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STAFFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

GEORGE REID, M.D., D.P.H.,

FOR THE YEAR 1902.

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STAFFORDSHIRE COUNTY COUNCIL.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH,

Presented to the Council at the Quarterly Meeting,
November 10th, 1903.

IN this, my Fourteenth Annual Report, I propose to adhere, so far as collating the Reports of District Medical Officers of Health is concerned, to the general plan adopted originally, and deal with the various reports under subject headings, in place of devoting a special summary to each, as is done in some county reports.

Were it not for the fact that the Administrative County contains so many sanitary districts, the latter plan would, possibly, be the better, but to adopt it under the circumstances, and, at the same time, give sufficient prominence to the more important features of each report under review, would necessitate needless repetition, many remarks being equally applicable to several districts.

I have again indexed the Report, so that each question dealt with, whether of general or special significance, may at once be referred to.

I take this opportunity of thanking the Medical Officers of Health who, almost without exception, have fallen in with my suggestions as to the introduction into their reports of certain details which, from the point of view of the County Council, are of great value.

In the "Summary of the Year's Work of the Sanitary Committee of the County Council," I have endeavoured to convey some idea of what has been done in public health work, more with the view of indicating the lines on which the Committee are proceeding than in the hope that such a condensed account can convey an adequate idea either of the work itself or the good which has attended it.

Summary of the Year's Work of the Sanitary Committee of the County Council, with General Comments on Public Health Administration.

As regards the summary of the work of the Sanitary Committee, I would point out that the year embraces a period of twelve months ending June 30th, 1903, as the last summary covered the ground up to the end of June, 1902. So far as that portion of the Report which deals with the reports of District Medical Officers of Health is concerned the period covered embraces 1902 only.

The routine work under the Rivers Pollution Prevention Act has proceeded on former lines. The systematic work of inspecting existing sewage disposal works, and the collection of samples of sewage effluents, and of river water at fixed points on streams, has been conducted uninterruptedly as far as possible, but, as was the case last year, the samples analysed have not reached the numbers of some former years, owing chiefly to the time which has been occupied in connection with outbreaks of small-pox, and in the negotiations for the formation of two large joint areas for making provision for the isolation of such cases. In all, 226 analyses have been made, compared with 230 the previous year. The samples analysed comprised the following:—Sewage effluents, 164 ; river waters, 44 ; and well waters, &c., 18.

It is customary to call the Committee's attention at the time to any irregularities which are noted in the management of sewage works, and the responsible Authorities in such cases are invariably communicated with.

To comment at all fully on the action which has been taken during the year in the matter of rivers pollution would require more space than can well be devoted to one subject in a Report of this description. Still, it may be useful to refer, shortly, to the more important questions in this department of the Sanitary Committee's work which have received attention.

As regards the extensions and improvements at the Birmingham, Tame, and Rea District Sewage Disposal Works,

I am glad to say that already a marked improvement has taken place in the river Tame below the works, as the result of the bringing into use of the increased area of land and other improvements in the details of sewage disposal. Recently, for the first time in the County Council's history, the condition of the river Tame at the point where it re-enters the County (having received the effluent from the works in question) was purer than at the point where it enters Warwickshire from Staffordshire. Meanwhile, the Drainage Board, in view of the increasing volume of sewage which has to be dealt with, have propounded a scheme for supplementing land treatment by means of biological filters, and the sanction of the Local Government Board has recently been obtained for a loan to defray the cost of construction of about six acres of such filters. I hope that these filters will prove to be merely the first instalment of others to follow, so that in time it may no longer be found necessary to overtax the land.

It has not been found necessary to hold a meeting of the Joint Committee of this Council and the Birmingham Corporation — the paramount Authority of the Drainage Board—but, should occasion arise, this Committee will again meet; meanwhile, it is satisfactory to know that it still exists, and can be called together at any moment.

With regard to the question of the disposal of acid-waste from galvanizing works in South Staffordshire, the Authorities and the manufacturers have failed to come to a general understanding, and the Sanitary Committee have come to the conclusion that each case will have to be dealt with on its merits. Since the conferences on this matter have been held, the question has become acute at Bilston—an important galvanizing centre—and I am glad to say that the District Council, in considering a scheme of sewerage and sewage disposal, came to the wise determination to adopt a method of treatment which will allow of the difficulty being overcome. Meanwhile, I would point out that the Royal Commission on Sewage Disposal, in their recently-published third report, have come to certain conclusions which are likely to form the basis of

future legislation, and in all probability the outcome will be that increased responsibilities will be placed on local authorities as regards the reception into their sewers of trade wastes. This, in itself, renders it inexpedient at present to precipitate any possible arrangement between local authorities and manufacturers.

