kettering .. ..	1.09
Potterspury .. ..	0.19	Oundle .. ..	1.10
Towcester .. ..	0.29	Oxendon .. ..	1.18
Thrapston .. ..	0.49	Northampton .. ..	1.49

#### SPECIAL ZYMOTIC DISEASES AND MORTALITY.

**Small Pox.**—The County was not entirely free from invasions of small-pox during 1905, since cases occurred both at Kettering, and at Old Stratford in the Potterspury Rural District. The cases that occurred, however, recovered, so that there was no mortality from the disease. The readiness of the Kettering Urban District to deal with such an invasion as took place was excellently shown, while the unreadiness of the Potterspury Rural District was only relieved by the fortunate circumstance that, as its small-pox hospital was in use at the time, the Borough of Northampton was able to accommodate the patient. I desire to record my thanks to the Medical Officer of Health for the Borough for the consideration which he gave to this case when I approached him on an appeal from the Medical Officer of Health for the Potterspury Rural District for the isolation of the case.

The following extracts from the Reports give particulars of the cases, and references to the subject of isolation of small-pox patients :—

KETTERING URBAN.—“ The only case of Small Pox which  
“ has occurred was discovered in the Tramp Ward of the Union  
“ in June. Special care has always been taken in examining  
“ tramps desiring admission, and the official in charge noticed

“ one of them with a rash on this occasion. Medical advice  
 “ was immediately sought, and a severe case of Small Pox,  
 “ just beginning, was the verdict. In a very short time this  
 “ man was safely isolated in the Small Pox Hospital, and before  
 “ midnight the man and woman who are always ready to take  
 “ charge of Small Pox cases were in residence with him, with  
 “ a supply of suitable provisions and every means of complete  
 “ isolation. This patient was not a regular tramp, but turned  
 “ out to be a respectable bricklayer in search of work. He had  
 “ a very severe attack of Confluent Small Pox, and after his  
 “ complete recovery and disinfection found employment in  
 “ helping to build an infectious Hospital elsewhere. The Tramp  
 “ Wards were most thoroughly disinfected, and the clothes  
 “ of the man burnt. This is the second occasion within a short  
 “ space of time when an outbreak of Small Pox has been  
 “ prevented by *immediate* action, this being really the only  
 “ method of nipping an outbreak in the bud. The steps taken  
 “ may appear to be somewhat expensive, and of course the  
 “ keeping a building, with caretakers to go in at a moment's  
 “ notice, always ready, which you have provided, and without  
 “ which no such useful and speedy action could be taken,  
 “ costs money ; but on these occasions has certainly been the  
 “ means of *saving* a large sum of money compared with the  
 “ cost to some places where no such provision has been made.  
 “ The delay of even a day makes all the difference.”

KETTERING RURAL.—“ No case of Small Pox has occurred  
 “ during the past year in this district, but everything has been  
 “ kept in readiness for immediate isolation in case of necessity.”

POTTERSPURY RURAL.—“ An outbreak of Small Pox took  
 “ place in June at the common lodging-house, Old Stratford,  
 “ and confined to two persons, namely, William Hook and  
 “ Caroline Allen. The former was removed to the Small  
 “ Pox Hospital at Northampton, but the characteristic symp-  
 “ toms of the disease did not develop in Caroline Allen until

“ two days after she had left the lodging-house and had arrived  
 “ at Leighton Buzzard. Both had lodged at Old Stratford  
 “ for some weeks, and the infection was probably from the  
 “ same source, namely, possibly an unknown mild case which  
 “ may have passed through the lodging-house about a fortnight  
 “ previously. No other case has been reported in connection with  
 “ this outbreak. I may add that the District had been free from  
 “ Small Pox since 1882, and that renewed efforts are being  
 “ made to provide efficient isolation accommodation for such  
 “ cases in future.”

TOWCESTER RURAL.—“ I am glad to report again an im-  
 “ munity from Small Pox, though a case at Old Stratford  
 “ in the Potterspury Rural District occasioned some disquietude  
 “ in June. . . . The Tents provided in 1902 in case of an  
 “ attack of Small Pox are still in readiness should occasion  
 “ arise for their use.”

**Scarlet Fever.**—Enormous as was the increase of scarlet fever prevalence in the County during the year 1904, it was even largely exceeded during 1905. In the former year there was a total of 1,127 cases, as against 495 in 1903, 602 in 1902, 570 in 1901, and 816 in 1900. In 1905, however, there were 1,475 cases, 838 of which occurred in the Combined Urban Districts, and 637 in the Combined Rural Districts. These figures plainly show that the prevalence of this disease was greater during 1905 than in any year since the notification of infectious diseases became compulsory. The disease appears to have been very generally of a mild type, with occasional cases of a severe or virulent character ; but it is to the general mildness of the disease that much of its spread is attributed by more than one Medical Officer of Health, for many cases appeared to escape early recognition, and in some places parents showed gross carelessness in the matter of isolation of their sick children. In consequence of the local prevalence of scarlet fever the schools in twenty parishes were closed, including such

large Urban ones as Finedon and Irthlingborough, but there may have been other instances which were not notified to me. In regard to the distribution of the disease, among the Urban Districts, Rushden had 276 cases, Kettering 146, Rothwell 129, Irthlingborough 86, and Finedon 83, while in the Rural Districts, Wellingborough contributed 140, Thrapston 92, Daventry 84, Northampton 69, and Brixworth and Towcester each 49. The total scarlet fever prevalence was equal to a sickness-rate of 0.68 per cent. of the total estimated population of the County, as against a like rate of 0.52 per cent. in 1904, and 0.23 per cent. in 1903. The incidence of the disease, therefore, was nearly three times as great in 1905 as it was in 1903. In the Combined Urban Districts the rate was 0.84 per cent. as against 0.55 in 1904, and 0.21 per cent. in 1903, while in the Combined Rural Districts it was 0.54 per cent. as against 0.50 in 1904, and 0.25 per cent. in 1903. From this it is plain that the proportion of incidence has been increasingly on the Urban rather than on the Rural population. The total number of deaths from scarlet fever in the Administrative County during 1905 was 40, or 2.70 per cent. of the cases, as against 2.57 per cent. in 1904, 3.03 per cent. in 1903, 1.82 per cent. in 1902, 1.57 per cent. in 1901, and 1.96 per cent. in 1900. Of these deaths, 20, or 50.0 per cent. were of children under five years of age, as against 51.7 per cent. in 1904. There were only two Districts in the County which did not have cases of the disease during the year, namely, the Crick and Gretton Rural Districts. In 1904 only the Borough of Daventry and the Crick Rural District escaped, and in 1903 the Easton-on-the Hill and Gretton Rural Districts were similarly fortunate. The disease was distributed, therefore, very generally throughout the County during the past three years, and, judging from the monthly returns received for the current year, it is to be hoped that the maximum of prevalence was reached in 1905.

The following extracts from the Reports of the District Medical Officers of Health are illustrative of the foregoing facts:—

BRACKLEY BOROUGH.—“Scarlet-fever appears to be  
“endemic in the district.”

DAVENTRY BOROUGH.—“Of the three cases, one occurred  
“in January, one in June, and one in August, and in no instance  
“did the disease spread. The infection in every case was  
“clearly traceable to an outside source. All of them recovered.”

HIGHAM FERRERS BOROUGH.—“The cases of scarlet-  
“fever occurred in March, May and October, as separate out-  
“breaks, apparently from fresh sources of infection. Isola-  
“tion, as far as it could be carried out, was insisted upon  
“for not less than eight weeks in every case, and I believe  
“it was due to this prolonged segregation that each out-  
“break was kept within such moderate limits.”

DESBOROUGH URBAN.—“Cases of Scarlet Fever, which  
“disease occurred more or less throughout the previous year,  
“increased in numbers during the months of January and  
“February, and resulted in a total of thirty cases being notified  
“during the twelve months. Over that period they were  
“distributed as follows:—In January 12 cases, in February  
“14 cases, In March 2 cases, in July 1 case, in September  
“1 case. Happily there is no death to record as due to Scarlet  
“Fever, the majority of the cases being of a very mild type.  
“All due precautions were taken to combat this very infectious  
“disease. Special attention was given to the schools and  
“school children so as to prevent any extension of the disease  
“through those sources. Opportunity was taken at the end  
“of the week to have the several classrooms disinfected in  
“rotation. Doubtless all these measures were in some degree  
“effective in controlling and subduing the disease.”

FINEDON URBAN.—“Scarlet Fever was prevalent, more  
“or less, throughout the year. Owing to the number of cases  
“occurring in October, I advised the Sanitary Authority to

“ close the schools for a time. They did this, and the spread  
 “ of the disease was markedly stayed. The carelessness shown  
 “ by some of the parents during this epidemic made the work  
 “ of the Sanitary Authority most difficult and discouraging.  
 “ Disinfectants were freely distributed, and the infected houses,  
 “ as far as possible, were disinfected on the recovery of the  
 “ patients. Eighty-three cases of the disease were reported,  
 “ several of a very virulent type. Four deaths resulted from  
 “ the disease.”

IRTHLINGBOROUGH URBAN.—“ This disease, which appeared  
 “ in epidemic form in September, 1904, continued prevalent  
 “ throughout the whole of 1905. 86 cases were notified, but  
 “ only one death resulted—Pneumonia being the immediate  
 “ cause of death. During the last few months, the infection  
 “ appeared to become very attenuated, as the cases were ex-  
 “ ceedingly mild, and in all probability a good many were not  
 “ recognised by the parents, and the children suffering from  
 “ it in this mild form may have conveyed it to school, and so  
 “ kept the epidemic alive. The usual precautions were taken  
 “ in all cases that came under observation.”

KETTERING URBAN.—“ Scarlet Fever has been present  
 “ in the town during the whole year. 146 cases have been  
 “ notified, 117 of which were removed to the Hospital. Most  
 “ of the cases were of a mild character, but a few were of the  
 “ malignant type. Of the 146 cases notified, 143 recovered,  
 “ and 3 proved fatal. The number of cases gradually diminished  
 “ towards the latter part of the year.”

OUNDLIE URBAN.—“ The cases of Scarlet Fever were intro-  
 “ duced into the town in summer from a case at Thrapston.  
 “ There was a slight spread of the disease which was of a very  
 “ mild character.”

RAUNDS URBAN.—“ The scarlet fever cases were scattered  
 “ over the whole year, and with the exception of one case

“ were of a very mild type. In 7 or 8 instances the infection  
 “ was distinctly traceable to outside sources. That means  
 “ that we had during the year at least 7 or 8 fresh centres of  
 “ infection brought from other towns, and yet in no case was  
 “ there any further outbreak from any one of these centres—  
 “ so well did the people in each particular house carry out  
 “ our instructions as regards isolation, and also on account  
 “ of the thorough disinfection of each house affected—so that  
 “ not a single case was sent to the isolation hospital, and yet  
 “ we were successful in preventing an epidemic from any  
 “ one case.”

ROTHWELL URBAN.—“ During the year we have had a  
 “ pretty extensive epidemic of Scarlet Fever, no fewer than 129  
 “ cases being reported. These occurred during the following  
 “ months : January 11, February 10, March 5, April 7, May 6,  
 “ June 4, July 6, August 25, September 15, October 14, Novem-  
 “ ber 18, December 8. From the above it will be seen that at  
 “ no period of the year were we quite free from the disease,  
 “ but that during the months of August, September, October  
 “ and November most of the cases were notified. On the whole  
 “ the epidemic was of a very mild type, as is shown by the fact  
 “ that out of 129 cases there were only 7 deaths, and at no  
 “ time during the year was the spread of the disease at all serious.  
 “ In the month of August when 25 cases were notified, it was  
 “ confined to a few houses, three of them accounting for 12  
 “ cases. It was not possible to trace the cause of the epidemic  
 “ with any certainty, it was probably imported in the first  
 “ instance. In every case the strictest precautions were taken,  
 “ and everything that was possible was done to prevent the  
 “ spread of the disease, but in one or two instances very mild  
 “ cases were never seen till they had reached the peeling stage,  
 “ and it was only discovered that they had been affected by  
 “ other members of the family contracting the disease.”

RUSHDEN URBAN.—“ Scarlet Fever has been very pre-  
 “ valent, but generally of a mild type.”

WELLINGBOROUGH URBAN.—“ Of the 18 cases of Scarlet  
 “ Fever, six were imported, five arose from direct infection,  
 “ one probably from defective drainage, since remedied,  
 “ and in the remainder the source of infection was untraceable.”

BRACKLEY RURAL.—“ There were only 3 cases of Scarlet  
 “ Fever, and these were all original cases, and no extension  
 “ occurred.”

BRIXWORTH RURAL.—“ 49 cases were notified during the  
 “ year, as against 101 in 1904, and 78 in 1903 ; of the 49 cases,  
 “ Moulton was responsible for 16, Guilsborough for 7, Naseby  
 “ and Walgrave for 6 each. Moulton was affected early in the  
 “ year from the end of the Northampton epidemic. The small  
 “ number of cases recorded in comparison with the previous  
 “ two years is, I think, due to the fact that the Northampton  
 “ epidemic has gradually burnt itself out. The disease has  
 “ been of a mild type throughout the year, and there have been  
 “ no deaths. In very few of the houses in which the disease  
 “ appeared could any sanitary defect be found, but almost  
 “ always evidence of contagion from other cases. The one  
 “ notable exception was at Guilsborough, where the drains  
 “ in the first house affected were found to be in a very bad  
 “ condition. The Schools of Moulton, Guilsborough, and Wal-  
 “ grave were closed for disinfection.”

DAVENTRY RURAL.—“ Scarlet Fever occurred in 12 Parishes,  
 “ the largest outbreak being in Weedon, where 41 cases were  
 “ reported ; there were 11 cases notified from Stowe-nine-  
 “ Churches, 6 cases from both Helidon and Everdon, 4 cases  
 “ in both Dodford and Woodford-cum-Membris, 3 cases in  
 “ Catesby, Farthingstone, and Whilton, and single cases in  
 “ Long Buckby, Charwelton and West Haddon. All these  
 “ cases were very mild, and no fatal case occurred ; but at  
 “ the same time I do think parents should take more care in  
 “ keeping the cases isolated, and especially in doubtful cases

“ calling in a medical man. I would strongly urge that, if  
 “ a case of wilful exposure in a public place comes under notice,  
 “ steps be at once taken to obtain a conviction ; this will do  
 “ more good to enforce care than any amount of talking.”

EASTON-ON-THE-HILL RURAL.—“ There have been 5  
 “ cases of Scarlet Fever, 4 occurring at Duddington, and 1  
 “ at Collyweston.”

HARDINGSTONE RURAL.—Referring to infectious diseases  
 and the amount of their prevalence, “ out of this total, 39 cases  
 “ were due to scarlet-fever, which number, though large, is  
 “ only about half that of the previous year, when 71 cases were  
 “ notified. It shows a falling off in the epidemic which pre-  
 “ vailed so generally in the Borough of Northampton and in  
 “ this district during 1904. As I pointed out last year, the  
 “ communication between our district and the Borough is  
 “ so frequent that, when such an epidemic prevails in the town,  
 “ it is sure to be brought into this district, and this accounts  
 “ for the beginning of the malady in most of our villages. By  
 “ removing, whenever possible, the earliest case into our Hos-  
 “ pital, we have been able, I think, to considerably limit the  
 “ spread of this disease. Most of the cases occurred in the  
 “ villages of Little Houghton, Milton, and Piddington, which  
 “ accounts for 26 cases, and the rest were spread in small num-  
 “ bers over the rest of the district. . . . There were three  
 “ fatal cases of scarlet-fever during the year. Two of these  
 “ occurred in children of one family at Brafield ; their parents  
 “ refused to allow their removal to the Hospital, and as the cot-  
 “ tage was fairly well isolated their removal was not insisted  
 “ upon. The other occurred in a young man removed from  
 “ Delapré to the Hospital ; he was suffering at the time from  
 “ severe heart disease, and this was really the cause of his  
 “ death, of course, aggravated by the attack of scarlet fever.”

NORTHAMPTON RURAL.—In speaking of the whole number

of cases of infectious sickness, “ the large total in the last two  
“ years is almost entirely due to the number of scarlet-fever  
“ cases that have occurred in this district during these years—  
“ 83 in 1904 and 69 in 1905. There can be no doubt that  
“ scarlet-fever is more prevalent in this district than formerly,  
“ and I attribute it to the fact that scarlet-fever has also been  
“ very prevalent in the town of Northampton, and it is carried  
“ into our district by the free inter-communication that  
“ exists with the town. Thus, of the 22 cases in the Kisling-  
“ bury sub-district most of them occurred in the village of  
“ Harpole, which is a large shoe-making village with persons  
“ continually passing backwards and forwards to and from  
“ Northampton. Duston again is close to the town, and  
“ many cases of scarlet-fever there I could trace in all probability  
“ to children going to school in the town, at St. James’ End  
“ Schools. I do not understand why children should undergo  
“ this risk when there is a large school in the village of Duston.  
“ It must not be forgotten, though, that 23 of these cases of  
“ scarlet-fever this year broke out at Berry Wood Asylum,  
“ so that if we deduct these there is a total of only 46 cases  
“ in the district proper, or only about half the number that  
“ occurred in 1904; at Berry Wood, again, the disease was  
“ introduced by visitors from the town. In the Weston  
“ Favell district the disease was limited to two families, one  
“ large one at Weston Favell and another at Great Billing.  
“ In the latter case an endeavour was made to check the disease  
“ by removing the first case to the Hardingston Infectious  
“ Hospital, but it was unsuccessful, as several children in this  
“ family afterwards fell with it, but fortunately it did not  
“ spread to the rest of the village. Five of these scarlet-fever  
“ cases were this year removed to the Hospital—three to the  
“ Hardingstone Infectious Hospital and two to the Borough  
“ Hospital as we have at present no isolation hospital of our  
“ own. Other means taken to check the disease have been  
“ by distributing handbills containing advice to the people

“ as to the means to be taken to check the spread of the disease,  
 “ and by freely disinfecting and distributing disinfectants.”

OUNCLE RURAL.—At Barnwell, “ in September a case  
 “ of Scarlatina was introduced from outside the District.  
 “ The infection spread in the village, and though there was  
 “ no regular epidemic still there were dropping cases, six in  
 “ all, to the end of the year. Three of these were removed  
 “ to the Hospital. . . . One case of imported Scarlatina  
 “ was seen at Nassington, which was removed to Hospital.  
 “ I think we have at last got rid of the disease from this village.”

OXENDON RURAL.—“ The forty-one cases of Scarlet Fever  
 “ occurred in seven Parishes, including eight at Wilbarston,  
 “ eleven at Clipston and eighteen at Stoke Albany. The out-  
 “ break at Clipston was during the early part of the year,  
 “ and was not discovered until several cases had occurred.  
 “ I made a special investigation into the source and conditions  
 “ of the outbreak, and was fortunately able to trace the extent.  
 “ It had apparently been introduced by strangers, and not  
 “ due to local insanitary conditions. The schools were closed  
 “ temporarily, and no extension arose. With regard to the  
 “ outbreak at Stoke and Wilbarston, which adjoin, it was very  
 “ difficult to trace the cases and to obtain the necessary infor-  
 “ mation, as very great reluctance was exhibited by some of  
 “ the people to afford the required information; however,  
 “ by frequent inspections and visits, I was enabled to find and  
 “ deal with the cases. It was most difficult to ensure adequate  
 “ isolation, and the cottage accommodation in many of the  
 “ cases was most deficient, and there was considerable trouble  
 “ in preventing exposure of infected persons. There is no  
 “ doubt that the spread of the complaint was from mild unde-  
 “ tected cases, and it was found necessary to close the Schools  
 “ for a considerable period. Under the circumstances it was  
 “ fortunate that the outbreak did not exceed the numbers  
 “ notified. All the premises were disinfecting under considerable

“ difficulty, there being nowhere to dispose of the residents  
 “ during the process. I would suggest, in any future condition  
 “ of a similar proportion and difficulty, that the Council take  
 “ steps to acquire some premises, locally, to relieve the con-  
 “ gested state; the cost would not be great, and many would  
 “ willingly pay for the relief.”

POTTERSPURY RURAL.—“ Sixteen cases of Scarlet-fever  
 “ against thirty-one the previous year, were notified, all  
 “ apparently of the usual mild type, unattended by mortality,  
 “ and generally spread by unrecognised cases imported into  
 “ the district. They do not call for any special comment.”

THRAPSTON RURAL.—“ At the close of 1904 there were  
 “ 3 or 4 cases of Scarlatina in Thrapston. The disease unfor-  
 “ tunately spread, mainly among children attending school.  
 “ During the early months of the year a considerable number  
 “ were reported but happily there were no deaths. The  
 “ schools had to be closed, and the work was seriously inter-  
 “ fered with.” The village of Hargrave was also visited with  
 an epidemic of this disease, and cases occurred at Little  
 Addington and Ringstead.

TOWCESTER RURAL.—In regard to the notified cases,  
 “ Scarlet Fever contributes 49, or 79 per cent. These occurred  
 “ almost entirely in first six months of the year, there having  
 “ been only four cases since June. This number, though large,  
 “ is not unduly so, as scarlet-fever during these months was  
 “ extremely prevalent throughout the country.”

WELLINGBOROUGH RURAL.—“ 140 cases have been notified  
 “ —16 in the Earls Barton district and 124 in the Higham  
 “ Ferrers district—with four deaths. In October an outbreak  
 “ of scarlet-fever occurred at Irchester. Fifteen cases were  
 “ reported between October 21 and November 15, when the  
 “ schools were closed by order of the County Council, contrary

“ to my advice, and the teachers sent direct to other schools,  
 “ thereby running the risk of carrying the infection with them.  
 “ Out of the 15 cases, 10 only were of an age to attend school.”

**Diphtheria and Membranous Croup.**—The statistics with regard to the prevalence of diphtheria in this County are beginning to have the appearance of indicating improving sanitary conditions, and I hope that subsequent records will justify this impression. It is a disease which so often makes its appearance in a village or locality in such an insidious manner that it is often hard to say at what period the neglected insanitary conditions which appear to have been the operating causes for its production had reached their stage of potency for special evil. The continuous effort to remove insanitary conditions, therefore, is strongly indicated in order to reduce the prevalence of this disease. I am hopeful that increased activity in regard to this matter is responsible for the lessened prevalence of the last few years, and it is at least gratifying to be able to report that the number of cases for 1905 is the lowest for the past ten years. The total number of cases reported was 67, and the total number of deaths from the disease was 14, which is also the lowest number for the last ten years. In the year 1904 there were 77 cases with 19 deaths, in 1903, 85 cases and 17 deaths, in 1902, 105 cases and 20 deaths, in 1901, 122 cases and 39 deaths, in 1900, 172 cases and 38 deaths, in 1899, 119 cases and 28 deaths, in 1898, 125 cases and 39 deaths, in 1897, 99 cases and 27 deaths, and in 1896, 101 cases and 21 deaths. The reduction for the year 1905, therefore, is substantial. In the year 1905 the case incidence on the urban population was at the rate of 0.36 per 1,000 of the population, as against 0.24 per 1,000 in 1904, and on the rural population it was 0.26 per 1,000 of the population, as against 0.45 per 1,000 in 1904. In the combined Urban Districts during 1905 there were 36 cases with 8 deaths, and in the combined Rural Districts there were 31 cases with 6 deaths. These mortalities give a death-rate of 22.22 per cent. of the cases in the combined Urban Dis-

tricts, as against 33.3 per cent. in 1904, of 19.35 per cent. in the combined Rural Districts, as against 20.3 per cent. in 1904, and of 20.89 per cent. in the Administrative County, as against 24.6 per cent. in 1904. No cases of Diphtheria or Membranous Croup were notified in the Brackley and Higham Ferrers Boroughs, or in the Finedon, Oundle, and Rothwell Urban Districts, or the Brackley, Crick, Easton-on-the-Hill, and Oxendon Rural Districts.

The following are the principal references in the Annual Reports of the District Medical Officers of Health in regard to this disease prevalence :—

DAVENTRY BOROUGH.—“ The solitary case of this disease  
“ was the occupant of a van staying for a time in a small field  
“ as the bottom of Chapel-lane. The child recovered.”

DESBOROUGH URBAN.—“ Two cases of Diphtheria were  
“ notified, one in February and the other in May, both in children  
“ between the ages of 5 and 15. Unhappily one of the two cases  
“ proved fatal. Careful inspections of the premises where  
“ these cases occurred were made by your officers, but nothing  
“ was discovered to account for the outbreak, nor could any  
“ connection between the two cases be traced. In each case  
“ strict isolation and disinfection were enjoined upon those  
“ having charge of the sick, and attention was given to the  
“ flushing of the house-drains.”

KETTERING URBAN.—“ Diphtheria is a disease which has  
“ not been very prevalent in Kettering, but more cases than  
“ usual were notified last year. In all there were 14 cases, 5 of  
“ which were removed to Hospital. There was no apparent  
“ common cause or connection between any of these cases ;  
“ none proved fatal.”

WELLINGBOROUGH URBAN.—“ There were six cases of  
“ Diphtheria notified, two in April, one in June, two in July,

“ one in November. Two were probably due to imperfect  
 “ sanitary conditions, one from alteration of drainage system,  
 “ and in the three other cases nothing could be ascertained  
 “ regarding the origin of infection. ”

BRIXWORTH RURAL.—“ 7 cases were notified, as against  
 “ 14 for 1904, 34 for 1903, and 25 for 1902. Two cases occurred  
 “ in January in one yard at Hannington, which was found to  
 “ be in a very insanitary condition. The privy was large, old,  
 “ close to and above the line of the dwelling rooms. The  
 “ analysis of the water showed it to be unfit for drinking.  
 “ The privy was filled up, and three closets were made at the  
 “ back of the garden with covered in ashpits. The well was  
 “ closed up. Two more cases were reported from Holdenby  
 “ in February. By the advice of the County Medical Officer, I  
 “ inspected the children’s throats every fortnight, and kept  
 “ any with suspicious signs away from school until they were  
 “ well ; this, and frequent attention to flushing, I am glad to  
 “ say, has kept the village free since then. One case was  
 “ reported in Walgrave, probably due to the house drains  
 “ going down hill to the main sewer and having no disconnecting  
 “ chamber. One is to be put in immediately by direction of  
 “ the Board. In December two cases occurred in Spratton,  
 “ in new houses where I could find no sanitary defect. They  
 “ were strictly isolated, and there was no spread of the disease.”

DAVENTRY RURAL.—“ The two cases of Diphtheria were  
 “ reported from Long Buckby and Stowe-nine-Churches ;  
 “ the Long Buckby case proved fatal, but it was complicated  
 “ with Whooping Cough.”

GRETTON RURAL.—“ A mild case of Diphtheria was re-  
 “ ported in Harringworth in the month of March. The disease  
 “ was contracted in Leicester.”

HARDINGSTONE RURAL.—“ After eliminating the cases of

“ scarlet fever, there were only 2 cases of other serious disease  
 “ notified during the year, which is a very good record. These  
 “ were both cases of membranous croup, and both occurred in  
 “ the railway cottages at Roade. As the water supply to these  
 “ cottages was known to be impure, notice was served on the  
 “ Railway Company, to whom they belong, to provide them  
 “ with a better supply, as the Company have a very good and  
 “ pure supply at their station close at hand. The Railway  
 “ Company objected, however, to this, and, on appealing to  
 “ the Council, they allowed the appeal on condition that the  
 “ cottages should have the use of the water by fetching it from  
 “ the station. I think this is an unwise decision, as cases of  
 “ infectious disease are constantly occurring at these cottages,  
 “ and starting an epidemic in this village. Unfortunately,  
 “ one of these cases proved fatal. ”

KETTERING RURAL.—“ After the thorough investigation  
 “ of the village, and the careful watching of the school children  
 “ at Pytchley, owing to the outbreak of Diphtheria at that  
 “ village in 1904, no further case has occurred, and only two  
 “ cases of this illness have been notified during 1905 in the  
 “ district. Both of these cases occurred in Geddington, were  
 “ slight, and both recovered. One of them was removed to  
 “ the Hospital.”

NORTHAMPTON RURAL.—“ Two cases of diphtheria were  
 “ notified. One was in a child living in one of two isolated  
 “ cottages on the road from Weston Favell to Buttock’s Booth,  
 “ there were a large number of children also living in the house  
 “ but none of them contracted the disease. A drain was not  
 “ in very good order, and instructions were given to rectify it,  
 “ but it is difficult to understand why this should cause diph-  
 “ theria in one child and not in any of the others who were all  
 “ living under the same conditions. Similarly the water supply  
 “ and milk supply were the same to all the occupants of these  
 “ two cottages, and yet only one contracted the disease. The

“ other case of diphtheria was notified from Bugbrooke. Here  
 “ an old farmyard existed, the drainage of which was not first-  
 “ class, and the water supply was considered impure, and on  
 “ analysis was classed as ‘ suspicious, probably from washing-up  
 “ water entering the well.’ The drainage of the yard was  
 “ ordered to be attended to, and no more cases were notified ;  
 “ unfortunately, however, this case proved fatal.”

OUNCLE RURAL.—“ On October 16th two notifications of  
 “ Diphtheria were sent to me relating to Hemington. On  
 “ going up there next morning, I found that one of the children  
 “ was dead and the other dying. The outbreak seemed very  
 “ serious. The Schools were therefore at once closed, and  
 “ everything I think was done that was possible to prevent  
 “ the infection spreading. A special report upon the outbreak  
 “ was submitted to you, copies of which were sent to the Local  
 “ Government Board and to the County Council. It will  
 “ therefore be unnecessary to give a detailed account of the  
 “ epidemic now ; it was entirely confined to three families,  
 “ two are nearly related, and two of which lived next door to  
 “ each other and drank water from a cistern, the contents of  
 “ which were simply putrid. Mr. Thring, agent to the Duke  
 “ of Buccleuch who owns the whole village, gave every assis-  
 “ tance, and has effected considerable improvement in the sani-  
 “ tary condition of the place. As there has not been any case  
 “ at Hemington since November, 27th I trust we may consider  
 “ the outbreak at an end.”

POTTERSURY RURAL.—“ One case of Diphtheria was  
 “ notified, and of obscure origin, but there is reason to suspect  
 “ that it was contracted at a day school outside the district.”

TOWCESTER RURAL.—“ One case of Diphtheria was  
 “ notified at Gayton, and one case of Membranous Croup at  
 “ Blisworth.”

WELLINGBOROUGH RURAL.—“ Three cases have been noti-

“fied—one in the Earls Barton district and two in the Higham Ferrers district, with no death.”

**Enteric Fever.**—I am glad to be able to report of enteric fever, as I have already of diphtheria, that the number of cases of this disease was less in 1905 than in any one of the preceding nine years. Enteric fever is so markedly associated with insanitary surroundings that its steady reduction is a fair sign of improving health conditions. The Borough of Daventry, with the Desborough, Raunds, Rothwell and Rushden Urban Districts, and the Crick, Easton-on-the-Hill, Gretton, Hardingsstone, Middleton Cheney and Oundle Rural Districts were all free from this disease, and it is specially to be noticed that the improved conditions as to sewerage and water supply at Desborough and Raunds have had much to do with their singular exemption after many years as large contributors of cases. The total number of cases during 1905 amounted to 64 in the combined Urban Districts, and 26 in the combined Rural Districts, or 90 in all, as against 132 cases in 1904, 102 cases in 1903, 121 cases in 1902, 276 cases in 1901, 144 cases in 1900, 287 cases in 1899, 226 cases in 1898, 143 cases in 1897, and 303 cases in 1896. The number of cases during 1905, therefore, was largely below the average for the preceding nine years. There was indeed only one epidemic of the disease, namely, at Irthlingborough, and this was in my opinion, after examination of all the circumstances on the spot, due to polluted water as recorded by the Medical Officer of Health. The total number of deaths from the disease was 15, as against 19 in 1904. Of these deaths, 10, or 15.62 per cent. of the urban cases occurred in the combined Urban Districts, and 5 deaths, or 19.23 per cent. of the rural cases occurred in the combined Rural Districts. The combined death-rate for the Administrative County was 16.66 per cent. of the total cases, as against 14.4 per cent. in the year 1904.

The following are the principal references to the prevalence

or absence of this disease which are to be found in the Annual Reports of the District Medical Officers of Health :—

HIGHAM FERRERS BOROUGH.—“ The cases of enteric-  
 “ fever occurred in March, as a sudden outbreak, in a block  
 “ of six new houses in Milton street, all of which were supplied  
 “ with water from a well in the yard at the back. A careful  
 “ examination of this well and the drains of the houses at once  
 “ revealed the source of the infection. The main drain, which  
 “ was very near the well, was badly laid, and so defective as  
 “ to allow its contents to escape directly into the well. The  
 “ drains were properly relaid, and the well cleaned out and  
 “ closed, with the effect that no further case occurred.”

DESBOROUGH URBAN.—“ I am in the proud position  
 “ of presenting to you a ‘ clean slate ’ as regards Enteric Fever,  
 “ not a single case having occurred during the past twelve  
 “ months, in fact the period of immunity is decidedly greater for  
 “ the last case notified was in July, 1904. Since this Council was  
 “ constituted an Urban Authority, fourteen years ago, this  
 “ is the only occasion that the annual report has not had  
 “ to chronicle the ravages, more or less, in sickness and mortality  
 “ of Typhoid Fever during the year under review.”

FINEDON URBAN.—“ A single case of Enteric Fever  
 “ occurred in January, the source of the infection not being  
 “ discovered. The patient died. In December, eight cases  
 “ of the same disease occurred in a row of houses situated  
 “ in Kenmure Road. The source of infection was contaminated  
 “ drinking water. All the drains in connection with the  
 “ property had been relaid, and the closets connected with the  
 “ sewer. Some of the sewage matter was emptied on to the  
 “ soil and was washed into the well, the water of which was,  
 “ I believe, previously pure. The landlord promptly removed  
 “ the pump and laid on a supply of water from the mains.

“ These cases are all convalescent now, and I am glad to say  
 “ no death occurred. I apprehend no further outbreak.”

IRTHLINGBOROUGH URBAN.—“ During the year 27 cases  
 “ were notified and 4 deaths resulted, but two children who  
 “ contracted the disease at the end of the previous year died  
 “ in January, making altogether 6 deaths for 1905. Of last  
 “ year’s outbreak, the first case, that of a school boy living with  
 “ his parents in Manton Road, was notified on August 17th,  
 “ but no satisfactory cause could be assigned for his illness.  
 “ The second case, that of a man living in the same street,  
 “ was notified on September 5th, and between that date and  
 “ November 9th, 15 other cases were reported. The outbreak  
 “ seemed to me to point to the Topwell Trough as the common  
 “ source of infection, as, by residence or occupation, all the  
 “ patients had drank that water, and there was no suspicion  
 “ of a common milk or food supply as a possible cause. The  
 “ explanation of the pollution of the Trough water which I  
 “ have already presented to the Council, and one which I  
 “ have no reason to depart from, was as follows :—The first  
 “ case was ill a week before medical aid was sought, and during  
 “ that time the excretions were not disinfected in any way.  
 “ Therefore, either excrement from this case was put down the  
 “ house drains, which run into the storm water drain in Manton  
 “ Street and leaked into the Trough ; or excrement was washed  
 “ by heavy rains (which occurred in the beginning of August) from  
 “ the paths or from about the house drains or closet, through the  
 “ passage, down the gutter, and across the road into the trough ;  
 “ or excrement may have been spilt by the scavengers in empty-  
 “ ing the pail from the closet into the sanitary cart, before the  
 “ disease was recognised, and then washed into the trough.  
 “ After the occurrence of the first few cases, I ordered placards  
 “ to be posted up against the trough, warning people that it  
 “ would be dangerous to use the water for drinking and domestic  
 “ purposes, but, as there was no other source of water supply  
 “ for that district, I am afraid a good many continued to use

" it, and, as a result, other cases occurred. The matter was then  
 " brought prominently forward before a special meeting of the  
 " Farm and Sanitary Committee, and, acting on my advice,  
 " it was decided to close the trough except for farm and street  
 " watering purposes. This was done, and a stand pipe, with  
 " the town supply laid on, erected close by for the temporary  
 " use of those who had previously used the trough water.  
 " From this time no other cases occurred in that district. A  
 " second batch of cases occurred in Jubilee Street in November,  
 " and all of them were notified within a few days of each other.  
 " I attributed this outbreak to the contamination of the well  
 " from which all the patients obtained their water. In my  
 " opinion some of the excretions from a patient (living in this  
 " street and belonging to the first batch of cases) were buried  
 " in the garden and washed into the well, as the result of heavy  
 " rains which occurred about that time. I ordered its imme-  
 " diate closure and no further cases occurred. Of the re-  
 " maining cases, the majority were contact ones, and a few  
 " could not be associated with any of the others, but in each  
 " case the drainage was found in an unsatisfactory state and  
 " the well water polluted."

KETTERING URBAN.—" Only 8 cases of Typhoid Fever  
 " were notified, 7 of which recovered, and 1 proved fatal.  
 " Four of these cases were at once traced to a blocked sewer  
 " in Charles Street, some of the contents of which had tailed  
 " back into a well, the water of which had been used for house-  
 " hold and drinking purposes. One severe case in King Street  
 " had been staying in Charles Street and drinking the same water.  
 " Four cases were treated in Hospital, all of which, although  
 " severe, recovered."

OUNDLE URBAN.—" The case of Typhoid was imported  
 " from abroad, and there has been no spread of the disease."

RUSHDEN URBAN.—" No case has been reported."

WELLINGBOROUGH URBAN.—“ Only 12 cases of Enteric  
 “ Fever were notified, a great decrease from last year. Of  
 “ these, seven arose from direct infection, three from im-  
 “ perfect sanitary conditions in the personal surroundings of  
 “ the patients, one from defective drainage, and for one there  
 “ was no apparent cause. The cases were notified in February,  
 “ March, September, October, and November.”

BRACKLEY RURAL.—“ A single sporadic case of Enteric  
 “ Fever was notified, but the disease did not extend.”

BRIXWORTH RURAL.—“ One case was reported as against  
 “ six for the previous year. The case occurred at Hannington.  
 “ The yard was clean and in good order. The well was cleaned  
 “ out, but the people were told not to use it for drinking pur-  
 “ poses.”

DAVENTRY RURAL.—“ Two cases of Enteric Fever were  
 “ notified, one case in both Welton and Whilton; the Welton  
 “ case occurred only at the end of the year, and the case in  
 “ Whilton proved fatal.”

OXENDON RURAL.—“ The two cases of Enteric Fever oc-  
 “ curred at an out-lying farm lodge, and in all probability  
 “ had reference to the water supply, which was discontinued  
 “ and a new well sunk. One case proved fatal.”

POTTERSURY RURAL.—“ Three cases of Enteric Fever were  
 “ notified, viz., two at Pottersury and one at Paulersury,  
 “ all due to polluted water.”

THRAPSTON RURAL.—At Woodford “ one case of Enteric  
 “ Fever was seen. The disease at one time was very prevalent  
 “ in this village, but improved drainage and water supply  
 “ seem to have banished it.”

TOWCESTER RURAL.—“ Two cases of Typhoid Fever were  
 “ reported, one at Blisworth in a boy of 14, where the origin

“ was not traced, the other at Towcester, where a woman of  
 “ 24 brought the disease from Rushden.”

WELLINGBOROUGH RURAL.—“ Ten cases have been reported  
 “ —nine in the Earls Barton district and one in the Higham  
 “ Ferrers district—with one death at Wollaston on the second  
 “ day from perforation.”

**Puerperal Fever.**—I have already pointed out that inquiries into the cases of puerperal-fever occurring in the practice of midwives exonerated them from blame, and the value of those inquiries by the District Medical Officers of Health as soon as possible after the notification of such cases, has been shown in the interests of midwives on more than one occasion. I regret that the total number of cases of puerperal-fever during the year 1905 was above the average ; but it is quite certain that very much greater care is taken now by midwives to prevent their occurrence, and, as has been shown, they have **only** been responsible for supervision in rather more than one-third of the total births. The total number of cases of this disease in the Administrative County was 13 with 8 deaths, as against 15 cases with 9 deaths in the year 1904, 7 cases and 3 deaths in 1903, 8 cases and 3 deaths in 1902, 4 cases and no deaths in 1901, and 13 cases and 7 deaths in 1900.

The following remarks on some of the cases have appeared in the Annual Reports, and the importance of the need for steam disinfection, as pointed out by the Medical Officer of Health for the Desborough Urban District, cannot be too strongly emphasised :—

DAVENTRY BOROUGH.—“ One case only, which proved  
 “ fatal. This occurred at the Workhouse in a person admitted  
 “ from the Rural District.”

DESBOROUGH URBAN.—“ One case of Puerperal Fever,  
 “ which occurred in the practice of a midwife, was notified

“ during the year, and, unfortunately, proved fatal. In this  
 “ connection I may be allowed to point out that, in consequence  
 “ of the district being unprovided with a Steam Disinfector,  
 “ thorough disinfection as to clothing, in accordance with the  
 “ rules of the Central Midwives Board, cannot be carried out.”

WELLINGBOROUGH URBAN.—“ The two cases of Puerperal  
 “ Fever were carefully and thoroughly investigated and re-  
 “ ported on ; one occurred in February and one in August.”

BRIXWORTH RURAL.—“ One case was reported, probably  
 “ caused by infection from attendant, but who has not attended  
 “ any case since.”

**Erysipelas.**—Although the number of cases of erysipelas was a good deal less during the year 1905 than it was in 1904, it was still higher than for other years. There were in all 215 cases notified in the Administrative County during 1905 with 10 deaths—two being under five years of age—as against 247 cases with 6 deaths in 1904, 209 cases and 4 deaths in 1903, 187 cases and 6 deaths in 1902, 146 cases and 5 deaths in 1901, and 165 cases and 4 deaths in the year 1900. The distribution of the cases and deaths was as follows:—in the combined Urban Districts there were 103 cases and 4 deaths, and in the combined Rural Districts 112 cases and 6 deaths. The percentage case-mortality for the combined Urban Districts was 3.8, as against 2.5 in 1904, 0.0 in 1903, 3.19 in 1902, 7.57 in 1901, and 5.79 in 1900, while in the combined Rural Districts it was 5.3, as against 2.3 in 1904, 3.36 in 1903, 3.22 in 1902, and 0.0 in 1901 and 1900. For the whole Administrative County the mortality was 4.6 per cent. of the cases, as against 2.4 per cent. in 1904, 1.91 in 1903, and 3.2 in 1902. It is very noticeable, therefore, that the mortality from the disease during 1905 was above the average of most preceding years, particularly in the Rural Districts. I have not been able to find any facts which would seem to explain this circumstance, and it

may be perhaps fairly regarded as accidental, but the whole question as to the real average mortality from the disease is complicated by the fact of many notifications being quite unnecessary. As in the year 1904, so in 1905, 34.0 per cent of the total cases occurred in the Urban Districts of Kettering and Wellingborough; but the exceptional mortality of the Rural Districts was contributed to largely by 2 deaths each in the Daventry and Towcester Districts out of 11 and 7 cases respectively.

**Measles**—There appears to have been a considerable prevalence of measles in the County during 1905, although the mortality from the disease was confined to two Urban—Finedon and Kettering—and three Rural—Kettering, Oundle and Thrapston—Districts. The amount of the mortality was not large as compared with previous years, having been 21 deaths as against 24 in 1904, 30 in 1903, 19 in 1902, and 32 in 1901. All but one of the deaths occurred in children under five years of age. Of the total deaths, 14 occurred in the combined Urban Districts, and 7 in the combined Rural Districts. The mortality from measles is to a great extent a preventable one, for it generally occurs as a sequel to want of care on the part of parents to keep their infants from exposure to cold and the contraction of lung disease when in a debilitated state. Were it not for this fact, the prevalence of the disease would not create the concern which it does. It is to be hoped that from the greater care of infants at birth may come a greater watchfulness over them in their early succeeding years, when their liability to fall victims to disease and neglect is still very great.

The following references to the prevalences of this disease in particular districts are to be found in the Reports of the District Medical Officers of Health :—

**BRACKLEY BOROUGH.**—There was an epidemic of Measles,

which " was severe and a very large number of cases occurred,  
 " but there were no deaths. I advised the closure of the  
 " schools for three weeks in the hope that the epidemic might  
 " be cut short, but the experiment was a total failure."

DAVENTRY BOROUGH.—" This disease is not included under  
 " the compulsory notifiable diseases ; it is therefore impossible  
 " to say how many cases occurred, but in November a case  
 " occurred in a Lodging-house in Brook-street and appeared  
 " to be the origin of what subsequently developed into an exten-  
 " sive epidemic. No death up to the end of the year was,  
 " however, registered as due to the disease. On 27th November  
 " the British Schools, and on the 12th December the Abbey  
 " Schools, were closed in consequence of the epidemic and could  
 " not be re-opened during the remainder of the year."

DESBOROUGH URBAN.—" Measles of a mild type was pre-  
 " valent during the months of March and April, and there is,  
 " happily, no death to record as due to that disease."

KETTERING URBAN.—" Measles have been prevalent  
 " twice during the year, and as usual the mortality has been  
 " large ; probably owing to parents not being aware of the great  
 " care which is necessary to be exercised in cases of this illness.  
 " 13 deaths were certified as connected with this disease."

OUNCLE URBAN.—" Measles have been prevalent at differ-  
 " ent times of the year, but do not seem to have attacked the  
 " children at the Elementary Schools in any large number.  
 " However, it would be advisable for the teachers to make out  
 " a list of all children who have had this disease, as, although  
 " one attack does not necessarily confer immunity against  
 " another attack, it is generally less severe, and the only chance  
 " of preventing the spread of this very infectious and dangerous  
 " illness is to isolate all children who have not previously had  
 " the disease, immediately on the first case occurring in the  
 " school. Even if this method be adopted, a serious outbreak

“ cannot always be avoided, but it is the best method at present  
“ known.”

BRIXWORTH RURAL.—“ There was an extensive epidemic  
“ in East Haddon, caused by infection from Northampton.  
“ The Schools were closed for three weeks for thorough dis-  
“ infection.”

DAVENTRY RURAL.—“ Measles not being a notifiable dis-  
“ ease, many cases may occur without my becoming aware of  
“ the fact ; there was, however, an outbreak of the disease in  
“ Everdon during the summer, but no case was fatal.”

EASTON-ON-THE-HILL RURAL.—“ There was an epidemic  
“ of Measles at Easton, but no fatal cases.”

HARDINGSTONE RURAL.—“ The Schools of Great Houghton  
“ were also closed in November on account of an epidemic  
“ of measles. It was brought into the village by a child who  
“ had been staying at Brackley, where there was an epidemic  
“ of this disease, and it quickly attacked almost every child  
“ who was susceptible. There was no fatal case.”

OUNCLE RURAL.—“ Measles was very prevalent in King’s  
“ Cliffe during the summer, and interfered very much with  
“ the working of the School which had to be closed.”

POTTERSPURY RURAL.—“ It was deemed necessary to  
“ close the schools at Yardley Gobion, and Cosgrove, tempo-  
“ rarily, owing to extensive outbreaks of Measles, the former  
“ for a fortnight and the latter for a month.”

TOWCESTER RURAL.—“ Measles prevailed considerably  
“ at Abthorpe during February.”

**Chicken Pox.**—Although this disease does not appear  
to have prevailed generally in the County during the year,  
the following abstract will be found of interest :—

HARDINGSTONE RURAL.—“By order of the Council, “chicken-pox has now been classed amongst the diseases to “be notified, and four cases have thus come to our knowledge, “but there were many more cases, and the Schools at Wootton “were obliged to be closed on account of the numbers affected “by it. The explanation is that the disease was so mild that “no medical man was called in, consequently no notifications “were sent.”

**Whooping Cough.**—Judged by the mortality from it, this disease appears to have been more prevalent in the year 1905 than it was in the two preceding years. The total number of deaths from whooping-cough in the whole Administrative County amounted to 65, as against 40 in 1904 and 1903, 64 in 1902, 29 in 1901, and 46 in 1900. There were 38 deaths in the combined Urban Districts, all of which were of children under five years of age, and 27 deaths in the combined Rural Districts, 25 of which were of children under five years of age.

The following few particulars as to the prevalence of this disease are to be found in the Annual Reports of the District Medical Officers of Health :—

BRACKLEY BOROUGH.—There was an epidemic of whooping-cough, with three deaths.”

DESBOROUGH URBAN.—“Whooping Cough was very “prevalent during the months of April and May, and was “responsible for two deaths, both in children below the age “of one year.”

FINEDON URBAN.—“A few cases of whooping-cough “occurred during the year, one death being due to this cause.”

IRTHLINGBOROUGH URBAN.—“This disease was prevalent “in the early part of the year. Sufficient care was, as usual, “not taken of the children affected. Complications were “frequent, and five deaths resulted.”

BRIXWORTH RURAL.—“Has been in epidemic form  
“in Spratton, Ravensthorp, Hollowell. The schools of  
“Ravensthorp and Hollowell were closed.”

DAVENTRY RURAL.—“An outbreak of Whooping Cough  
“occurred in Long Buckby during December, and one case  
“was fatal; a fatal case also occurred at West Haddon.”

KETTERING RURAL.—“Whooping Cough and its com-  
“plications has proved fatal in six cases—Broughton three,  
“Burton two, Beanfield Lawns one.”

MIDDLETON CHENEY RURAL.—“The school at Upper  
“Boddington was closed at the commencement of the year  
“owing to an epidemic of Whooping Cough in the parishes  
“of Upper and Lower Boddington, also the School at Chipping  
“Warden for the same cause in December.”

WELLINGBOROUGH RURAL.—“Whooping Cough has caused  
“three deaths, two being in the Earls Barton district and one  
“in the Higham Ferrers district.”

**Diarrhœa.**—There was a very considerable falling off  
in the mortality from diarrhœa, as compared with previous  
years. There were in all 21 deaths from this disease in the  
whole Administrative County, as against 57 in the year 1904,  
28 in 1903, 22 in 1902, 50 in 1901, 52 in 1900, 102 in 1899,  
87 in 1898, 77 in 1897, and 47 in 1896. Of the deaths which  
occurred during the year 1905, 14 belonged to the combined  
Urban Districts, of which 13 were of children under five years  
of age, and 7 belonged to the combined Rural Districts, all  
of which were of children under five years of age. The Urban  
Districts of Finedon, Kettering and Wellingborough were the  
chief contributors to this mortality, the three being responsible  
for 12 deaths or 57.0 per cent. of the whole number, while the  
Wellingborough mortality was equal to that of Finedon and  
Kettering together.

**Influenza.**—There were 21 deaths from epidemic influenza in the whole Administrative County during the year 1905, as against 24 deaths in the year 1904, and 35 deaths in 1903. Of these deaths only 3 occurred in the combined Urban Districts, as against 10 in 1904, and 18 in the combined Rural Districts, as against 14 in 1904. The Rural Districts, therefore, suffered more apparently than the Urban Districts. All the deaths were of persons over five years of age, with a single exception in the Thrapston Rural District. The Rural Districts which appear from their mortalities to have suffered most were Daventry, Gretton, Kettering, Oxendon, and Thrapston.

The following are the only references to the subject to be found in the Reports of the District Medical Officers of Health :—

DAVENTRY BOROUGH.—Influenza prevailed “in the early “months of the year,” but occasioned no mortality.

TOWCESTER RURAL.—“Influenza in a modified form appeared sporadically throughout 1905, and in increased “numbers in the last three months of the year, principally “in Towcester and Greens Norton.”

**Cerebro-Spinal Fever.**—In the early part of the year a good deal of attention was aroused by the reported extensive prevalence in Central Europe and in America of cerebro-spinal fever, which is otherwise also known as epidemic cerebro-spinal meningitis, and spotted fever. The malady is far from unknown, however, in this country, and local outbreaks of it in the United Kingdom have been investigated carefully during recent years. The disease has been indeed variously mistaken for sunstroke, enteric fever, and influenza, where the definite symptoms of the real disease have not been well marked ; but it produces very serious illness, characterised by profound disturbance of the central nervous system, though not necessarily of a fatal character. It unhappily fell to the lot of this county to provide two instances of local outbreaks during the year

1905, the investigation of one of them forming the subject of a valuable report by the Local Government Board.

The following extracts from the reports of the Medical Officers of Health refer to these two outbreaks :—

IRTHLINGBOROUGH URBAN.—“ An alarming outbreak of  
 “ this disease, fortunately rarely seen in epidemic form in this  
 “ country, occurred in January, and continued till May, re-  
 “ sulting in 4 deaths in one house. In May, I presented a report  
 “ to the Council on the outbreak. Dr. Reginald Farrar made  
 “ an investigation, and subsequently prepared an exhaustive  
 “ report on the outbreak for the Local Government Board,  
 “ copies of which were presented to the members of this Council,  
 “ so that I need not further refer to the matter. This disease,  
 “ is not, at present, included in the list of notifiable ones,  
 “ but in the event of any further outbreak, the Local Govern-  
 “ ment Board would be prepared to sanction its inclusion and  
 “ also the adoption of other extra Sanitary precautions that  
 “ might be considered necessary.”

KETTERING RURAL.—“ The outbreak of illness which caused  
 “ us the greatest anxiety, and the family attacked the greatest  
 “ suffering and inconvenience, was the appearance of Cerebro  
 “ Spinal Meningitis at Grafton Lodge. At the beginning of  
 “ August, 3 very severe cases of this really dreadful disease  
 “ appeared, and although none of them proved fatal, their  
 “ sufferings were intense, and only one has yet entirely recovered  
 “ his health and strength, the other two are still suffering from  
 “ partial paralysis, from which it is not certain that either of  
 “ them will completely recover. It was thought at first that  
 “ infection could be traced to the late outbreak of this illness  
 “ at Irthlingborough; but on a thorough enquiry at the time  
 “ by ourselves, and later on by Dr. Farrar, who was sent by  
 “ the Local Government Board to investigate the matter, the  
 “ possible connection between the two was so very slight that  
 “ that idea was virtually abandoned. This mysterious out-

“ break occurring to a healthy family, living in a healthy house,  
 “ and standing quite alone, must, I fear, still remain unex-  
 “ plained. It does not even yet appear certain whether all  
 “ the vigorous means which were taken at the time, and the  
 “ great inconveniences which the family suffered (and they  
 “ spared themselves in no way to carry out the measures of  
 “ isolation and disinfection which were suggested), were ab-  
 “ solutely necessary, but the Local Government Board had  
 “ decided, from the thorough investigations they had made,  
 “ that it should be treated as a highly infectious disease, and  
 “ issued circulars to that effect, and their instructions were  
 “ carried out. The house being a large one, those attacked  
 “ with the illness were shut off in one part of it with a skilful  
 “ nurse, and even after they could get out of doors were kept  
 “ entirely away from others. No signs of illness appeared in  
 “ any other member of the family, neither was the Nurse  
 “ or the person who took charge of them after her departure  
 “ in any way affected. On studying the history of other  
 “ outbreaks of this illness, and the undoubted nature and  
 “ severity of the Grafton cases, we must consider ourselves  
 “ very fortunate that our efforts were successful, although the  
 “ lone and healthy position of the house, and the hearty and  
 “ sensible co-operation of the friends of the sufferers, of course,  
 “ gave us unusual advantages.”

**Anthrax.**—In regard to this disease, as affecting the human  
 subject, the Medical Officer of Health for the Thrapston Rural  
 District writes thus :—“ In May, Dr. Mackenzie kindly reported  
 “ a fatal case of Anthrax in a man employed at a farm in  
 “ Hargrave. I visited the case at once with Dr. Mackenzie.  
 “ We considered that the man contracted the disease through  
 “ carrying baskets of bone manure on the back of his neck,  
 “ on which he had a slight scratch. Information was given to  
 “ the police, and the farm-yard was thoroughly cleansed.  
 “ The house was disinfected and limewashed, and the bedding  
 “ destroyed.” The Medical Officer of Health for the Welling-

borough Urban District also reports as follows :—“ There was  
 “ a case of Anthrax in January, a woman at the Brush Factory,  
 “ and a careful investigation was made. The cause of infection  
 “ was probably from the want of sufficient care in the personal  
 “ surroundings of the patient, all due precautions having been  
 “ taken by the employers. This case was not fatal. There  
 “ was another case in April, which ended fatally at the Cottage  
 “ Hospital. There was no connection between the cases,  
 “ but nothing could be ascertained about the cause.”

#### ISOLATION HOSPITALS AND DISINFECTION.

The question of provision of isolation hospital accommodation still engages attention, as also does the equally important matter of disinfection by steam in every District of the County. I am glad to find that the new Oundle Rural District Hospital is fully meeting the calls upon it, and that it is maintained in a satisfactory condition ; it is pleasing also to record that the Oxendon and Potterspury Rural Districts are now provided with portable disinfecting apparatus, and that there is a fair prospect of other Districts being furnished with better means for the disinfection of clothing and bedding. But a good deal remains to be done in the latter direction, as may be gathered from the extract from the Report of the Medical Officer of Health for the Desborough Urban District, under the heading of Puerperal Fever, and from others about to be given. I hope that I may be able to chronicle more progress in this matter in my next report, for it is essentially as much a question of economical administration as of public health importance. It is also worth while to bear in mind that the requirements of the Central Midwives Board in regard to the stoving of midwives' clothing, after they have been in contact with infectious sickness, may be made of a more compulsory nature when, in the course of the current year, the Rules of the Board come up for revision.

The following interesting extracts will be found to bear largely on this subject :—

IRTHLINGBOROUGH URBAN.—“ A large quantity of bedding  
 “ has had to be destroyed during the year, and the expense  
 “ to the Council, in the purchase of new to replace it, must have  
 “ been considerable. I have repeatedly advised that a steam  
 “ disinfecter be purchased, but no definite decision has been  
 “ arrived at. I understand that your Inspector has been asked  
 “ to visit and inspect one of these disinfectors at work, and  
 “ the matter must be left in abeyance until his report has been  
 “ received and considered.”

KETTERING URBAN AND RURAL.—“ The Joint Isolation  
 “ Hospital of the Kettering Urban and Rural Districts has been  
 “ occupied during the whole of last year. Owing to its specially  
 “ healthy site, thorough ventilation, the quantity of air space  
 “ allowed for each patient, and the careful nursing, many patients  
 “ showed a marked improvement in their condition within  
 “ a few days, and a large majority of those treated as well as  
 “ their relatives, have expressed themselves as thoroughly  
 “ satisfied with their treatment. Although as I have stated on  
 “ previous occasions, the actual arrest of infectious disease in  
 “ the Urban District is not so satisfactory or marked as in the  
 “ Rural District, which can be easily understood, yet the  
 “ relief to families, who would have to be isolated, and that  
 “ very imperfectly, for many weeks, is very great from both  
 “ a pecuniary and social point of view. The speedy removal  
 “ from the following villages of the earliest cases seemed to  
 “ at once arrest the spread of the disease :—Corby, Burton  
 “ (twice), Warkton, Geddington, Cranford. Only 3 deaths  
 “ have occurred in the Hospital, all of malignant Scarlet  
 “ Fever, out of 175 patients treated ; this is a very low per-  
 “ centage. The following account gives the details :—In  
 “ Hospital at commencement of 1905—24 cases of Scarlet  
 “ Fever, all from Kettering. Admitted during the year—

“ from Kettering, 126 cases, Scarlet Fever 117, Diphtheria 5,  
 “ Typhoid Fever 4 ; from Burton 12, Scarlet Fever 11, Typhoid  
 “ 1 ; from Corby 8, all Scarlet Fever ; from Warkton 3, all  
 “ Scarlet Fever ; from Geddington, 1 of Diphtheria. Remain-  
 “ ing in Hospital at the end of the year—8 cases of Scarlet  
 “ Fever from Kettering, 3 cases of Scarlet Fever from Warkton,  
 “ 1 case of Scarlet Fever from Cranford, 1 case of Diphtheria  
 “ from Geddington. The Nursing arrangements have been  
 “ carried out in an excellent manner ; the cases of Typhoid  
 “ which were admitted were very severe, and certainly 2 of  
 “ them, without very constant attention night and day, must  
 “ have proved fatal.”

OUNCLE URBAN.—“ We have no town disinfectant, and the  
 “ matter is now being discussed by your Sanitary Committee.  
 “ We have no Isolation Hospital, a lack of which creates  
 “ considerable hardship on people with slender house accom-  
 “ modation when zymotic disease appears.”

RAUNDS URBAN.—An account is given of the hospital  
 accommodation, similar to what appeared in the Annual Report  
 for 1903. The hospital is of wood and iron construction,  
 and contains two wards for four beds each.

WELLINGBOROUGH URBAN.—“ The Isolation Hospital for  
 “ zymotic diseases is in good and useful order. Seven cases  
 “ received treatment there during the year, viz., Scarlet Fever  
 “ 4 cases, in January, August, and October, and Typhoid 3  
 “ cases, in October. The Small Pox Hospital is situated a  
 “ mile from the town and is quite isolated ; it is in good  
 “ order, and always ready for use.”

GRETTON RURAL.—“ I would direct your attention to  
 “ my observations under this heading in my last Annual Re-  
 “ port, and again ask you to sanction the purchase of a portable  
 “ sprayer. A useful one can be obtained for £2 2s. As I have

“ already pointed out, a reliable disinfecting machine in which  
 “ formalin is applied in conjunction with current steam can  
 “ be obtained for £25. At present you have no means whatever  
 “ of properly disinfecting bedding and clothing.”

HARDINGSTONE RURAL.—“ The Infectious Hospital has  
 “ been open for scarlet-fever cases during the year, and 34  
 “ cases from this district were treated in it, whilst four from  
 “ other districts were also admitted, three from the Northamp-  
 “ ton Rural District, which paid for their maintenance.”

MIDDLETON CHENEY RURAL.—“ In this District there is  
 “ no method of dealing with Infectious Diseases. There is  
 “ no Isolation Hospital, neither is there any provision made  
 “ for the disinfection of infected clothing.”

NORTHAMPTON RURAL.—“ There has been no occasion to  
 “ use the hospital tent provided for an emergency should small-  
 “ pox break out, but the tent is still held in reserve. On several  
 “ occasions, however, we have found it necessary to make use  
 “ of the arrangement with the Northampton Town Council  
 “ to disinfect contaminated bedding and other articles after  
 “ infectious disease. A difficulty has arisen in respect to con-  
 “ veying these infectious articles to and fro, as the Northamp-  
 “ ton Authorities refuse to allow us to use their ambulance for  
 “ this purpose. I think the difficulty would be best met by  
 “ the provision of an ambulance for this purpose for the use  
 “ of this Authority. No necessity has arisen at present under  
 “ the Midwives Act to disinfect any clothing, etc., that may  
 “ get infected in cases of puerperal fever, but provision has  
 “ been made should such an emergency arise to disinfect such  
 “ articles by the Borough Authorities.”

OUNDLE RURAL.—“ The Isolation Hospital has been in good  
 “ working order. I consider that the caretakers, Mr. and Mrs.  
 “ Parker, work admirably. Patients are removed at once  
 “ on order, the disinfection of clothing is carried out efficiently,

“ and the whole place is kept beautifully clean. Nine patients  
 “ were treated suffering from Scarlatina ; all made excellent  
 “ recoveries. One great use of removing patients to hospital  
 “ is that it allows the members of the household from which  
 “ they are removed to continue their usual life instead of suffer-  
 “ ing inconvenience or pecuniary loss. The following cases  
 “ were treated, viz., domestic servant in a gentleman’s house,  
 “ where a number of other servants were kept ; the wife and  
 “ child of a gentleman’s butler ; the daughter of a shopkeeper,  
 “ and his indoor assistant ; the child of a gentleman’s gardener ;  
 “ the child of a station-master on the railway ; and the child  
 “ of a Publican. I think the advantage of removing these cases  
 “ must be obvious. Gentlemen in the neighbourhood have  
 “ kindly given shrubs and trees for improving the appearance  
 “ of the place. I should like to have a swing for the children,  
 “ and some garden seats.”

OXENDON RURAL.—“ The methods of dealing with In-  
 “ fectious diseases are by notification and Home Isolation. All  
 “ cases are visited and inspected as regards the premises,  
 “ and disinfectants freely provided by the Council. Dis-  
 “ infection is carried out of the premises subsequently, and a  
 “ Thresh’s Portable Disinfector has been provided by the  
 “ Council for the treatment of such materials as require it.  
 “ There is no Isolation Hospital, nor is there any scheme for  
 “ such provision.”

POTTERS PURY RURAL.—“ A portable Disinfector has been  
 “ provided for the district.”

THRAPSTON RURAL.—“ The question of providing a suit-  
 “ able disinfecting apparatus was discussed, and it was de-  
 “ cided to join with the Guardians in providing a fixed dis-  
 “ infector. I understand the matter is now in abeyance,  
 “ pending arrangements with the latter body.”

1880

Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Wheat	100	100	100	100	100	100	100	100	100	100	100
Barley	100	100	100	100	100	100	100	100	100	100	100
Oats	100	100	100	100	100	100	100	100	100	100	100
Rye	100	100	100	100	100	100	100	100	100	100	100
Maize	100	100	100	100	100	100	100	100	100	100	100
Beans	100	100	100	100	100	100	100	100	100	100	100
Peas	100	100	100	100	100	100	100	100	100	100	100
Turnips	100	100	100	100	100	100	100	100	100	100	100
Other	100	100	100	100	100	100	100	100	100	100	100

...



TOWCESTER RURAL.—“The Disinfecter, the Sanitary Inspector tells me, has worked satisfactorily, except that on one occasion a bed was scorched as it was too large to be properly introduced.”

#### VACCINATION.

The accompanying Table, giving an Analysis of the Returns of the Vaccination Officers for the different Unions of the County, for the years 1893—1904, is a continuation of that which I submitted in the years 1903 and 1904. It shows very markedly the effects of the prevalence of small-pox in inducing vaccination, particularly in recent years. There was, it may be remembered, an increase in the amount of vaccination in the year following the coming into operation of the Vaccination Act of 1898, due in large part probably to the establishment of domiciliary vaccination ; but the introduction of cases of small-pox into the county in the years 1901 and 1902 had a very stimulating influence on the desire of persons to seek protection from the disease. There has since the last named year been less alarm of the risk of contracting small-pox, and this fact appears to be reflected in the figures for the years subsequent to 1902. For the information by means of which I am able to furnish the accompanying Table, I beg to express my very cordial acknowledgments to the Clerks of the several Unions of the County. The following are the only references to the subject of Vaccination furnished in the Reports of the District Medical Officers of Health :—

BRIXWORTH RURAL.—“Vaccination has been carried out fairly well, but the Vaccination Officers are not as well supplied with lists from the Registrars of Births as they should be. Each year I have heard of fewer conscientious objectors.”

TOWCESTER RURAL.—“As to Vaccination, I am again indebted to the Vaccination Officer for the following particulars :  
“In the Towcester Sub-District 91 children were vaccinated

“ representing nearly 68 per cent. of the Births registered, and  
 “ in the Abthorpe Sub-District 68, equalling 64 per cent.”

WELLINGBOROUGH RURAL.—“ Vaccination has been effi-  
 “ ciently carried out.”

#### WATER SUPPLY.

The drought of 1905 told severely on the water yielding capacities of many of the local sources of supply, and it is all the more satisfactory, therefore, to find that there was not as a consequence an excess of diseases which are commonly associated with the consumption of impure water. In Brackley Borough, and the Desborough and Kettering Urban Districts particularly, the yield of water from their public water supplies failed markedly, but it is hoped that the works in hand at these places will be sufficient to guard against a recurrence of such failure in the near future. It is very gratifying also to note the successful progress of works in the Raunds Urban District towards the establishment of a public water supply at that place, and I hope to be able to chronicle still further advance in my next Annual Report. In the Hardingstone and Northampton Rural Districts, as well as in the Kettering Rural District, satisfactory steps have been or are being taken to improve the water supplies of populous places, and there is good prospect of the reservoir for the Borough of Higham Ferrers and the Rushden Urban District efficiently meeting the needs of those places during the ensuing summer. There has indeed been greater progress from the public health point of view in the provision of sufficient and wholesome public services of water than in any other direction in the county during the past eight years, and, with such supplies as are being made now, and as have been completed in the Finedon and Irthlingborough Urban Districts, further diminutions in outbreaks of enteric fever may be fairly looked for.

In this connection, the following extracts from the Reports will be found to be of considerable interest :—

BRACKLEY BOROUGH.—“The gradual lowering of the  
 “water level in the well during the year has caused considerable  
 “anxiety. There has been difficulty in pumping owing to the  
 “head of water being soon lowered and the pumps sucking air  
 “and the engines racing; the water level is now only seven  
 “feet. The engines show considerable signs of wear; the  
 “bearings are loose, and the concrete foundations appear to  
 “be shaken and disintegrating. You have consulted Mr.  
 “Eunson, of Northampton, an engineer who has been long  
 “familiar with the conditions here, and his report is now under  
 “your consideration. He points out that the matter is urgent  
 “and recommends that a bore hole of 12 inches diameter  
 “be sunk, from which the reservoirs could be supplied, while  
 “the necessary lowering of the present well and overhauling  
 “of the engines could be proceeded with. It appears certain  
 “that an absolute breakdown of the water supply will take  
 “place before long if some steps are not taken to augment the  
 “supply. At the present time the supply to the town is cut  
 “off from 9 p.m. until 6 a.m.”

HIGHAM FERRERS BOROUGH.—“The new reservoir of  
 “the Higham Ferrers and Rushden Water Board was sufficiently  
 “advanced in July to allow of the impounding of the water,  
 “but owing to the dry weather that prevailed for the most part  
 “till the end of the year the amount collected was not consider-  
 “able. Since then, however, the more abundant rainfall has  
 “had an excellent effect, and the reservoir is now filling at a  
 “satisfactory rate. I think there can be no doubt that before  
 “the summer an abundant supply of good water will be available  
 “for use.”

DESBOROUGH URBAN.—“The depth of water in the Water-  
 “works Well, which I referred to in my last annual report as  
 “being unsatisfactory, continued steadily to decrease, to such  
 “an extent indeed that in September it was deemed necessary  
 “to cut off the town supply during the night. As no marked

"improvement resulted the supply in October was turned off  
 "in the afternoon as well. About the middle of November,  
 "with the assistance no doubt of an increased rainfall, there  
 "was a satisfactory rise in the well's water level and this improve-  
 "ment has since continued. Owing to the very serious state  
 "of the town's water supply the Council decided to act upon  
 "the advice of their Engineer to sink a well to the marlstone  
 "in land belonging to the Co-operative Society. The work  
 "was commenced in August and at the present time a depth  
 "of 150 feet has been reached, the expenditure so far involved  
 "amounting to £250. It is to be sincerely hoped that success  
 "may soon attend the efforts that are being made to obtain  
 "a plentiful supply of water from this source, and thereby  
 "assist in removing any anxiety that may exist as to the pro-  
 "vision for the town of that which is of prime sanitary im-  
 "portance."

FINEDON URBAN.—"The water from the mains has been  
 "laid on to a goodly number of properties, but much still re-  
 "mains to be done in this direction. The people are beginning  
 "to like the water much better than they did, and will do so  
 "still more. The water to my taste is less saline than it was."

IRTHLINGBOROUGH URBAN.—"The formal opening of the  
 "Waterworks took place in September, and, since then, nearly  
 "300 houses have had the water supplied. Owing to the  
 "outbreak of Typhoid Fever in various parts of the town, the  
 "well water in connection with the properties affected has been  
 "analysed, and in every case but one, found contaminated  
 "and totally unfit for drinking and domestic purposes. The  
 "opening of the ground for new sewers, the taking out of old  
 "existing ones, and the consequent loosening of the soil, must  
 "render all wells situate in or near gardens and close to the houses  
 "more liable to pollution, particularly after heavy rains.  
 "Excrementitious matter and other impurities may be washed  
 "from the paths or from the surface of the gardens into the

“ well, or they may readily percolate through the subsoil  
 “ and enter it lower down. In draw wells, the pails used are  
 “ not always scrupulously clean. In my opinion, so long as  
 “ such sources of water supply are allowed to continue, and  
 “ more particularly as a great many sewer connections have  
 “ yet to be made, localised outbreaks of Typhoid Fever and  
 “ other conditions liable to be caused by contaminated water,  
 “ are likely to occur. If, therefore, property owners have the  
 “ health of their tenants and the public weal at heart, they  
 “ will take immediate steps to provide them with the inestimable  
 “ benefits of a pure and wholesome water supply.”

KETTERING URBAN.—“ As in many other places the Water  
 “ Supply of Kettering has not been so abundant as formerly ;  
 “ the unusually dry season, and the slipping of the embank-  
 “ ment of the new reservoir before it was completed, contributed  
 “ to greatly curtail the ample supply which we have generally  
 “ enjoyed. The water which was frequently tested was always  
 “ found to be wholesome and good, although in November  
 “ the water in the reservoir was 15 feet below the ordinary  
 “ level, and only 26,000,000 gallons remained ; the only incon-  
 “ venience caused was the cutting off the ‘ constant ’ supply for  
 “ a few hours during the night. The Council took useful ad-  
 “ vantage of the low state of the water in the reservoir to have  
 “ a large quantity of the weeds, filth, and vegetable matter  
 “ which had accumulated during the thirteen years since the  
 “ reservoir was filled, removed ; this action was also useful  
 “ just at that time in giving employment to many men who  
 “ would otherwise have been out of work. All anxiety as to  
 “ the future is now at an end, as rain has at last come, the slip  
 “ in the bank of the new reservoir has been repaired, and before  
 “ another summer sets in will have begun to store water on its  
 “ own account. Work is now in hand to improve the pressure,  
 “ and some extensions of mains have been made which will  
 “ have the same effect.”

OUNDLE URBAN.—“ This continues to be excellent, both  
“ in quantity and quality.”

RAUNDS URBAN.—“ The work of well sinking was begun  
“ on the 23rd September, 1904, and has been going on steadily  
“ ever since that date. When the contractors had reached a  
“ depth of 16 feet a large stream of pure water was tapped in  
“ the gravel—this stream after weeks of pumping was found  
“ to discharge well over 500,000 gallons a day—again at a depth  
“ of 101 feet they tapped a stream in the Upper Lias Clay,  
“ both these streams proved very troublesome. When the  
“ contractors had reached a depth of 115 feet they became  
“ bankrupt, and this temporarily stopped the works. After  
“ a considerable interval the work was taken over by the Council  
“ and placed in the hands of their engineer, Mr. Yorke, who  
“ is now going on with it, and who hopes at an early date to  
“ reach the Marlstone and report the final result to the Council.”

ROTHWELL URBAN.—“ We have an excellent water supply,  
“ which is now laid on all over the town, so that there is no reason  
“ why any house should not have a good supply of water.  
“ both for drinking and household purposes.”

RUSHDEN URBAN.—“ Three samples of water have been  
“ examined, all of which were found to be good. The water-  
“ works are making progress, and I hope ere long to be able to  
“ report their completion, when the town of Rushden will  
“ compete successfully with other towns.”

WELLINGBOROUGH URBAN.—“ The water supply is from  
“ the public service. In nature, it is well-water containing  
“ Lime and Iron, free from pollution, being pumped from the  
“ wells, softened, filtered, and stored in closed, locked Reservoirs.  
“ There is a plentiful supply, but frequently has too much white  
“ sediment.”

BRACKLEY RURAL.—The District “ derives its water

“ supply from shallow wells, and the absence of water-borne  
 “ disease generally speaks as to the quality of the supply.  
 “ The amount has been sufficient, except in one or two cases  
 “ towards the autumn when the springs were low.”

BRIXWORTH RURAL.—“ Water Supply is the same as in  
 “ the previous year. There is still a shortage in summer in  
 “ New Brixworth.”

CRICK RURAL.—“ With the exception of Lilbourne, where  
 “ there has been again some scarcity of water, and which as  
 “ far as possible has received attention, no complaints of scarcity  
 “ have been received from any other parts of the district.  
 “ The public wells have also received due attention in all the  
 “ other villages.”

DAVENTRY RURAL.—“ The Long Buckby new water supply  
 “ has been completed during the year, and the town is now  
 “ in possession of a good and plentiful supply of wholesome  
 “ water. A new scheme has been decided upon for supplying  
 “ Badby with good water ; this only awaits the approval of  
 “ the Local Government Board, and for the loan of £1,060  
 “ to be arranged, when the work will be started without delay.”

HARDINGSTONE RURAL.—“ Denton Water Scheme is  
 “ now complete and the supply is available for the whole of the  
 “ village. The Brafield water supply was turned on early  
 “ in the month of June by the Chairman of the District Council  
 “ in the presence of the members of the District and Parish  
 “ Councils. The working of the standpipes is not quite satis-  
 “ factory, and some correspondence is being carried on with  
 “ the firm that supplied them. During the year a fresh supply  
 “ of water has been obtained for the cottages at Hunsbury Hill,  
 “ which were previously very badly supplied, and it has also  
 “ been made available for the men working at the furnaces.  
 “ The water supply at Hardingstone has been improved by

“ the introduction of filter beds, and this has rendered the supply  
 “ more pure, whilst no complaints have been ever received  
 “ as to its sufficiency.”

KETTERING RURAL.—“ The Water Supply in this district,  
 “ as in many others, has been, of course, very short, and has  
 “ given great trouble to many, it seems to have been felt most  
 “ at lodges and houses standing alone. The scheme for the  
 “ supply of Burton Latimer, which will probably also supply  
 “ Warkton, is still progressing.”

MIDDLETON CHENEY RURAL.—“ Considering the dry  
 “ season, the Water Supply has been on the whole good. At  
 “ the end of September it was feared that the supply at Lower  
 “ Boddington was failing, but, on opening up the drains which  
 “ fed the supply tank, it was found they were choked with roots.  
 “ When this obstruction was removed there proved to be an  
 “ ample supply.”

NORTHAMPTON RURAL.—“ After many vicissitudes the  
 “ Northampton Town Council have agreed to supply the village  
 “ of Duston with water from their town supply. A scheme  
 “ has accordingly been drawn up and submitted to the Local  
 “ Government Board. An inquiry has been held by one of their  
 “ Inspectors, and the scheme has been approved by the Local  
 “ Government Board. The works are now in progress, and  
 “ pipes are being laid to the village, so that very shortly I hope  
 “ it will receive a plentiful supply of good water. This will  
 “ be a great boon to the inhabitants, who have long suffered  
 “ from both a deficient and impure supply. The water supply  
 “ at Kislingbury and Heyford still proves very satisfactory  
 “ and there has been no hitch in the working of either of these  
 “ supplies during the year.”

OUNDLE RURAL.—“ I inspected the School Well at Warming-  
 “ ton with the County Medical Officer of Health ; our opinion

“ was that no improvement would ever make the well a reliable supply.”

OXENDON RURAL.—“ The Water Supply of the District has proved generally satisfactory during the year, and the whole of the District, with the exception of Stoke Albany, is fed by pumps and wells. Stoke Albany is supplied by a public iron service and Welford by a spring. The deficient supply at Braybrooke has been rectified, and is now sufficient, a new well having been sunk. All the water supplies are kept under observation, and samples taken and tested from time to time, twelve having had special attention during the year. The surroundings of the wells are kept under supervision and repairs made and defects remedied as required, and all are in good condition.”

POTTERSURY RURAL.—“ The recurrence from time to time of Enteric Fever at Potterspury has been fully reported upon. . . ., but the water supply, repeatedly condemned, remains the same, owing to the opposition of small owners and ratepayers to any scheme involving much expense. At Paulerspury steps are being taken to formulate a scheme for providing a satisfactory supply. . . . A public water supply for Hartwell is in hand. Wicken and Denshanger have public supplies of good quality. The rest of the district is dependent on shallow wells, more or less exposed to contamination.”

THRAPSTON RURAL.—“ By directions of the Local Government Board I made a special report upon the water supply, of Thrapston, copies of which were sent to the Local Government Board, and the Northamptonshire County Council.”

TOWCESTER RURAL.—“ The Towcester water supply from the Dockwell Mill Reservoir was a failure during the greater part of the year, and that supplied by the pumping

“ station at Towcester was extremely unsightly from the presence  
 “ of suspended clay. Towards the end of the year, in conse-  
 “ quence of complaints made to the District Council, a Sub-  
 “ Committee was appointed to investigate the matter, and as  
 “ a result of their action there has been a decided improvement  
 “ in the appearance of the water.”

WELLINGBOROUGH RURAL.—“ The water supply in most of  
 “ the parishes is derived from shallow wells. That, however,  
 “ although generally considered sufficient to condemn any water,  
 “ is not, in my opinion, necessarily dangerous, if the site is  
 “ carefully selected, and the wells properly constructed. At  
 “ Irchester all the water supply has been on chemical analysis  
 “ condemned as being unfit for domestic use, yet for several  
 “ years there has not been a single case of Enteric Fever, or  
 “ any disease that could in any way be attributed to bad water.  
 “ Wilby has now an efficient supply. At Isham and Little  
 “ Harrowden the respective Parish Councils are considering  
 “ a scheme for an adequate supply. Several samples have  
 “ been examined and reported upon.”

#### DWELLING-HOUSES AND OVERCROWDING.

In most of the Districts of the County, building operations were slack during the year 1905. Where trade flourishes there seems to be no difficulty in the provision of sufficient housing accommodation, but in the purely agricultural areas, and in places circumstanced as Brackley Borough is stated to be, the inducement to build better cottages is seriously curtailed by the unequal proportions between wages and payable rents. There appear to have been a fair number of houses built in some of the Urban Districts, but very few in the Rural Districts. It is satisfactory to note, however, that the overcrowding of dwellings appears to have been less than it has been in previous years, though it is not plain if this be due to a continuance of the process of rural depopulation which in some years past

was very noticeable. As I have said before, much may be done in preserving cottages by timely repair and gradual improvement, while the neglect of such procedure can only end in ultimate unfitness of cottages for human habitation. I am glad to be able to notice that rather more has been done in this direction than formerly in some of the Rural Districts. The problem of rural housing is so intimately connected, however, with that of agricultural prosperity or depression that it is difficult to define precise lines on which when there is shown to be a dearth of cottages for agricultural labourers—capable of paying rents up to but not beyond 3s. a week—these can be provided under existing conditions to pay enough for interest on capital, rates, insurance, and repairs. The relaxation of restrictive provisions in building bye-laws for rural districts may do something to reduce the cost of building, but the prohibitive cost of land at the first suggestion of building has yet to be combated.

The following extracts from the Reports of the District Medical Officers of Health will be found of interest, especially when compared with like extracts of former years :—

BRACKLEY BOROUGH.—“ I would refer you to previous reports on the subject of Housing of the Working Classes, and would point out that there are a number of houses in the borough unfit for human habitation. During the year a block of cottages was removed by the owners in order to make room for the new Wesleyan Church. The fact that it would not be possible to re-house any tenants displaced from the cottages I have condemned makes you hesitate to close these houses. There has always been a difficulty in getting cheap cottages in Brackley ; the two chief estates (comprising nearly all the land in the borough) are managed on strict commercial principles, and no really cheap cottages are erected nor is it possible to purchase any land.”

DESBOROUGH URBAN.—“ There were nine cases of overcrowding brought to the notice of your Sanitary Committee, but, thanks to the tact and persuasive powers exercised by your Inspector, these nuisances were all abated without having to resort to legal measures. With the erection of 23 houses during the year and further house-building operations in progress there should be no excuse for overcrowding in families, at any rate such nuisances should be few and far between.”

FINEDON URBAN.—“ Seven cases of overcrowding have been enquired into and remedied.”

RAUNDS URBAN.—“ House accommodation is very good in Raunds and is improving every year, although during the year we have only added one new house to the town, building operations being at a standstill principally on account of the bad state of trade during the year. . . . 35 houses have been connected to the common sewer during the year, leaving about 35 still to be connected.”

ROTHWELL URBAN.—“ The house accommodation in the town is very good, no houses having been condemned as unfit for habitation. In one or two cases, notably in Gas Street, where the houses were found to be kept in a filthy condition, prompt action was taken and the nuisance rectified.”

BRACKLEY RURAL.—“ My attention has not been called to any case of overcrowding. . . . Plans have been passed for 4 new cottages, and for the alteration of 2 others ; also for a new schoolroom and 2 blocks of new stables.”

BRIXWORTH RURAL.—“ Five new houses have been built. Five old ones were pulled down in Spratton. I am sorry that no labourers' houses have been put up—more are urgently needed. Eight cases of overcrowding have been dealt with.”

CRICK RURAL.—“ Only 2 new cottages have been erected  
 “ in the district during the year, namely in Lilbourne.” It  
 appears also from the Inspector’s report that one insanitary  
 cottage was closed.

DAVENTRY RURAL.—“ One house at Long Buckby I  
 “ condemned as unfit for habitation.”

HARDINGSTONE RURAL.—“ Only one new cottage has been  
 “ built during the year and none have been closed. One case  
 “ of over-crowding has been reported at Hackleton and orders  
 “ given for its discontinuance, also for the proper cleansing and  
 “ repair of the cottage. Two other cottages at Roade have  
 “ also been dealt with for over-crowding.”

MIDDLETON CHENEY RURAL.—“ I am unable to observe  
 “ any improvements in the homes of the working classes,  
 “ which, in the majority of cases, are poor, antiquated, devoid  
 “ of conveniences, and in many cases in a bad state of repair.  
 “ I am not, however, aware that there are any occupied homes  
 “ actually unfit for habitation, neither have any been declared  
 “ permanently so during the past year. Generally speaking there  
 “ is a sufficiency of open space around them, and there have been  
 “ no cases of overcrowding reported in the District. No new  
 “ houses have been erected in the District, although in a few  
 “ there have been structural alterations.”

OUNCLE RURAL.—At Kingscliffe, “ by your direction  
 “ I inspected two cases in the village said to be overcrowded.  
 “ I did not advise that any step be taken to prosecute.”

OXENDON RURAL.—“ The housing accommodation for  
 “ the working classes is good and comfortable as a rule, though  
 “ in some of the villages there is a dearth of cottage property for  
 “ new comers. There is also a sufficiency of airspace as a rule  
 “ about the houses, though in some of the villages the cottages

“are rather close together with very little surrounding accommodation. Only one house has been erected during the year. There are no building Bye-laws, and it is desirable that the Council should have powers in this respect. Under the Housing of the Working Classes Act one house has been closed pending alterations. . . . There has been one case of overcrowding, and one of house unfit for habitation.”

POTTERSPURY RURAL.—“Six cases of overcrowding were dealt with by the Sanitary Inspector, viz., three at Paulerspury, and one each at Potterspury, Yardley Gobion, and Hartwell.”

TOWCESTER RURAL.—“There was only one prosecution under the Public Health Act during the year, and that was in the case of a house kept in such a filthy state as to be likely to engender disease.”

WELLINGBOROUGH RURAL.—“The Inspector reports that ten new houses have been erected during the year, 35 dwellings put in repair, 5 delapidated ones abolished, 4 closed, 3 overcrowding cases and 5 filthy dwellings dealt with. There are a very large number of unoccupied dwellings throughout the district.”

#### EXCREMENT AND REFUSE DISPOSAL.

Although a good deal yet remains to be done in some Districts in regard to the matter of public scavenging, it is plain that considerable advance has been made during the past eight years and that more attention is being paid thereto. Something at last appears to be in progress at Thrapston, and the further provision of Sanitary carts in the Wellingborough Rural District is to be noted. The connection of house drains with new sewerage systems is also advancing steadily in several of the Districts, and I hope that this work will be pushed on during the current year. I should have been glad, however,

if I had been able to record some new scheme, other than those of Kettering and Wellingborough, for the disposal of house refuse by heat; the production of useful clinker is so much more preferable, from the economic point of view, than the mere tipping up of hollow land which is thereby rendered unfit for building purposes. The consideration of this matter is well worth the while of every Urban District, where there is already a fair population and any chance of its increasing.

The following references to the subject in the Reports of the District Medical Officers of Health will be found of interest, and in several instances indicative of improving conditions :—

BRACKLEY BOROUGH.—“ House refuse is removed by “ the Council’s carts.”

HIGHAM FERRERS BOROUGH.—“ The scavenging, which, “ in our present circumstances, is a very important work, “ has been properly managed, and the general cleanliness of “ the town carefully attended to.”

DESBOROUGH URBAN.—“ As practically the whole of the “ closets are connected with the sewer the work of the scavenging “ department is devoted to the collection of house refuse, “ which I am pleased to report is well carried out.”

FINEDON URBAN.—“ Many blockages to sewers on private “ property and much trouble and nuisance has been caused “ by insufficient flushing of water closets, and I am afraid that “ whilst hand flushing is in vogue this will continue to be a “ source of danger as well as annoyance.”

IRTHLINGBOROUGH URBAN.—“ Considerable and, on the “ whole I think, satisfactory progress has been made during “ the year with the connections of properties with the main “ sewer, but, as the Council has resolved that the Sanitary

“ cart shall discontinue to call in certain districts after a specified  
 “ time, I have no doubt greater progress will be made with the  
 “ work of connections during the present year, now that the  
 “ water scheme is complete. Property owners can have no  
 “ excuse except a financial one, for making further delay.  
 “ The scavenging of the town is a large item in the Council’s  
 “ expenditure, so that those who desire ‘ Efficiency with  
 “ Economy ’ and ‘ Value for money,’ should use their most  
 “ earnest endeavours to have the Pail System and its many  
 “ defects abolished, and Water Closets substituted and so bring  
 “ about a reduction of the present large expense.”

KETTERING URBAN.—“ The Refuse Destructor, which  
 “ began work in May, 1904, has dealt satisfactorily with the  
 “ whole of the town’s refuse from the commencement, and has  
 “ shown itself capable of dealing with a much larger quantity  
 “ of refuse than the town at present produces. The con-  
 “ sumption of Electricity for light and power purposes has been  
 “ well taken up since those works were started, and a very  
 “ considerable quantity of the current supplied has been pro-  
 “ duced from the heat generated from the destruction of refuse.”

RAUNDS URBAN.—“ The Scavenging has been well carried  
 “ out during the year by your own men who seem to do their  
 “ work very satisfactorily. House refuse and excrement are  
 “ removed regularly once a week, and twice when necessary,  
 “ by a modern covered cart, the pail system being still in vogue,  
 “ and carried out in a satisfactory manner. There are very  
 “ few ashpits now in the district, they have been replaced by  
 “ modern sanitary corrugated zinc ashbins. About half the  
 “ houses in the town are provided now with water-closets,  
 “ the remainder are pail-closets which can only be converted  
 “ into water-closets after a proper water supply has been es-  
 “ tablished.”

ROTHWELL URBAN.—“ The refuse is at present removed

“ by public scavengers who go round the town at stated times,  
“ taking the refuse away in a cart.”

WELLINGBOROUGH URBAN.—“ House refuse is removed  
“ weekly, and destroyed by incineration.”

GRETTON RURAL.—“ I would again urge upon you the  
“ desirability of abolishing domestic pits and substituting  
“ pails with sanitary dustbins, and an efficient system of  
“ scavenging. If for no other reason, the purity of the water  
“ supply is of sufficient importance to call for the abolition  
“ of this fertile source of contamination.”

MIDDLETON CHENEY RURAL.—“ House refuse is disposed  
“ of on the land and gardens, and excrement in covered-in  
“ Ashpits and Privy Vaults.”

OXENDON RURAL.—“ The excrement disposal is by vaults  
“ and buckets with a few w.c.'s, and these are attended to by  
“ the occupiers. The removal and disposal of house refuse  
“ is attended to by the tenants as required.”

POTTERS PURY RURAL.—“ The district being an agri-  
“ cultural one, house refuse, etc., is generally disposed of  
“ in gardens or on the land, but pail closets are increasing in  
“ certain localities, and are emptied by the public scavenger.”

THRAPSTON RURAL.—At Ringstead, “ a considerable  
“ number of sewerage connections have still to be made. I  
“ hope that you will continue to press the matter.”

WELLINGBOROUGH RURAL.—The Inspector reports that  
“ the scavenging throughout the district has been well done,  
“ and I have received fewer complaints this year than ever  
“ before. New sanitary carts have been provided at Irchester  
“ and Isham.”

## SEWERAGE AND SEWAGE DISPOSAL.

The following extracts from the Reports may be taken as supplementary to my earlier remarks on the progress which has been made to prevent pollution of streams by sewage. They indicate in more detail what is taking place in several of the Districts, and the supervision which is necessary to ensure the satisfactory working of the various systems now in operation :—

BRACKLEY BOROUGH.—“ Drainage and Sewerage:—there  
“ is nothing of note to report ; the system has worked well.”

HIGHAM FERRERS BOROUGH.—“ I must again call your  
“ attention to the unsatisfactory state of the drainage from  
“ Corporation Terrace and Spring Gardens. A new drain from  
“ that property to the sewer in Wharf Lane is an urgent ne-  
“ cessity.”

DESBOROUGH URBAN.—“ The sewers have been periodically  
“ examined by your inspector and, with the exception of the  
“ Union Street sewer, found apparently in good condition.  
“ The Union Street sewer has had to be scraped from time to  
“ time as, owing to the insufficient fall, deposits are liable to  
“ occur and obstruct it. This sewer, to be satisfactory, re-  
“ quires re-laying and providing with automatic flushers,  
“ indeed automatic flushers in connection with the entire  
“ sewerage system would prove of great sanitary benefit,  
“ and in the end a financial success in comparison with the  
“ present method of flushing by means of the cart and hose.  
“ I would also advise that additional sewer ventilators be  
“ erected. Excellent work has been done by your Inspector  
“ in obtaining the proper ventilation of the house drains  
“ in the parish, and in abolishing all bell and D traps. The  
“ work of the Sewage Farm has continued to be carried on  
“ satisfactorily.”

FINEDON URBAN.—“ I am glad to say that most of the  
 “ property in the town is now connected with the main sewer.  
 “ I have still complaints about the nuisance caused by the  
 “ escape of sewer gas from the ventilating shaft on the Station  
 “ Road. His Majesty’s Inspector of Schools has called atten-  
 “ tion to its dangerous proximity to the playground of the  
 “ Boys’ School. I wish your Surveyor could suggest a remedy  
 “ for same. There is, too, still a good deal of sewer gas es-  
 “ caping through the grids covering the manholes. This  
 “ might be remedied by making the coverings airtight. Now  
 “ that there are so many properties connected with the sewer,  
 “ the flushing of the mains will need careful attention. Seventy-  
 “ three closets have been connected to the sewer during the  
 “ year.”

IRTHLINGBOROUGH URBAN.—“ Offensive smells from a  
 “ few of the manholes are still complained of. I would recom-  
 “ mend that an extra ventilating shaft be erected in the imme-  
 “ diate vicinity of the nuisances. The sewers are now auto-  
 “ matically and regularly flushed.”

KETTERING URBAN.—“ The very dry season is also partly  
 “ responsible for the purification of the sewage not having been  
 “ so satisfactory as formerly. But the Council has recognised  
 “ for some time that something further would be required at  
 “ an early date. A deputation from the Sanitary Committee  
 “ has visited several works to see what is being done in other  
 “ places, with a view to advising the Council as to the best  
 “ procedure in the case of their own works. Plans are in hand  
 “ for an extension of the works, sufficient to meet the demands  
 “ now placed on the Council in the way of sewage disposal.  
 “ There is, of course, a larger quantity of sewage to be dealt  
 “ with than when the present works were constructed in 1898,  
 “ and the very small size of the brook, little more than a ditch  
 “ this year, into which the effluent has to flow, complicates  
 “ matters very much.”

RAUNDS URBAN.—“ The sewers have been regularly flushed  
 “ and remain perfectly clean and free from any smell. The  
 “ sewage is treated first by tank treatment and then by broad  
 “ irrigation on the sewage farm which has been extended by  
 “ the addition of two acres laid out since last year. . . .  
 “ Since every one of the manholes in the course of the sewer  
 “ has been hermetically sealed and an extra number of ven-  
 “ tilating shafts have been erected, we have had no bad smells,  
 “ none of the usual outbreaks of septic sore throats, nor diph-  
 “ theria, and no scarlet fever except those cases imported from  
 “ other districts on seven or eight occasions during the year.”

ROTHWELL URBAN.—“ The town was thoroughly re-drained  
 “ some six or seven years ago, and the filter beds are in good  
 “ working order.”

RUSHDEN URBAN.—“ The Sewage Farm and the drainage  
 “ generally is in a satisfactory condition.”

WELLINGBOROUGH URBAN.—“ The drainage of the town  
 “ is good, and the sewage is treated by broad irrigation at  
 “ the Sewage Farm in a satisfactory manner.”

BRACKLEY RURAL.—“ Sewers have been repaired at Kings  
 “ Sutton and Moreton Pinkney, and a new street has been pro-  
 “ perly sewered at Kings Sutton under the Private Street  
 “ Works Act.”

BRIXWORTH RURAL.—“ Church Brampton has been sup-  
 “ plied with a system of sewers and a filtration bed at a cost  
 “ of £650. Scaldwell village sewers have been laid into a new  
 “ system of septic tank, filter, and one rood of land, at a cost  
 “ of £160. These have been found to work extremely well.  
 “ Plans have been prepared for septic tank and filter at Spratton.  
 “ It is to be decided within the next month whether Maidwell  
 “ village is to be sewered partially into a septic tank or no.  
 “ The village of Creaton is now connected with the new sewers.  
 “ The villages of Harleston and Chapel Brampton are recom-

“ mended for an extension of their filtration area. The recom-  
 “ mendations for the sewerage of Hannington are in abeyance.  
 “ Part of Walgrave sewer has been taken up and re-laid, and a  
 “ new manhole has been put in and one ventilator. Alteration  
 “ in the filtration area in Holdenby has been recommended.  
 “ The filtration area of Overstone has been extended. There  
 “ are now 24 distinct filtration beds in the district, which have  
 “ been reported on by the Inspector monthly. . . . During  
 “ the year the County Medical Officer, together with the Chair-  
 “ man and Sanitary Inspector, visited the effluent from all  
 “ filtration beds in the district, also from the highway drains.  
 “ Flushing is carried out by carts once in ten days, at a cost  
 “ of £100 per year.”

CRICK RURAL.—An open ditch along the Barby Road  
 “ which receives some of the drainage slops at Kilsby has been  
 “ piped in, so as to remove the outfall farther from the village.  
 “ A new sewer has been laid at Barby which has abated a fre-  
 “ quently recurring nuisance in another roadside ditch.”

HARDINGSTONE RURAL.—“ The septic tank at Cogenhoe  
 “ is working satisfactorily and prevents the pollution of the  
 “ river from this village, of which complaint had previously  
 “ been made. The connections with private drains have been  
 “ completed at Yardley Hastings, and the brook this year has  
 “ been in a far more satisfactory condition ; the sewage is  
 “ pumped out and distributed on the land, and the scheme  
 “ seems now acting well. A septic tank is about to be construc-  
 “ ted at Great Houghton from plans prepared by Mr. C. Dor-  
 “ man, so that shortly the sewage of this village will also  
 “ undergo purification before reaching the river. The filter  
 “ beds at Roade having become exhausted and having failed  
 “ lately to satisfactorily purify the sewage, new ones are about  
 “ to be constructed.”

MIDDLETON CHENEY RURAL.—“ A new sewer has been

“laid at Middleton Cheney; and others at Aston-le-walls, Chipping Warden, and Upper Boddington have been repaired.”

NORTHAMPTON RURAL.—“The sewage scheme at Duston is working better and there have been no complaints of bad smells arising from it. The effluent from the septic tank at Bugbrooke is also satisfactory, and no pollution of the river now arises from that village. A filtering tank has also been provided for the sewage from the village of Harpole, so that the effluent from that village is also now very much improved.”

OXENDON RURAL.—“The Sewerage and Drainage of the District is quite adequate in most parts of the district. At Ashley it is proposed to add a settling tank, and provide 400 yards of drainage. At the west end of Welford a settling tank is proposed and also to improve the outfall, and, when the Master in Lunacy’s consent has been obtained, a settling tank and outfall at Sulby. The drainage of the district has received every attention, and all parts kept under observation and cleaned out where required. All the larger villages have their settling tanks, which are cleaned out at varying intervals from once a month up to once a quarter, whilst properties not connected with a public system are supervised and cleaned out as required. A sludge cart has been provided for use in emptying and removing the contents of the settling tanks. There have been no complaints of pollution of the brooks and streams during the year. The brook at Braybrooke has been cleaned out very efficiently, and where any sewer discharges into any brooks they are cleaned out as necessary and all have been attended to during the year.”

THRAPSTON RURAL.—“In November, Mr. Lloyd drew attention to the Sewage Disposal Works, which in his opinion were conducted in an inefficient manner, and were a nuisance. I trust the matter will receive due consideration from the

“Thrapston Parish Council. New Sewage Disposal Works  
 “have been made at Great Addington, which will I hope prove  
 “satisfactory. Sewage Works are also about to be started  
 “for Little Addington.”

WELLINGBOROUGH RURAL.—“Several improvements have  
 “been carried out at Irchester, Bozeat, and Earls Barton and  
 “the sewage farms throughout the district are satisfactorily  
 “managed. At Mears Ashby the Parish Council have been  
 “considering a sewage scheme, and I attended some meetings  
 “of the Local Government Engineers, when the plans were  
 “discussed, and afterwards sent back for some alterations,  
 “being considered too expensive for such a small place. The  
 “school premises have been considerably improved, and  
 “new drainage carried out.”

#### RIVER POLLUTION.

The following references, while relating to this subject,  
 have also reference in part to projected works of Sewage  
 Disposal :—

IRTHLINGBOROUGH URBAN.—“The Public Health Com-  
 “mittee of the County Council has complained of the continued  
 “pollution of the Back Brook with sewage matter, which must  
 “necessarily continue so long as the storm drains, which empty  
 “into the brook are allowed to carry sewage as well. This  
 “matter should receive your attention.”

RAUNDS URBAN.—“The notorious Raunds brook, which  
 “has been so much trouble to us for many years now, seems  
 “to be permanently clean and during the whole of the year  
 “has caused no anxiety, and I now hope we have heard the  
 “last of it.”

DAVENTRY RURAL.—“A scheme for preventing river  
 “pollution at Flore has been decided upon; the necessary

“land has been bought, and the scheme will soon be carried  
 “out. Steps are being taken with regard to the Weedon  
 “drainage, and arrangements are being made with regard to  
 “the purchase of the necessary land ; as soon as this is settled,  
 “the scheme will be finally decided on. The pollution of the  
 “river by some sewage at Dodford will soon be stopped, as  
 “the owners of the property are carrying out a scheme.”

GRETTON RURAL.—“It is my duty also to direct your at-  
 “tention to the fact that the discharge of untreated sewage  
 “into the rivers is impermissible and that, at least in those  
 “instances where there is ample and adequate fall, and where  
 “land can be readily secured, the protection of the rivers from  
 “pollution should claim your consideration.”

OUNDLE RURAL.—“I have frequently drawn attention  
 “to the condition of Barnwell Brook, which is usually very  
 “foul. Last year a channel about 3 feet wide was dug down  
 “the centre with the idea of making the flow of water more  
 “constant and increasing the depth. I expect this will give  
 “a certain amount of improvement, but of course will not help  
 “when there is no water as is often the case for months together  
 “in the summer. The Cesspits have been cleaned out and  
 “the drainage improved.”

THRAPSTON RURAL.—“A complaint was made by the  
 “Council County that the river was polluted by the sewage  
 “from Denford. Plans have accordingly been made and will  
 “shortly be taken in hand to remedy this.”

#### LODGING-HOUSES.

In the Borough of Daventry it appears that the common  
 lodging houses have been “regularly inspected and found to  
 “be well kept,” while in the Potterspury Rural District,  
 “considerable sanitary improvements have been made at

“ the Common Lodging-house at Old Stratford, and steps are  
“ being taken to have it registered.”

The Medical Officer of Health for the Kettering Urban District also reports as follows :—“ There is only one licensed  
“ Lodging House in this town. It has always been found  
“ when inspected clean, not over-crowded, and apparently  
“ well conducted. The managers have always communicated  
“ with your officers when they had the least suspicion of any  
“ infectious illness, but there has been no disease of that charac-  
“ ter present during the past year.”

#### SLAUGHTER-HOUSES.

There is a good deal more information given as to slaughter-houses and their supervision now than there was formerly, and I am glad to know that their condition generally in many of the Districts is very considerably improved. The importance of complete and effective supervision over the meat supply is so great, that there can be no justifiable ground for neglect of the places where it is prepared to become the food of man. The following records indicate that there is fair general supervision throughout the County :—

BRACKLEY BOROUGH.—“ Slaughter-houses, all inspected,  
“ condition satisfactory.”

DAVENTRY BOROUGH.—“ Regularly inspected, and found  
“ to be well kept.”

HIGHAM FERRERS BOROUGH.—“ The slaughter-houses  
“ have been regularly visited, and found to be kept in a sanitary  
“ condition.”

DESBOROUGH URBAN.—“ The slaughter-houses have been  
“ visited and found clean and satisfactory.”

FINEDON URBAN.—“ All the Slaughter-houses . . . have  
“ been frequently inspected, and are generally in a satisfactory  
“ condition.”

IRTHLINGBOROUGH URBAN.—Slaughter houses “ have been  
“ inspected periodically during the year, and found satis-  
“ factory.”

OUNCLE URBAN.—“ These have been regularly inspected,  
“ and found clean and in good order.”

RAUNDS URBAN.—“ The regulations regarding Slaughter  
“ Houses have been well carried out, and periodical inspections  
“ have been made by the sanitary inspector during the year.”

ROTHWELL URBAN.—“ These have been visited from time  
“ to time and found in a satisfactory condition.”

WELLINGBOROUGH URBAN.—“ The slaughter-houses have  
“ been visited regularly, and the condition has been found good.  
“ The requirements have been attended to properly, and there  
“ does not seem to be any necessity for alterations in the system.”

BRACKLEY RURAL.—“ I have visited the . . . Slaughter-  
“ houses and found their condition satisfactory, with one or  
“ two exceptions in which notices have been served to remedy  
“ the faulty conditions.”

CRICK RURAL.—The Inspector reports that “ there are  
“ six recognised slaughter-houses in the district. Frequent  
“ inspections were made, and the premises generally found in  
“ a satisfactory condition.”

EASTON-ON-THE-HILL RURAL.—“ Slaughter-houses have  
“ been inspected.”

MIDDLETON CHENEY RURAL.—The slaughter-houses “ have  
“ been found to be in a satisfactory condition. Two nuisances

“ have been dealt with by the Inspector . . . which have  
“ been remedied.”

THRAPSTON RURAL.—“ There are 18 Slaughter-houses,  
“ one of which was found to be in an unsatisfactory condition.  
“ This is to be pulled down, plans for a new one having been  
“ presented and passed.”

WELLINGBOROUGH RURAL.—“ Notices issued by the Board  
“ of Agriculture and Fisheries were supplied to Butchers and  
“ Slaughterers in the district, showing and explaining the symp-  
“ toms of Anthrax. Slaughter houses have been visited  
“ and were found well kept and clean with one exception ;  
“ this is now in order.”

#### DAIRIES, COWSHEDS, AND MILK-SHOPS.

The supervision of the Milk supply of the County is happily receiving a good deal more attention than it did eight years ago. There are still, however, some Districts which have not yet got Regulations in operation, and in more than one instance the Local Government Board has commented on the absence of reference to Dairies, Cowsheds, and Milk-shops in the Annual Reports of the District Medical Officers of Health, from whom supplementary reports have now been received. I have constantly and repeatedly urged the necessity for watchfulness over the condition of the places where cattle may be housed, and their milk exposed for sale, and I know of no satisfactory reason for any District in this County being without proper regulations either in its own interest or that of adjoining communities. A matter of no less importance is, in my opinion, the regular inspection of dairy cattle by competent persons. This may be effectively and economically provided for by the combination of adjoining districts for the purpose of appointing a Veterinary Surgeon as Inspector, as is done by Kettering and its neighbours ; in the absence of such action I can only hope that the duty of inspecting cattle will be placed upon the

County Council as the Central Authority locally interested in the matter. In this connection, I desire to call particular attention to the utility of such records as are provided by the Veterinary Inspector to the Kettering combination of Districts, and the extent of public protection they indicate.

The following references to this subject will probably be found of interest :—

BRACKLEY BOROUGH.—“ There are four registered, all of which are in good condition.”

DAVENTRY BOROUGH.—“ Regularly inspected, and found to be well kept.”

HIGHAM FERRERS BOROUGH.—“ The dairies and cowsheds have also been under regular inspection, and no cause has been found for complaint.”

FINEDON URBAN.—“ All the . . . Cowsheds and Dairies have been frequently inspected, and are generally in a satisfactory condition. ”

IRTHLINGBOROUGH URBAN.—“ Have been inspected periodically during the year, and found satisfactory.”

KETTERING URBAN AND RURAL, AND DESBOROUGH AND ROTHWELL URBAN.—Report of the Veterinary Inspector (Mr. Trevor F. Spencer, M.R.C.V.S.) :—

“ I beg to state that during the past year I have made inspections of premises occupied by registered Cow Keepers to the number of 315, and an individual examination, with especial regard to the condition of their udders, of 2,447 Milking Cows.

“ In regard to the sanitary state of the Cowsheds in

“spected the following conditions were found to prevail,  
“viz.,

“ Good or Satisfactory in .. ..	271 cases.
“ Unsatisfactory or Bad in .. ..	40 „
“ Relinquished business during the year	4 „
	—
Total	315
	—

“ It will be seen therefore that the sanitary state of the  
“ Cowsheds, in the period covered by the Report, was un-  
“ satisfactory or bad in 12.69 cases per cent.

“ A separate inspection of every Cow contributing to the  
“ public Milk Supply, and with especial regard to the con-  
“ dition of its udder has been made with the following re-  
“ sults :—

“ No. of Cows inspected .. ..	2447
“ No. of abnormal Udders .. ..	79 or 3.22%

“ Of these deranged udders only 17 or .69 per cent were  
“ in a condition calculated to render the Milk harmful to  
“ persons consuming it in an uncooked state, the remaining  
“ 62 or 2.53 being cases of atrophied quarters, teat obstruction,  
“ or other benign affections, which would have no effect on the  
“ quality of the Milk.

“ Of the 40 Cowsheds the state of which was bad or un-  
“ satisfactory, the conditions met with were as follows, viz. :—  
“ Improper drainage and unsuitable flooring (17 cases), over-  
“ crowding (4), insufficient light (5), want of cleanliness (8),  
“ absence of ventilation (2), presence of Swine under the same  
“ roof (2), Fowls roosting above the Cows (1), condemned as  
“ detrimental to the health of the animals (1).

“ The absence of any water supply, which has always been  
“ an unsatisfactory feature amongst a number of the Occupiers,

“ has not been included on account of the general shortage  
 “ of water everywhere.

“ Of the 17 cases of deranged udders, the Milk from which  
 “ would be unfit for human consumption, 15 of these were due  
 “ to acute mastitis or variola, and 2 to Tubercular disease  
 “ of the gland. In the former cases the use of the Milk, pending  
 “ recovery, was forbidden, and in the latter the Cows were  
 “ promptly banished from the sheds, and slaughtered or other-  
 “ wise disposed of.

“ With regard to the general conduct of the Dairy business  
 “ in your districts, I am bound to say that, notwithstanding the  
 “ Regulations in force, there is still much to be desired. The  
 “ reasons for this are, firstly—that the provisions of the Dairies,  
 “ Cowsheds, and Milkshops Order are totally inadequate for  
 “ the purpose of ensuring a pure supply of Milk, and, secondly—  
 “ because Milk is far too cheap, and cannot be produced at  
 “ its present price in a manner which would practically ensure  
 “ its reaching the consumer in an uncontaminated state.  
 “ The directions in which, in my opinion, the regulations  
 “ require amendment are mainly as follows :—

“ 1.—Every Cowshed should be provided with a ceiling  
 “ and with hard walls so that the whole interior could be  
 “ effectually limewashed.

“ 2.—The flooring to be of a standard pattern of im-  
 “ pervious material and provided with a drain channel  
 “ of prescribed width and depth.

“ 3.—A supply of water to be connected to the in-  
 “ terior of each shed.

“ 4.—The provision of ‘ in-let ’ as well as ‘ out-let ’  
 “ ventilators.

“ 5.—The adoption of a uniform system of cleansing  
 “ by which all manure should be removed and the floors  
 “ flushed with water immediately before milking com-  
 “ mences.

“ 6.—The provision of a minimum air space of  
 “ 800 cubic feet for each cow, regardless whether or not  
 “ the animals are turned out to grass for a portion of each  
 “ day.

“ 7.—The adoption of the Tuberculin test in all  
 “ Dairies from which the public Milk supply is obtained,  
 “ the dismissal of all re-acting animals and the registra-  
 “ tion of all those which do not re-act.

“ 8.—Provisions by which the sale of Milk, pending  
 “ recovery, of all cows having any affection of the udder  
 “ which might render the Milk harmful to consumers,  
 “ would be forbidden.

“ The adoption of regulations such as these would, of  
 “ course, materially increase the cost of Milk to the consumer,  
 “ but none of them are impracticable, and the whole, I believe,  
 “ to be essential if the disease-carrying properties of Milk  
 “ are to be rendered as impotent as possible.

“ When it is remembered that the wholesale price of Milk  
 “ during the summer months is often as low as sixpence per  
 “ gallon (including the cost of delivery), it follows that an  
 “ insufficiency of labour is employed in its productions, the  
 “ result being that the cows are hurriedly milked before any  
 “ attention is paid to the sanitary condition of the animals  
 “ or their surroundings.

“ Another great drawback to the satisfactory working  
 “ of the present regulations is that they are not universal,  
 “ but permit cowkeepers living outside the district in which

“ the orders are in force, to compete with those who are compelled to comply with them.”

OUNDLE URBAN.—“ These have been regularly inspected and found clean and in good order.”

RAUNDS URBAN.—“ The state of all Dairies and Cowsheds is very satisfactory, and the necessary improvement had only to be made in one case, which was paved, drained, and put in a perfectly sanitary condition.”

ROTHWELL URBAN.—The cowsheds are inspected by the Veterinary Surgeon to the Council. None of the infectious cases notified were traceable to the milk supply.”

WELLINGBOROUGH URBAN.—“ The Dairies, Cowsheds, and Milkshops have all been under regular supervision, and were generally satisfactory. The milk supply to the town is good.”

BRACKLEY RURAL.—“ There are no regulations in force in the district under the Dairies, Cowsheds, and Milkshops Order of 1885 ; these have, however, been duly registered, and have been inspected at the time of registration.”

BRIXWORTH RURAL.—“ 68 Dairies and Cowsheds have been visited during the last six months. Many nuisances have been reported, and we hope that these will be abated within the next three months.”

CRICK RURAL.—The Inspector reports that “ the register of Cowkeepers, dairymen and purveyors of milk has been revised. The cowsheds have been inspected and with a few exceptions were found to be fairly satisfactory. Three persons have been registered during the year. The number of persons now registered is 10.”

DAVENTRY RURAL.—“ During the year 1905, these have been frequently visited by myself and the Sanitary Inspector ;

“ as a whole I found them fairly clean and satisfactory. Of  
 “ course, in a country district, the cows are mostly in the fields,  
 “ and except in winter spend very little time in the cowsheds ;  
 “ this open air life is undoubtedly the most healthy condition  
 “ for keeping milking cows. In cases where I have found any  
 “ defects, either in light, drainage, or ventilation, the owners  
 “ readily agreed to have my suggestions carried out. I have  
 “ directed the Sanitary Inspector, during the present year,  
 “ to make a careful inspections of all Dairies, Cowsheds, and  
 “ Milkshops in the District, with a view of bringing them to  
 “ a higher standard.”

EASTON-ON-THE-HILL RURAL.—“ Dairies and Cowsheds  
 “ have been inspected.”

HARDINGSTONE RURAL.—“ The Dairies and Cowsheds are  
 “ periodically inspected, and a considerable improvement in  
 “ all of them has taken place recently.”

MIDDLETON CHENEY RURAL.—“ Sources of Milk supply  
 “ are, on the whole, well kept.”

NORTHAMPTON RURAL.—“ The dairies and cowsheds have  
 “ been periodically visited, and twice a year a detailed report  
 “ is made on them by the Sanitary Inspector to your Council.  
 “ Since this arrangement has been in force there is no doubt  
 “ that a vast improvement in this class of building has taken  
 “ place in your district.”

OUNDLE RURAL.—“ The Dairies and Cowsheds have also  
 “ been inspected and reported on.”

OXENDON RURAL.—“ During the year model Bye-Laws  
 “ under the Dairies and Cowsheds Order have been adopted.  
 “ . . . . The appointment of a Veterinary Inspector of Meat  
 “ and Milk ” is recommended.

POTTERSPURY RURAL.—It is reported by the Sanitary Inspector that the premises registered under the Dairies, Cowsheds, and Milkshops Order were periodically inspected.

THRAPSTON RURAL.—“The eleven registered Cowsheds  
“are in fair condition. Improvements have been effected  
“in three instances, and two more are about to be drained and  
“repaired. Mr. Lloyd adds, ‘I frequently inspect these cow-  
“sheds. I have also inspected premises where milk is sold  
“in small quantities, but which are not liable for registra-  
“tion.’”

TOWCESTER RURAL.—“No action has been necessary under  
“the Dairies, Cowsheds, and Milkshops Order.”

WELLINGBOROUGH RURAL.—The Inspector reports that  
the “Dairies, Cowsheds, and Milkshops have been regularly  
“inspected. Improved drainage has been laid, and new  
“cowsheds have been erected at Great Harrowden. Improve-  
“ments have also been carried out at Church Farm, Grendon,  
“and Waterloo Farm, Easton Maudit.”

#### FACTORIES AND WORKSHOPS (BAKEHOUSES).

The very important work of supervision over workshops, which was placed locally on Medical Officers of Health by the provisions of the Factory and Workshops Act, 1901, continues to be well carried out in this County, and the detailed Tables relating to them and the Outworkers will be found at the end of this Report. It is evident too from the extracts made from the Reports of the Medical Officers of Health that a very great deal more attention is paid to the conditions under which work is carried on than was the case before the passing of the Act referred to. The increase in the accommodation of factories with a consequent lessening of workers in small outhouses adjoining their homes, has had an undoubted influence for

good on the health of the community in putting the workers under better conditions during their times of employment. The provision of sanitary conveniences in the factories appears to be generally adequate, but in some places difficulty in having them kept in good usable condition is evidently experienced. This fault appears to lie with the workers, however, rather than with their employers. It is satisfactory to note that the number of underground bakehouses is very small, and that the bakehouses generally are spoken of as being in a satisfactory state.

The following extracts from the Reports of the District Medical Officers of Health will be found of great interest in bearing out the foregoing statements, in so far as their respective districts are concerned :—

BRACKLEY BOROUGH.—“ Bakehouses all in good order. “ There are fifteen workshops on the Register, they have been “ inspected and found to comply with the conditions of the “ Act.”

DAVENTRY BOROUGH.—“ Workshops, Workplaces, and “ Bakehouses. These have all been inspected during the year, “ and there is no need to make further reference to them “ than is to be found on the special table attached to this re- “ port.”

HIGHAM FERRERS BOROUGH.—“ I have visited the various “ factories with the Sanitary Officer, and where defective “ sanitary conditions were found to exist the necessary instruc- “ tions were given for their removal; The Workshops and “ Homeworkers’ premises have been frequently inspected, and “ lists of outworkers have been supplied. In all cases where “ insanitary conditions have been found to exist there “ has been no difficulty in getting the necessary alterations “ carried out.”

DESBOROUGH URBAN.—“ In company with your Surveyor

“ I have made inspections of the factories and workshops, and  
 “ the only fault that had to be found was in respect of the dirty  
 “ state of the w.c. pans, and the bad ventilation of the work-  
 “ rooms. As regards the w.c. pans the nuisances complained  
 “ of were abated on communicating with the manufacturers.  
 “ It would be well to prevent these nuisances occurring, and  
 “ manufacturers might go far towards ensuring this by putting  
 “ up notices warning their employees against causing such nuis-  
 “ ances. The ventilation of the factories I found very un-  
 “ satisfactory. The side ventilators were all closed, and I  
 “ was told that if these were opened the workmen would in-  
 “ sist on closing them. The fact was demonstrated during our  
 “ visit to one factory. The Inspector opened a ventilator,  
 “ but a workman closed it almost immediately afterwards.  
 “ It is to be regretted that workpeople do not better appreciate  
 “ the importance of fresh air. With large numbers working  
 “ continuously in one room for some hours, and with the fumes  
 “ and dust inseparable from the manufacture of shoes, the air  
 “ in a confined space quickly becomes laden with impurities,  
 “ and the constant inhalations of such air is a positive danger  
 “ to health. Indeed there is good reason to believe that some  
 “ of the most fatal maladies owe their origin chiefly, if not  
 “ entirely, to the habitual breathing of vitiated air. It is to  
 “ be noted that the manufacturers have made adequate pro-  
 “ vision for the ventilation of their premises ; the fault lies  
 “ with the workmen themselves in neglecting to make use of  
 “ the ventilators. I would earnestly appeal to them hence-  
 “ forward to have some regard for their health, and to avail  
 “ themselves of every facility for breathing pure air whilst  
 “ performing their daily task. All the bakehouses, with one  
 “ exception, were found in a satisfactory condition, and in  
 “ the one case the necessary lime-washing was at once done  
 “ on notice from the Inspector.”

FINEDON URBAN.—“ I have to report that the Factories,  
 “ Workshops, and Home-workers’ premises have been fre-

“quently inspected, and it has not been necessary to send  
 “any written notices of complaints, and there have been no  
 “prosecutions under the Act. Any demands of your Sanitary  
 “Inspector have been readily acceded to.”

IRTHLINGBOROUGH URBAN.—“Periodical inspection of  
 “factories, workshops, and workplaces have been made by  
 “your Inspector and myself during the year, and I am again  
 “pleased to be able to report that the requirements of the Act  
 “as regards ventilation, air space, and general cleanliness,  
 “have been well carried out. The sanitary conveniences in  
 “some of the factories have been improved, but there is still  
 “room for improvement in others. During the year, Part III.  
 “of the Public Health Amendment Act, 1890, was adopted,  
 “and is now in force. Section 22, relating to the sufficiency  
 “and efficiency of sanitary conveniences in factories and work-  
 “shops is important, and I wish to draw the attention of the  
 “Council to the fact that no standard has yet been laid down.  
 “This should be done. Bakehouses have been regularly in-  
 “spected, and found satisfactory. There are no underground  
 “bakehouses. The abstract of the Factory and Workshops  
 “Act has been found affixed in all factories, and outworkers’ lists  
 “regularly received. The number of outworkers is rapidly  
 “diminishing, viz., 58 in 1905, compared with 160 in 1902,  
 “100 in 1903, and 75 in 1904.”

KETTERING URBAN.—“In the details supplied in your  
 “Inspector’s Report you will observe that there has been con-  
 “siderable additional work thrown on your Officers by the  
 “alterations in the Factories and Workshops Act, but I believe  
 “that work has been properly carried out.” From this  
 Report it appears that water was laid on to closets in one  
 Factory and 3 Workshops, and 87 nuisances were abated in  
 Factories in connection with sanitary conveniences. Further-  
 more, 655 visits were paid to Workshops, resulting in one case

of overcrowding being abated, and 10 workshops being white-washed.

OUNCLE URBAN.—“ The workshops in the Schedule have  
“ been visited and found satisfactory as to lighting, air-space,  
“ ventilation, and sanitation,”

RAUNDS URBAN.—“ There are no underground bake-  
“ houses in the district, and all bakehouses in the town are  
“ thoroughly clean, well ventilated, and lighted, and the  
“ trade carried on under the most favourable conditions.  
“ Factories, workshops, and workplaces have been regularly  
“ inspected during the year by Mr. Yorke and myself, and,  
“ with the exception of two faults, which have been remedied,  
“ we found that all the requirements of the Factories and Work-  
“ shops Act and Public Health Act were carried out as regards  
“ air-space, ventilation, sanitation, sanitary conveniences, etc.  
“ It has not been necessary to take any action to enforce  
“ the removal of any nuisance during the year. Under the  
“ Factories and Workshops Act we have in this district 21  
“ boot factories, 7 workshops, and 5 bakeries. Section 22 of  
“ the Public Health Acts (Amendment) Act has been adopted  
“ in the district, and a standard of sufficiency and suitability  
“ of sanitary accommodation has been fixed and enforced,  
“ namely, 20 for males and 16 for females. Lists of outworkers  
“ (sec. 107) for homeworkers have been received twice during  
“ the year, namely 26 lists with 401 names and addresses of  
“ outworkers, the outworkers, however, are very few when  
“ compared with the number working at home in former years,  
“ the greater number gradually drifting into the factories,  
“ a fact which I consider to be much to their own advantage  
“ as far as their health is concerned.”

ROTHWELL URBAN.—“ All the factories and as many of  
“ the workshops as could be found out have been inspected.  
“ In nearly all cases they were found to be in a satisfactory

“ condition, and in the few cases where defects were pointed  
 “ out these have been remedied. No case of infectious disease  
 “ was notified from any of the houses of the outworkers.  
 “ Bakehouses :—These were all found to be satisfactory on  
 “ visiting the premises. We have no underground bakehouses  
 “ in the town.”

RUSHDEN URBAN.—“ Forty-two factories, 150 workshops,  
 “ and 253 home-workers’ premises have been visited at inter-  
 “ vals during the year and found to be satisfactory. I have  
 “ always found the manufacturers and occupiers of Work-  
 “ shops, etc., willing to carry out any suggestions that have been  
 “ recommended, and in no instance have extreme measures  
 “ been found necessary.”

WELLINGBOROUGH URBAN.—“ The requirements of the  
 “ Factory and Workshops Act of 1901 have been duly carried  
 “ out, and where notices have been served for improvements  
 “ they have been efficiently done. There were 300 inspections  
 “ of Workshops and Laundries, 20 of Workplaces, and 10  
 “ Homeworkers’ premises. The defects found were 32 want  
 “ of cleanliness, 3 want of ventilation, 1 want of drainage of  
 “ floors, 9 unsuitable sanitary accommodation. In all cases  
 “ the defects were remedied. There were no prosecutions.  
 “ Matters notified to H.M. Inspector of Factories were, Failure  
 “ to affix Abstract of Factory and Workshops Act, 3 ; Under-  
 “ ground bakehouses in use at the end of 1905, 2. Fourteen  
 “ lists of Homeworkers and of 202 Outworkers were received,  
 “ 5 addresses were forwarded to other Authorities and 4 received,  
 “ and one case of Infectious Disease was notified in a Home-  
 “ worker’s premises and work was prohibited. The total  
 “ number of Workshops on the Register is 160.”

BRACKLEY RURAL.—“ I have visited the Bakehouses  
 “ . . . and found their condition satisfactory, with one or  
 “ two exceptions in which notices have been served to remedy

“ the faulty conditions. I have inspected the workshops still  
 “ remaining on the original list, and found that they fulfilled  
 “ the required conditions. The district is purely agricultural  
 “ and rural, and such as there are only come within the letter  
 “ and not the spirit of the Factory Act of 1901.”

BRIXWORTH RURAL.—“ Factories and Workshops are kept  
 “ up to the required standard. No change has been made  
 “ during the year.”

CRICK RURAL.—The Inspector reports that “ the work-  
 “ shops have been inspected, and in the case of all bakehouses  
 “ notices to limewash every six months were issued and duly  
 “ complied with. The number of workshops, including bake-  
 “ houses, now on the list is 24.

DAVENTRY RURAL.—“ I spent a good deal of time under  
 “ the Factory and Workshops Act, 1901, in visiting the  
 “ factories, workshops, and workplaces in the District, but in  
 “ a purely Rural District these are not numerous. I found  
 “ them on the whole satisfactory, and the various sections of  
 “ the Act complied with.”

EASTON-ON-THE-HILL RURAL.—Apart from the inspection  
 of Bakehouses, “ no action has been taken or was considered  
 “ necessary under the Workshops and Factory Act.”

HARDINGSTONE RURAL.—“ What few Factories and Work-  
 “ shops exist in this district are regularly visited, they are all  
 “ clean and in good order. The bakehouses are also clean,  
 “ only one complaint has been made of them and that has been  
 “ rectified.”

KETTERING RURAL.—“ Mr. Davey, your new Inspector,  
 “ was, as I have stated, at a great disadvantage in taking up  
 “ the work without any records from his predecessor; but  
 “ he has worked hard to become acquainted with details,

“ and the Factory and Workshops Act will receive attention  
“ very shortly.”

MIDDLETON CHENEY RURAL.—“ There are no Factories,”  
but “ public bakehouses have been found to be in a satisfac-  
“ tory condition.”

NORTHAMPTON RURAL.—“ A return is given as to the work  
“ done by the Sanitary Inspector under the Factories and  
“ Workshops Act. There are only two very small factories,  
“ and the workshops are usually small, isolated buildings  
“ in which two or more members of the family work at boot-  
“ making. They are regularly visited, and in a favourable  
“ condition ; it is seldom that a complaint can be made of them.  
“ The bakehouses are clean and are kept regularly whitewashed ;  
“ there are no underground bakehouses.”

OUNDLE RURAL.—“ There is one Factory Laundry and one  
“ Workshop Laundry in the District, which are reported as  
“ satisfactory. The bakehouses have been regularly inspected,  
“ and found satisfactory.”

OXENDON RURAL.—“ With regard to Section 132 of the  
“ Factory and Workshops Act, 1901, I beg to report again that  
“ there are no Factories or Workshops within the District and  
“ no underground bakehouses, but a proper list of the Bake-  
“ houses is duly kept, all of them being of the Retail Bake-  
“ house Workshop class. Proper inspections of the premises  
“ have been made, and sanitary requirements have been carried  
“ out with reference to them. The keeping of lists of Out-  
“ workers has been duly performed, and notices received from  
“ other Councils as required. There are fourteen Bakehouses  
“ and twenty-eight Homeworkers, and two visits and inspec-  
“ tions have been paid to each of them. One case of over-  
“ crowding was found and remedied, and with this exception  
“ there were no other matters to deal with. There are twelve

“ outworkers at Braybrooke, three at East Farndon and thirteen at Welford.”

POTTERSPURY RURAL.—“ There is only one underground  
“ bakehouse in the district, but it has been certified, as the  
“ provisions of clause 4, section 101, of the Factory and Work-  
“ shops Act, as regards construction, light, and ventilation,  
“ have been enforced.” In regard to the three local factories  
it is reported that “ these factories are kept in a clean state,  
“ have no wet floors, are free from effluvia arising from any  
“ drain, water closet, etc., are not overcrowded, are properly  
“ ventilated, and have suitable sanitary accommodation,  
“ No home work is given out, and an abstract of the Act is  
“ affixed where required, by section 133. Provision is also  
“ made for safety from fire.”

THRAPSTON RURAL.—“ The number of Shoe Workshops  
“ which I reported last year as being closed have been reopened.  
“ There are now some 102 workshops and ‘work-places’ in use,  
“ A large majority of these employ only two or three hands.  
“ There are also two factories. One hundred and thirty-nine  
“ visits have been paid during the year. Nearly all were re-  
“ ported as clean and in good condition. Where orders were  
“ given for whitewashing and cleansing they were complied  
“ with without difficulty. A large Workshop for the manu-  
“ facture of Horse Collars has been erected in Islip. Mr.  
“ Lloyd, the Sanitary Inspector, reports there are 17 Bakehouses  
“ which are all in good order.”

TOWCESTER RURAL.—“ As required by the Factory and  
“ Workshops Act, I have visited various Workplaces in the  
“ district and found nothing necessitating legal action. . . .  
“ Section 22 of the Public Health Acts (Amendment) Act  
“ of 1890, dealing with the provision of sufficient sanitary  
“ conveniences in the Factories, has not been adopted by the  
“ District Council.”

WELLINGBOROUGH RURAL.—The Inspector reports that  
 “ Outworkers’ lists were received from all the manufacturers  
 “ in the district, but, while the greater part of the manu-  
 “ facturers forward lists most willingly, there remain a few from  
 “ whom it is a lot of trouble to get the lists. These lists should  
 “ be forwarded on or before the first day of February and the  
 “ 1st day of August in each year. The total number em-  
 “ ployed as outworkers in the district is 1,177, viz., 806 men  
 “ and 371 women. In 1904, 912 men and 255 women were  
 “ employed. In 1903, 863 men and 421 women, and in 1902,  
 “ 930 men and 520 women. All Factories and Workshops  
 “ have been inspected at intervals, and were found satisfactory  
 “ with a few exceptions, and in these instances the defects  
 “ were at once righted. The workers whose families were noti-  
 “ fied as suffering from infectious disease have been prohibited  
 “ from taking in work at home, while many employed in fac-  
 “ tories were requested to take lodgings rather than return  
 “ to infected dwellings. Many very readily complied with  
 “ our request. There has been no case complaint re-  
 “ garding cleanliness or overcrowding in any of the workshops,  
 “ and the conditions under which homework is done is improv-  
 “ ing, but, in my opinion, when women are working at boot-  
 “ making and upper-closing their homes and children are very  
 “ often neglected. Bakehouses have been visited and in-  
 “ spected, and were found well kept and clean, with one ex-  
 “ ception—this was at once attended to.”

#### FOOD INSPECTION.

Only a very small amount of food was seized as being unfit for human consumption ; but I am glad to be able to report that there is a fair measure of vigilance in many of the Districts over the food which is exposed for sale. The following references to this subject appear in the Reports :—

DESBOROUGH URBAN.—“ On no occasion has it been found  
 “ necessary to condemn food.”

FINEDON URBAN.—“ It has not been necessary to condemn any article of food exposed for sale.”

KETTERING URBAN.—“ The extra powers conferred on your Officers by the Kettering Improvement Bill proved specially useful on one occasion, when ice-creams were found to be made in very unsuitable premises, although no prosecution took place.” From the Inspector’s report, it also appears that “ four boxes of herrings, 1 box of sprats, 2 carcasses of sheep, and 15 baskets of strawberries, being found unfit for food, were condemned and destroyed.”

WELLINGBOROUGH URBAN.—“ The Markets have been visited each Market Day, and nothing was found unfit for food.”

POTTERSPURY RURAL.—“ No case under this heading was reported during the past year.”

WELLINGBOROUGH RURAL.—The Inspector reports that “ there has been no seizure under the Food and Drugs Act.”

#### CEMETERIES.

The only reference to this subject is by the Medical Officer of Health for the Raunds Urban District, who says that “ the next subject of great importance which I hope to bring before you is the question of a new cemetery for the district, and this question I mean to bring before you at no distant date.”

#### OFFENSIVE TRADES.

There are not many offensive trades in the county, and there are few which are so situated as to give rise to nuisance in the districts where they are situated. In past years, however, there have been many complaints of smell from certain works

in the Hardingstone Rural District, and it is satisfactory to learn now that "the smell from the fellmongering business at Rush Mills has been less frequently perceptible, though at times it is unpleasant, and the new works prevent the pollution of the river that formerly happened."

#### BYE-LAWS.

In supplement to my remarks in an earlier part of this Report on the subject of Rural Bye-laws, the following references to the subject will be found interesting :—

CRICK RURAL.—" Building Bye-Laws for the whole of the Crick District as well as for Crick, where they have been in operation for many years back, have been carefully considered by the Council and have been forwarded to the Local Government Board for approval. A resolution has also been passed, which is now under the consideration of the Local Government Board recommending the adoption of Bye-Laws for Slaughterhouses for the other parishes in the District as well as for Crick because, although there are only 4 slaughterhouses in the district outside Crick, the Council has no special jurisdiction over them beyond the abatement of nuisance, and would of course be unable to control the erection of or to license any new slaughterhouses outside Crick."

OXENDON RURAL.—" In conclusion I would recommend to the consideration of the Council the need of Bye-Laws for New Buildings."

CHARLES E. PAGET,

County Medical Officer of Health.

County Hall, Northampton,

May, 1906.

## LIST OF DISTRICT MEDICAL OFFICERS OF HEALTH FOR 1906.

DISTRICT.	MEDICAL OFFICER OF HEALTH.	RESIDENCE.
<b>URBAN :—</b>		
Brackley (Borough)	J. S. Fenton, M.D., D.P.H.	Brackley
Daventry (Borough)	C. E. Oldacres, M.R.C.S.	Daventry
Higham Ferrers (Borough)	J. Crew, M.R.C.S., J.P.	Higham Ferrers
Desborough	H. Gibbons, M.D.	Desborough
Finedon	H. Burland, M.R.C.S.	Finedon
Irthlingborough	W. Robb, M.B.	Irthlingborough
Kettering	J. W. Dryland, M.R.C.S., J.P.	Kettering
Oundle	B. R. Turner, M.B.	Oundle
Raunds	W. Mackenzie, L.R.C.P.	Raunds
Rothwell	J. More, M.D.	Rothwell
Rushden	F. H. Morris, M.D.	Wellingborough
Wellingborough	W. W. Clark, M.D., J.P.	Wellingborough
<b>RURAL :—</b>		
Brackley	G. N. Stathers, M.R.C.S., D.P.H.	Brackley
Brixworth	E. M. Knott, M.R.C.S.	Brixworth
Crick	G. Wilson, M.D., D.P.H.	Warwick
Daventry	A. R. Darley, M.D.	West Haddon
Easton-on-the-Hill	T. P. Greenwood, M.R.C.S.	Stamford
Gretton	J. E. O'Connor, M.B., D.P.H.	Kirby Muxloe, Leicester
Hardingstone	G. H. Percival, M.B.	Northampton
Kettering	J. W. Dryland, M.R.C.S., J.P.	Kettering
Middleton Cheney	J. I. Johnson, L.R.C.P.	Sulgrave, Banbury
Northampton	G. H. Percival, M.B.	Northampton
Oundle	C. N. Elliott, M.B.	Oundle
Oxendon	T. A. Durrant, M.R.C.S.	Market Harborough
Potterspury	T. S. Maguire, M.D.	Stony Stratford
Thrapston	C. N. Elliott, M.B.	Oundle
Towcester	C. Simpson, M.B.	Towcester
Wellingborough	F. H. Morris, M.D.	Wellingborough

SUMMARY OF REPORTS OF THE DISTRICT  
MEDICAL OFFICERS OF HEALTH.

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
<b>BRACKLEY BOROUGH.</b>	<ul style="list-style-type: none"> <li>(a) High general, but low infantile, mortality.</li> <li>(b) Epidemics of Whooping Cough and Measles, and prevalence of Scarlet Fever.</li> <li>(c) Public water supply in need of augmentation.</li> <li>(d) Great want of cheap cottages.</li> </ul>
<b>DAVENTRY BOROUGH.</b>	<ul style="list-style-type: none"> <li>(a) Rather high general, but low infantile, mortality.</li> <li>(b) Considerable prevalence of Measles and Influenza.</li> <li>(c) Water supply and drainage satisfactory.</li> </ul>
<b>HIGHAM FERRERS BOROUGH.</b>	<ul style="list-style-type: none"> <li>(a) Low general, but high infantile, mortality.</li> <li>(b) Considerable prevalence of Scarlet Fever and small outbreak of Enteric Fever, but no mortality therefrom.</li> <li>(c) Completion of reservoir of Higham Ferrers and Rushden Water Board, which is now being filled.</li> <li>(d) Unsatisfactory condition of drainage in one locality, which requires immediate attention.</li> </ul>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
<b>DESBOROUGH URBAN.</b>	<p>(a) Fair general, but high infantile, mortality.</p> <p>(b) Some prevalence of Scarlet Fever, but absence of Enteric Fever for first time in fourteen years. Prevalence of both Measles and Whooping Cough.</p> <p>(c) Need for a Steam Disinfector.</p> <p>(d) Partial failure of Public Water Supply ; operations in hand to increase supply.</p> <p>(e) Automatic flushing, and further ventilation, of sewers recommended.</p>
<b>FINEDON URBAN.</b>	<p>(a) Low general, but high infantile, mortality.</p> <p>(b) Prevalence of Scarlet Fever throughout the year, some Enteric Fever due to impure water, and a few cases of Whooping Cough.</p> <p>(c) New public water supply satisfactory.</p> <p>(d) Better flushing of sewers and water closets evidently necessary, and probably an increase in the number of ventilating shafts advisable.</p>
<b>IRTHLINGBOROUGH URBAN.</b>	<p>(a) Low general, and fair infantile, mortality.</p> <p>(b) Outbreaks of Scarlet Fever and Enteric Fever, and some</p>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
	<p>prevalence of Whooping Cough.</p> <p>(c) Connection of house-drains with sewers now in progress.</p> <p>(d) New Public Water Supply now in use.</p> <p>(e) Part III. of the Public Health Amendment Act, 1890, adopted.</p>
<b>KETTERING URBAN.</b>	<p>(a) Fair general, but high infantile, mortality.</p> <p>(b) Favourable results from open-air treatment of phthisical patients at the Union Infirmary.</p> <p>(c) Considerable prevalence of Scarlet-fever and measles.</p> <p>(d) Curtailment of water supply during dry summer.</p> <p>(e) Necessity for enlargement of sewage disposal works.</p> <p>(f) Satisfactory work of Refuse Destructor.</p>
<b>OUNDLE URBAN.</b>	<p>(a) Low general and infantile mortalities.</p> <p>(b) Small amount of zymotic sickness.</p> <p>(c) Need for Disinfector and Isolation Hospital.</p>
<b>RAUNDS URBAN.</b>	<p>(a) Low general, and fair infantile, mortality.</p>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
	<ul style="list-style-type: none"> <li>(b) Small amount of building during the year.</li> <li>(c) Sinking of well for a public water supply still proceeding.</li> <li>(d) Prospective need for a new cemetery.</li> </ul>
<b>ROTHWELL URBAN.</b>	<ul style="list-style-type: none"> <li>(a) Rather high general, and excessive infantile, mortality.</li> <li>(b) Extensive epidemic of Scarlet Fever.</li> <li>(c) House accommodation and new public water supply reported to be good.</li> </ul>
<b>RUSHDEN URBAN.</b>	<ul style="list-style-type: none"> <li>(a) Low general, but only fair infantile, mortality.</li> <li>(b) Large amount of Scarlet Fever prevalence of a mild type, and some Whooping Cough.</li> <li>(c) Absence of Enteric Fever during the year.</li> <li>(d) Anticipated completion of Public Water Supply.</li> </ul>
<b>WELLINGBOROUGH URBAN.</b>	<ul style="list-style-type: none"> <li>(a) Low general, but high infantile, mortality.</li> <li>(b) Comparatively moderate prevalence of Scarlet Fever, Enteric Fever and Diphtheria.</li> <li>(c) Two cases of Anthrax in the human subject.</li> <li>(d) Public water supply often contains too much white sediment.</li> </ul>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
<b>BRACKLEY RURAL.</b>	<ul style="list-style-type: none"> <li>(a) Low general, but high infantile, mortality.</li> <li>(b) Small amount of zymotic sickness.</li> <li>(c) Water supply of district from shallow wells, which proved sufficient except in a few cases.</li> <li>(d) Small amount of building during the year.</li> </ul>
<b>BRIXWORTH RURAL.</b>	<ul style="list-style-type: none"> <li>(a) Low general and infantile mortalities.</li> <li>(b) Comparatively small amount of Scarlet Fever in four villages, epidemic of Measles in another, and Whooping Cough in three others.</li> <li>(c) Shortage of water at New Brixworth during the summer.</li> <li>(d) Shortage of labourers' cottages.</li> <li>(e) Considerable activity in regard to schemes of sewage disposal.</li> </ul>
<b>CRICK RURAL.</b>	<ul style="list-style-type: none"> <li>(a) Fair general, and low infantile, mortality.</li> <li>(b) Remarkable freedom from zymotic diseases.</li> <li>(c) Building Bye-Laws for the whole District submitted to the Local Government Board for approval, as well as a recommendation for similar control over Slaughterhouses.</li> </ul>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
<b>DAVENTRY RURAL.</b>	<ul style="list-style-type: none"> <li>(a) Fairly low general and infantile mortalities.</li> <li>(b) Considerable prevalence of Scarlet Fever.</li> <li>(c) Outbreaks of Measles and Whooping Cough.</li> <li>(d) Long Buckby Water Supply Scheme at last completed, and scheme for Badby in hand.</li> <li>(e) Sewage Schemes, for Flore, Weedon, and Dodford in hand.</li> </ul>
<b>EASTON-ON-THE-HILL RURAL.</b>	<ul style="list-style-type: none"> <li>(a) High general, but low infantile, mortality.</li> <li>(b) Epidemic of Measles at Easton, but otherwise small amount of zymotic sickness.</li> <li>(c) No new sanitary work initiated.</li> </ul>
<b>GRETTON RURAL.</b>	<ul style="list-style-type: none"> <li>(a) Fair general, and very low infantile, mortality.</li> <li>(b) Small amount of zymotic sickness.</li> <li>(c) Abolition of cesspits, and efficient system of scavenging required.</li> <li>(d) Disinfecting apparatus greatly needed.</li> </ul>
<b>HARDINGSTONE RURAL.</b>	<ul style="list-style-type: none"> <li>(a) Fair general, and low infantile, mortality.</li> <li>(b) Considerable prevalence of Scarlet Fever, and epidemic of Measles in one village.</li> <li>(c) Public water supply for Dne-</li> </ul>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
<b>KETTERING RURAL.</b>	<p>ton completed.</p> <p>(d) Sewage Schemes at Cogenhoe and Yardley Hastings in satisfactory working order, that at Roade requires amendment.</p> <p>(a) Low general, and fair infantile, mortality.</p> <p>(b) Some whooping-cough and scarlet-fever prevalence in a few villages.</p> <p>(c) Apparent good results of Sanatorium treatment of phthisis.</p> <p>(d) Limited outbreak of Cerebro-Spinal Meningitis.</p> <p>(e) Scheme for the public supply of water to Burton Latimer and Warkton in hand.</p>
<b>MIDDLETON CHENEY RURAL.</b>	<p>(a) Low general and infantile mortalities.</p> <p>(b) Prevalence of Whooping Cough</p> <p>(c) Want of better housing accommodation for agricultural labourers.</p> <p>(d) Provision for the disinfection of infected clothing required.</p>
<b>NORTHAMPTON RURAL.</b>	<p>(a) Low general and infantile mortalities.</p> <p>(b) Large prevalence of Scarlet Fever.</p> <p>(c) Public water supply to Duston</p>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
	<p>by the Northampton Borough.</p> <p>(d) Need of van for conveyance of infected articles.</p> <p>(e) Improvement of sewage effluents at Duston and Bugbrooke.</p>
<b>OUNDLE RURAL.</b>	<p>(a) High general and infantile mortalities.</p> <p>(b) Limited outbreaks of Scarlet Fever and Diphtheria.</p> <p>(c) Great utility of the Isolation Hospital in checking the spread of zymotic diseases.</p> <p>(d) Improvement in the condition of Barnwell Brook.</p>
<b>OXENDON RURAL.</b>	<p>(a) High general and infantile mortalities.</p> <p>(b) Prevalence of Scarlet Fever in several parishes.</p> <p>(c) Progress in regard to sewage disposal.</p> <p>(d) Need of an Isolation Hospital.</p> <p>(e) Recommendation of Bye-Laws for New Buildings, and a Veterinary Inspector.</p>
<b>POTTERS PURY RURAL.</b>	<p>(a) High general and infantile mortalities.</p> <p>(b) Some prevalence of Scarlet Fever and Measles, and a case of Small Pox.</p> <p>(c) Water supply at Potterspury</p>

NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
	<p>and Paulerspury unsatisfactory, a supply for Hartwell in hand.</p> <p>(d) A portable Disinfecting Apparatus has been procured.</p>
<b>THRAPSTON RURAL.</b>	<p>(a) High general and infantile mortalities.</p> <p>(b) Epidemics of Scarlet Fever at Thrapston, Hargrave, and Ringstead, and of Measles and Whooping Cough at Hargrave</p> <p>(c) Sewage disposal works in hand at Great and Little Addington, Denford, and Woodford.</p> <p>(d) Water supply of Thrapston under consideration.</p> <p>(e) Question of providing suitable disinfecting apparatus under consideration.</p>
<b>TOWCESTER RURAL.</b>	<p>(a) High general and infantile mortalities.</p> <p>(b) Considerable prevalence of Scarlet Fever; outbreak of Measles at Abthorpe. Prevalence of Influenza.</p> <p>(c) Difficulties in respect of the Public Water Supply at Towcester now being overcome.</p> <p>(d) Fair amount of Vaccination during the year.</p>

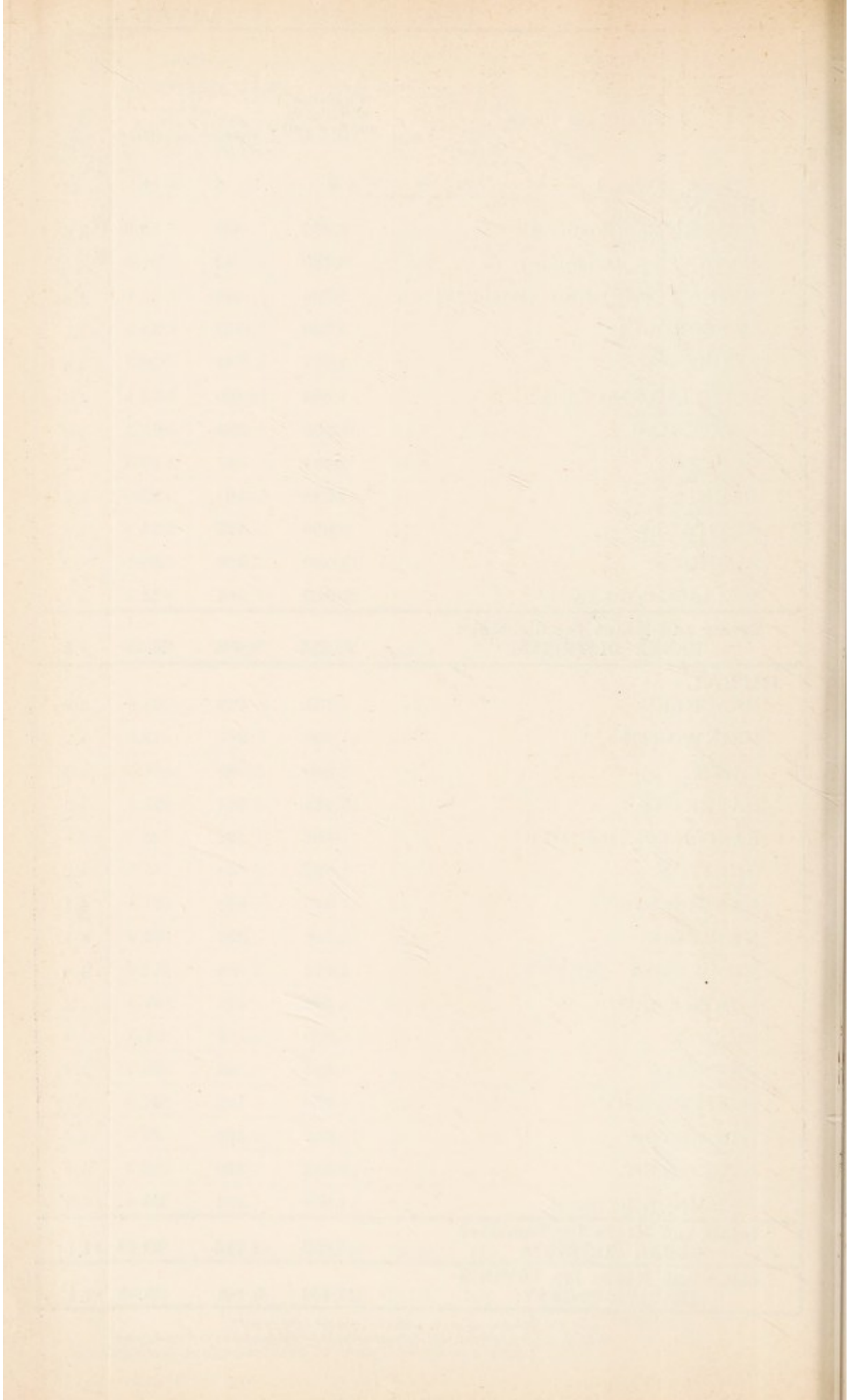
NAME OF DISTRICT.	PROMINENT FEATURES OF REPORT.
<b>WELLINGBOROUGH RURAL.</b>	<p>(a) Low general, but very high infantile, mortality.</p> <p>(b) Considerable prevalence of Scarlet Fever.</p> <p>(c) Public water supply for Wilby now efficient; scheme for Isham and Little Harrowden under consideration.</p> <p>(d) Improvements to Sewage Disposal Schemes at Irchester, Isham, Bozeat, and Earls Barton.</p>

VITAL STATISTICS DURING 1905.

Table I.

SANITARY DISTRICTS.	Population estimated to middle of 1905.	Births.		Total Deaths Registered in the Districts.				Total Deaths in Public Institutions in the Districts.	Deaths of Non-Residents registered in Public Institutions in the Districts.	Deaths of Residents registered in Public Institutions beyond the Districts.	Nett Deaths at all Ages belonging to the Districts.		Area of Districts in Acres.	At Census of 1901.				
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number.	Rate.†		Number.	Rate.‡	Total Population at all Ages.	No. of inhabited Houses.	Average No. of Persons per House.
				Number.	Rate.*	Number.	Rate.†											
<b>URBAN:—</b>																		
BRACKLEY (BOROUGH) .. .. .	2,467	59	23.9	5	84.7	47	19.0	18	10		37	14.9	3,489	2,467	548	4.5		
DAVENTRY (BOROUGH) .. .. .	3,780	82	21.6	6	73.1	70	18.5	18	16	1	55	14.5	3,633	3,780	869	4.3		
HIGHAM FERRERS (BOROUGH) .. .	2,794	48	17.1	5	104.1	28	10.0			2	30	10.7	1,945	2,540	555	4.5		
DESBOROUGH .. .. .	3,920	113	28.8	13	115.0	51	13.0				51	13.0	2,400	3,573	748	4.7		
FINEDON .. .. .	4,214	111	26.3	13	117.1	46	10.9			1	47	11.1	3,661	4,129	853	4.8		
IRTHLINGBOROUGH .. .. .	4,664	150	32.1	14	93.3	55	11.7			1	56	12.0	3,722	4,314	896	4.8		
KETTERING .. .. .	31,000	784	25.2	109	139.0	392	12.6	53	19	9	382	12.3	2,814	28,653	5,659	5.0		
OUNDLE .. .. .	2,404	47	19.5	4	85.1	38	15.8	12	10		28	11.6	2,228	2,404	512	4.7		
RAUNDS .. .. .	4,381	101	23.0	10	99.0	36	8.2			1	37	8.4	4,460	3,811	832	4.5		
ROTHWELL .. .. .	5,090	122	23.9	22	180.3	70	13.7	4		1	71	13.9	3,638	4,193	902	4.6		
RUSHDEN .. .. .	14,089	328	23.2	36	109.7	117	8.3			2	119	8.4	3,777	12,453	2,492	5.0		
WELLINGBOROUGH .. .. .	20,480	461	22.5	54	117.1	225	10.9	32	18	7	214	10.4	4,265	18,412	3,873	4.7		
<b>Totals and Means for Combined URBAN DISTRICTS.</b>	<b>99,283</b>	<b>2,406</b>	<b>24.23</b>	<b>291</b>	<b>120.94</b>	<b>1,175</b>	<b>11.83</b>	<b>137</b>					<b>40,032</b>	<b>90,729</b>	<b>18,739</b>	<b>4.8</b>		
<b>RURAL:—</b>																		
BRACKLEY .. .. .	7,181	170	23.6	21	123.5	85	11.8			4	89	12.3	42,440	7,182	1,818	3.9		
BRIXWORTH .. .. .	11,820	267	22.5	23	86.1	152	12.8		6	6	152	12.8	63,647	11,829	2,876	4.1		
CRICK .. .. .	2,280	60	26.3	4	66.6	29	12.7			2	31	13.5	18,547	2,284	601	3.8		
DAVENTRY .. .. .	13,425	364	27.1	33	90.6	167	12.4			2	169	12.5	60,877	13,425	3,275	4.0		
EASTON-ON-THE-HILL .. .. .	1,462	38	25.9	3	78.9	24	16.4				24	16.4	6,341	1,462	353	4.1		
GRETTON .. .. .	1,512	24	15.8	1	41.6	18	11.9			3	21	13.8	12,310	1,563	372	4.2		
HARDINGSTONE .. .. .	7,846	169	21.5	14	82.8	103	13.1	5		2	105	13.3	32,542	7,846	1,889	4.1		
KETTERING .. .. .	12,750	293	22.9	28	95.5	152	11.9			16	168	13.1	49,337	11,674	2,623	4.4		
MIDDLETON CHENEY .. .. .	2,414	54	22.3	4	74.0	30	12.4				30	12.4	13,888	2,414	626	3.8		
NORTHAMPTON .. .. .	6,360	133	24.8	12	90.2	151	23.7	83	83		68	12.7	16,228	6,420	1,290	4.2		
OUNDLE .. .. .	6,320	138	21.8	14	101.4	96	15.1			11	107	16.9	58,677	6,859	1,727	3.9		
OXENDON .. .. .	4,202	86	20.4	11	127.9	68	16.1			7	75	17.8	34,491	4,202	1,084	3.8		
POTTERSPURY .. .. .	5,152	142	27.5	21	147.8	71	13.7	10	2	1	70	13.5	19,914	5,372	1,282	4.1		
THRAPSTON .. .. .	10,052	260	25.8	37	142.3	161	16.0	15	4	1	158	15.7	36,836	10,348	2,453	4.2		
TOWCESTER .. .. .	10,282	240	23.3	25	104.1	168	16.3	15		4	172	16.7	42,457	10,720	2,633	4.0		
WELLINGBOROUGH .. .. .	13,568	324	23.8	43	132.7	162	11.9			3	165	12.1	33,115	13,156	3,033	4.3		
<b>Totals and Means for Combined RURAL DISTRICTS</b>	<b>116,626</b>	<b>2,762</b>	<b>23.68</b>	<b>294</b>	<b>106.44</b>	<b>1,637</b>	<b>14.03</b>	<b>128</b>					<b>541,647</b>	<b>116,756</b>	<b>27,935</b>	<b>4.1</b>		
<b>Totals and Means for ADMINISTRATIVE COUNTY.</b>	<b>215,909</b>	<b>5,168</b>	<b>23.93</b>	<b>585</b>	<b>113.19</b>	<b>2,812</b>	<b>13.02</b>	<b>265</b>	<b>34</b>		<b>2,778</b>	<b>12.86</b>	<b>581,679</b>	<b>207,485</b>	<b>46,674</b>	<b>4.4</b>		

\* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population. † Berry Wood Asylum population excluded for purposes of this calculation.  
 ‡ Deaths in Berry Wood Asylum situate in Northampton Rural District, and in Northampton County Borough Infectious Diseases Hospital situate in Brixworth Rural District, of persons not belonging to the Administrative County.  
 Note.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the Districts. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10, and the addition of the number in Column 11.  
 By the term "Non-residents" is meant persons brought into the District on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the District on account of sickness or infirmity, and have died in public institutions elsewhere.  
 The "Public Institutions" taken into account for the purposes of this Table are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums.







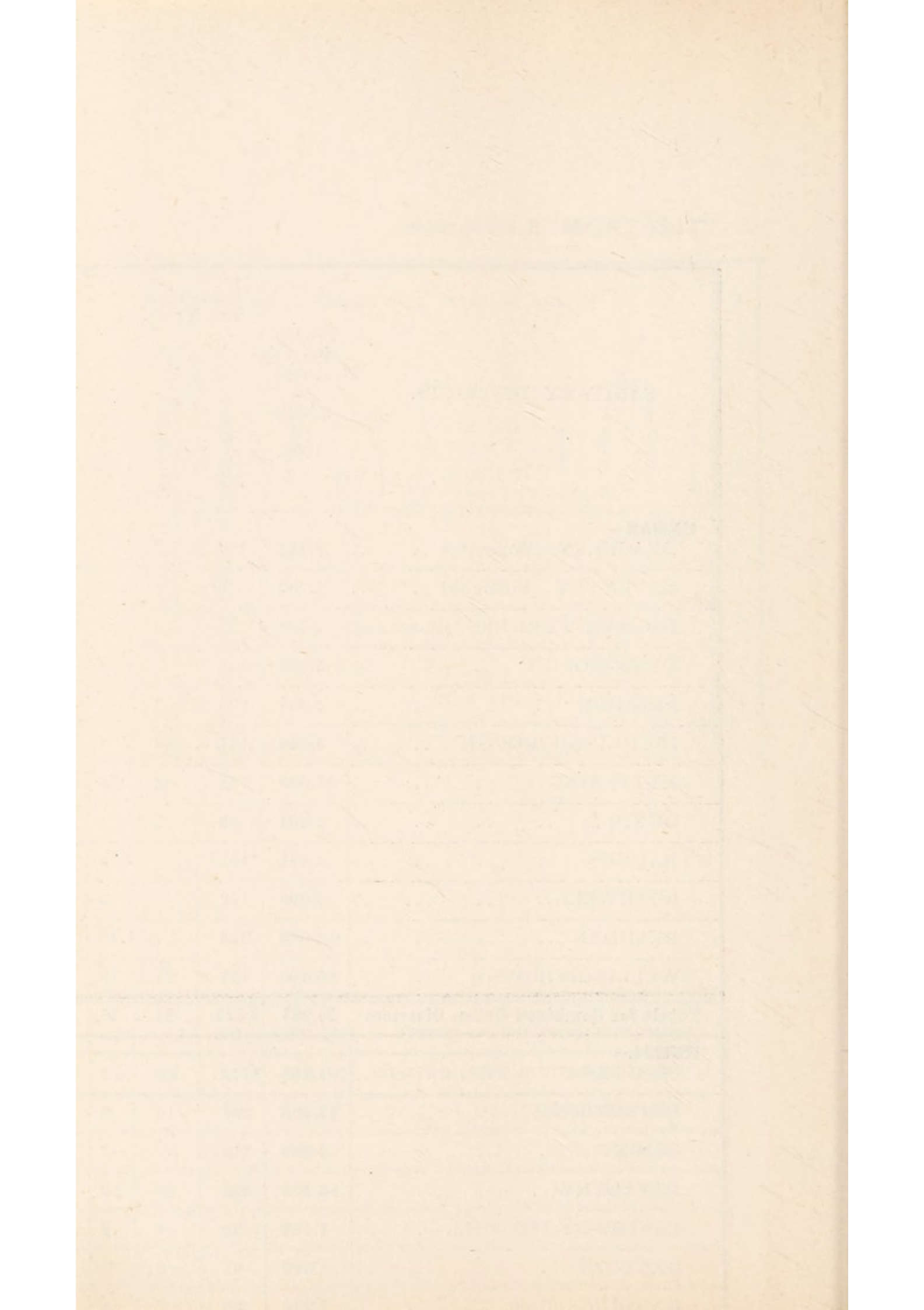












FACTORY AND WORKSHOP ACT, 1901.

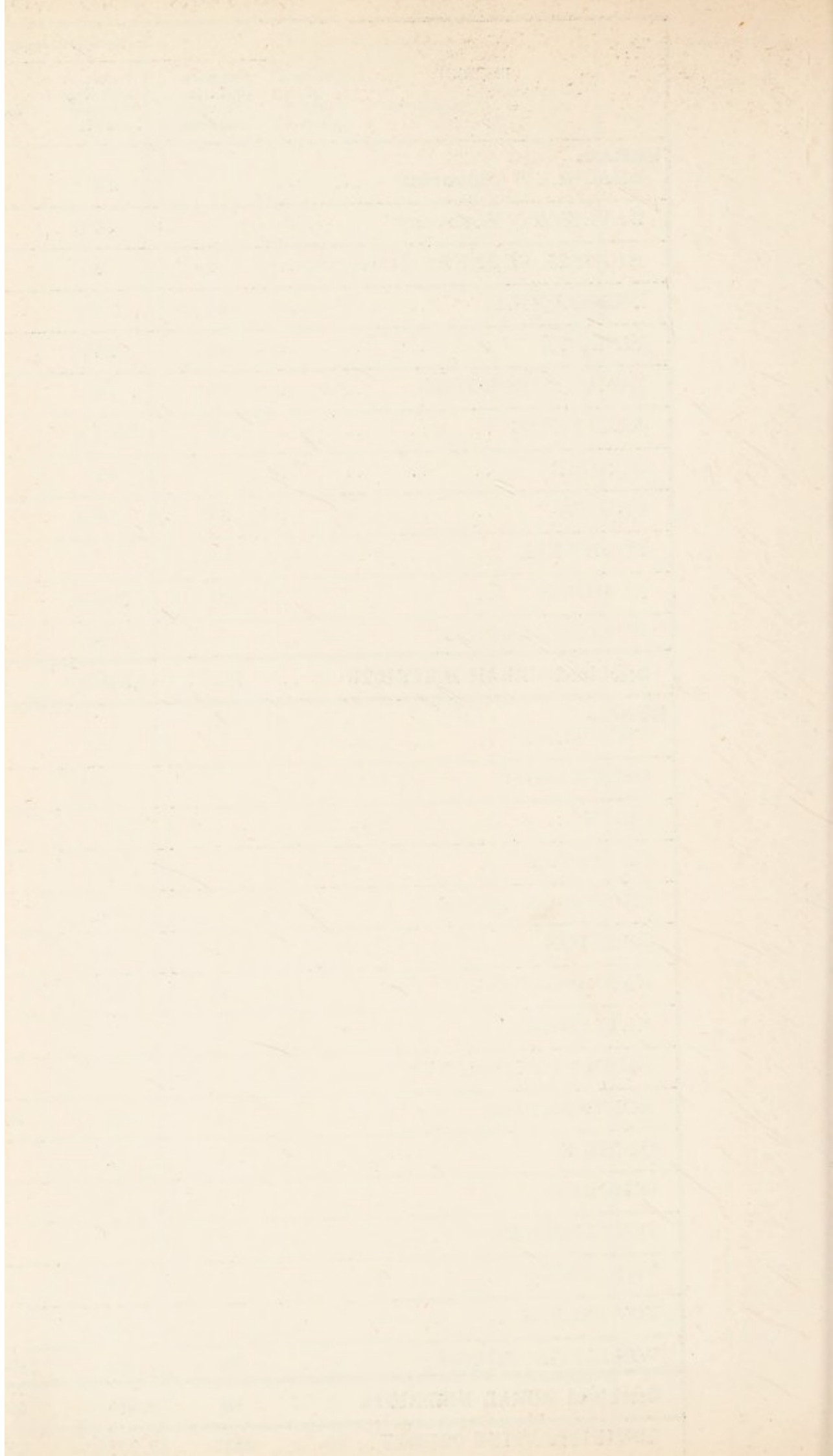
I.

DISTRICT.	Number of Inspections.				Number of Written Notices.			
	Factories (including Factory Laundries).	Workshops (including Workshop Laundries).	Workplaces.	Homeworkers' Premises.	Factories (including Factory Laundries).	Workshops (including Workshop Laundries).	Workplaces.	Homeworkers' Premises.
<b>URBAN.</b>								
BRACKLEY (BOROUGH) .. ..		15						
DAVENTRY BOROUGH) .. ..		34	6	12				
HIGHAM FERRERS (BOROUGH) ..	4	6	6	15	9			
DESBOROUGH .. .. .	18			106	6			12
FINEDON .. .. .	40	24		500				
IRTHLINGBOROUGH .. ..	26	19	16	20	20	8	3	4
KETTERING .. .. .	49	*655			2		2	
OUNDLE .. .. .		15						
RAUNDS .. .. .	30	14		122				
ROTHWELL .. .. .	11							
RUSHDEN .. .. .	84	300		253				
WELLINGBOROUGH .. ..		300	20	10		26	4	
<b>Combined URBAN DISTRICTS</b> ..	<b>262</b>	<b>1,382</b>	<b>48</b>	<b>1,038</b>	<b>37</b>	<b>34</b>	<b>9</b>	<b>16</b>
<b>RURAL.</b>								
BRACKLEY .. .. .		2						
BRIXWORTH .. .. .		3	14	128				
CRICK .. .. .		†42				†12		
DAVENTRY .. .. .		6						
EASTON-ON-THE-HILL .. ..		12						
GRETTON .. .. .	5	19	15					
HARDINGSTONE .. .. .	6	30		40				
KETTERING .. .. .	3							
MIDDLETON CHENEY .. ..								
NORTHAMPTON .. .. .	24	900	300			6		
OUNDLE .. .. .	4	72						
OXENDON .. .. .				56				
POTTERS PURY .. .. .	3							
THRAPSTON .. .. .	10	127	30	19		7	4	
TOWCESTER .. .. .		94						
WELLINGBOROUGH .. ..	34	68	‡200		3	4	†15	
<b>Combined RURAL DISTRICTS</b> ..	<b>89</b>	<b>1,375</b>	<b>559</b>	<b>243</b>	<b>3</b>	<b>29</b>	<b>19</b>	
<b>ADMINISTRATIVE COUNTY</b> .. ..	<b>351</b>	<b>2,757</b>	<b>607</b>	<b>1,281</b>	<b>40</b>	<b>63</b>	<b>28</b>	<b>16</b>

\* Includes Workplaces and Homeworkers' Premises.

† Includes Workplaces.

‡ Includes Homeworkers' Premises.



## FACTORY AND WORKSHOP ACT, 1901.

Nuisances under the Public Health Acts, including those specified in Sections 2, 3, 7, and 8, of the Factory Act, as remediable under the Public Health Acts.

*The following Table shows the Districts in which certain defects were found.*

DISTRICT.	Want of Cleanliness.	Want of Ventilation.	Over-crowding	Want of Drainage of Floors.	Other Nuisances.
<b>Urban :—</b>					
HIGHAM FERRERS (BOROUGH)		1		7	22
DESBOROUGH .. .. .	12				
IRTHLINGBOROUGH .. .. .					6
KETTERING .. .. .			1		
ROTHWELL .. .. .	2	1			4
WELLINGBOROUGH .. .. .	32	3		1	
<b>Combined URBAN DISTRICTS</b> ..	<b>46</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>32</b>
<b>Rural :—</b>					
BRIXWORTH .. .. .			5		
GRETTON .. .. .	1				
NORTHAMPTON .. .. .	20				
OUNDLE .. .. .	1				
OXENDON .. .. .			1		
THRAPSTON .. .. .	14	3	2		9
WELLINGBOROUGH .. .. .	6	3	1	1	8
<b>Combined RURAL DISTRICTS</b> ..	<b>42</b>	<b>6</b>	<b>9</b>	<b>1</b>	<b>17</b>
<b>ADMINISTRATIVE COUNTY</b> .. ..	<b>88</b>	<b>11</b>	<b>10</b>	<b>9</b>	<b>49</b>

All of the above were remedied, and in no case was any matter referred to H.M. Inspector, nor was there any prosecution.



## FACTORY AND WORKSHOP ACT, 1901.

*The following Table shows the only Districts which make reference to  
Sanitary Accommodations :—*

DISTRICT.	Insufficient.	Unsuitable or Defective.	Not separate for sexes.
<b>Urban :—</b>			
HIGHAM FERRERS (BOROUGH)	4	13	1
DESBOROUGH .. .. .		6	
IRTHLINGBOROUGH .. .. .		1	
KETTERING .. .. .	2	97	
RAUNDS .. .. .			2
ROTHWELL .. .. .		3	
WELLINGBOROUGH .. .. .	2	6	1
<b>Combined URBAN DISTRICTS</b> ..	<b>8</b>	<b>126</b>	<b>4</b>
<b>Rural :—</b>			
BRIXWORTH .. .. .		4	
WELLINGBOROUGH .. .. .	1		
<b>Combined RURAL DISTRICTS</b> ..	<b>1</b>	<b>4</b>	
<b>ADMINISTRATIVE COUNTY</b> .. ..	<b>9</b>	<b>130</b>	<b>4</b>

The whole of the above defects, with one exception, were remedied, and this case was referred to H.M. Inspector.

*The following Districts have not yet adopted Section 22 of the Public Health  
Acts Amendment Act, 1890 :—*

Finedon Urban.	Middleton Cheney Rural.
Oundle Urban	Oundle Rural.
Rothwell Urban.	Oxendon Rural.
Brackley Rural	Potterspury Rural.
Crick Rural.	Thrapston Rural.
Easton-on-the-Hill Rural.	Towcester Rural.
Gretton Rural.	Wellingborough Rural.

The standard of sufficiency and suitability of sanitary accommodation for persons employed in Factories and Workshops in Raunds Urban District is twenty for males and sixteen for females.

THE HISTORY OF THE

REIGN OF

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## FACTORY AND WORKSHOP ACT, 1901.

The following Table shows the Districts in which certain offences were discovered :

DISTRICT.	OFFENCES UNDER THE FACTORY AND WORKSHOP ACT.						
	Illegal Occupation of underground bakehouse (S. 101).	Breach of special sanitary requirements for bakehouses (SS. 97 to 100).	Failure as regards lists of outworkers (S. 107).	Giving out work to be done in premises which are		Allowing wearing apparel to be made in premises infected by Scarlet Fever or Small Pox. (S. 109).	Other offences.
				unwholesome (S. 108).	infected (S. 110).		
<b>Urban:—</b>							
DESBOROUGH .. .. .		1					
RAUNDS .. .. .			3				
<b>Combined URBAN DISTRICTS ..</b>		<b>1</b>	<b>3</b>				
<b>Rural:—</b>							
HARDINGSTONE .. .. .		1					
WELLINGBOROUGH .. .. .				3	8		
<b>Combined RURAL DISTRICTS ..</b>		<b>1</b>		<b>3</b>	<b>8</b>		
<b>ADMINISTRATIVE COUNTY ..</b>		<b>2</b>	<b>3</b>	<b>3</b>	<b>8</b>		

All of the above offences were remedied with the exception of three cases in respect of " failure as regards lists of outworkers (S. 107) " in the Raunds Urban District. No case was referred to H.M. Inspector, nor was there any prosecution.

### MATTERS NOTIFIED TO H.M. INSPECTORS OF FACTORIES:—

DISTRICT.	NUMBER.		
	Failure to affix Abstract of the Factory and Workshop Act (S. 139).	Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5).	Reports (of H.M. Inspectors) sent to H.M. Inspectors.
<b>Urban:</b>			
KETTERING .. .. .		1	1
WELLINGBOROUGH	3	2	2
<b>Rural:</b>			
WELLINGBOROUGH	*1		

\* Remedied.

### UNDERGROUND BAKEHOUSES (S. 101):—

DISTRICT.	NUMBER.	
	Certificates granted during the year.	In use at the end of the year.
<b>Urban:</b>		
KETTERING .. .. .		1
WELLINGBOROUGH		2
<b>Rural:</b>		
POTTERSPURY .. .. .		1

FACTORY AND WORKSHOP

The factory and workshop are situated at

No.	Description of the work done	Value of the work done
1	...	...
2	...	...
3	...	...
4	...	...
5	...	...
6	...	...
7	...	...
8	...	...
9	...	...
10	...	...
11	...	...
12	...	...
13	...	...
14	...	...
15	...	...
16	...	...
17	...	...
18	...	...
19	...	...
20	...	...
21	...	...
22	...	...

DISTRICT.	Number of Lists received.		Number of Addresses.		Notices prohibiting homework in unwholesome premises (S. 108).		Cases of infectious disease notified in homeworkers' premises.		Orders prohibiting homework in infected premises (S. 110).		Total number of workshops on Register.
	Number of lists.	Number of Outworkers.	Forwarded to other Authorities	Received from other Authorities.	Wearing Apparel.	Other.	Wearing Apparel.	Other.	Wearing Apparel.	Other.	
<b>URBAN.</b>											
BRACKLEY (BOROUGH) .. ..											15
DAVENTRY (BOROUGH) .. ..											26
HIGHAM FERRERS (BOROUGH)	4	52	3	5							7
DESBOROUGH .. .. .	18	259	4	2			10				9
FINEDON .. .. .	12	142		2							16
IRTHLINGBOROUGH .. ..	16	116	3				4		4		18
KETTERING .. .. .	27	382	15	3							442
OUNDLE .. .. .											15
RAUNDS .. .. .	21	401		2							7
ROTHWELL .. .. .	9	150		1							26
RUSHDEN .. .. .	38	403	139				15		15		150
WELLINGBOROUGH .. ..	14	202	5	4			1		1		160
<b>Combined URBAN DISTRICTS</b> ..	<b>159</b>	<b>2,107</b>	<b>169</b>	<b>19</b>			<b>30</b>		<b>20</b>		<b>891</b>
<b>RURAL.</b>											
BRACKLEY .. .. .											2
BRIXWORTH .. .. .	1	3									Nil.
CRICK .. .. .											24
DAVENTRY .. .. .	6	90		3							6
EASTON-ON-THE-HILL .. ..											Not stated
GRETTON .. .. .	1	28		2							15
HARDINGSTONE .. .. .	2	56	6								23
KETTERING .. .. .	9	165									*
MIDDLETON CHENEY .. ..											Nil.
NORTHAMPTON .. .. .	1	55		55							100
OUNDLE .. .. .											36
OXENDON .. .. .	4	56		4							14
POTTERSPURY .. .. .											3
THRAPSTON .. .. .	4	4		2							102
TOWCESTER .. .. .	3	17		3							94
WELLINGBOROUGH .. ..	19	1,177	3	2					10		61
<b>Combined RURAL DISTRICTS</b> ..	<b>50</b>	<b>1,651</b>	<b>9</b>	<b>71</b>					<b>10</b>		<b>480</b>
<b>ADMINISTRATIVE COUNTY</b> ..	<b>209</b>	<b>3,758</b>	<b>178</b>	<b>90</b>			<b>30</b>		<b>30</b>		<b>1,371</b>

\* Unable to give information owing to disappearance of former Sanitary Inspector.

DATE	DESCRIPTION	AMOUNT	BALANCE
1890			
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