During the year very complete experimental sewage disposal works have been constructed on a large scale at Hanley. I have not yet reported upon these works, but, from the analyses I have already made, I feel confident that the results will prove of the utmost value as a guide in determining the details of construction of the biological filters which the Corporation of Hanley are about to construct for treating the entire sewage of the town.

During the year Local Government Board Inquiries in connection with sewerage and sewage disposal schemes have been held in the following urban districts:—Bilston, Fenton, Heath Town, Lichfield, Oldbury, Willenhall, and Wolverhampton; also in the following rural districts, viz.:—Eccleshall, Hanford (Stoke Rural), Madeley (Newcastle Rural), and Mayfield. At all these inquiries, with the exception of the one at Wolverhampton, I was able to be present, and, except in the case of Oldbury, where the scheme proposed was, in my opinion, quite inadequate, I was able to support the applications for loans to carry out the work, having suggested, in one or two cases, certain modifications in the schemes as presented.

As regards the other work under this heading, besides numerous communications with Authorities and consultations with their officers, 15 special reports have been presented to the Sanitary Committee during the year dealing with questions relating to river pollution. Space, however, will not allow of more than an enumeration of the districts to which the reports in question had reference, as follows:—Biddulph, Brownhills, Burslem, Hanley, Heath Town, Longton, Newcastle, Oldbury, Rugeley, Stoke-on-Trent, Tettenhall, and Tunstall Urban Districts, and Cheadle, Eccleshall, and Uttoxeter Rural

Districts. I also reported specially upon the question of the effect of certain weirs on the Trent near Trentham in relation to the question of river pollution.

As regards the general work of the Sanitary Committee, reports have been presented, as the outcome of special inspections and inquiries by myself, affecting various districts in the Administrative County, and having reference to defective water-supplies and nuisances. In addition to these special reports, many matters have been dealt with arising out of my Annual Report for 1901, and affecting 23 districts, as follows :— Amblecote, Biddulph, Brierley Hill, Brownhills, Coseley, Darlaston, Handsworth, Leek, Newcastle, Perry Barr, Rugeley, Sedgley, Smallthorne, Stone, Tipton, Wednesfield, and Willenhall Urban Districts, and Cannock, Gnosall, Kingswinford, Leek, Tutbury, and Walsall Rural Districts.

As regards the administrative work under the Isolation Hospital Acts, the question of the formation of areas for making provision for the isolation of general infectious cases has had to give way, for a time, to the more pressing question of providing for the isolation of small-pox cases, owing to the repeated occurrence of cases throughout the County, and more especially in the northern districts.

I am glad to say, as regards the populous areas in the north—where the authorities had already provisionally united and made temporary provision for isolating small-pox cases—that an area has now been constituted, by Provisional Order under the Public Health Act, 1875, the County Council being represented by one *ex-officio* member on the Joint Board. Plans for a permanent small-pox hospital for this area have also been prepared and await the approval of the Local Government Board.

In the south of the County, where, as pointed out in my last year's summary, the County Council took the initiative and held a Statutory Inquiry under the Isolation Hospital Acts, it has been found that, in order to include the County Borough of Wolverhampton in the area, the constitution of the joint authority should be by Provisional Order, as in the

north of the County, and as the Corporation of Wolverhampton were anxious to join in the movement, it was decided to withhold the Order which had already been framed under the Isolation Hospital Acts, to allow of the alternative procedure being adopted. This led to further conferences between representatives of the authorities interested, and I am glad to say the larger scheme has now been carried through, and only awaits the sanction of Parliament. Meanwhile, steps have been taken to secure a suitable site provisionally, and a Joint Committee has been appointed with power to erect temporary buildings on that site should such a precaution be indicated.

A scheme for making provision for the isolation of general infectious cases in the Borough of Longton, by the inclusion of the Borough in the area of the Hanley, Stoke, and Fenton Joint Hospital Board, was submitted to the Sanitary Committee for approval, in anticipation of application being made for a contribution towards the expenditure from the County funds. Having carefully considered the proposals, I reported, in detail, to the Committee, pointing out in what respect the proposed provision was inadequate, and setting forth the conditions which, in my opinion, should be complied with, in order that the application of the Corporation might be entertained. The Committee approved my report, and forwarded a copy of it to the Longton Corporation with a notification to that effect.

The Corporation of Tamworth, and the Tamworth Rural District Council, also made formal application for a contribution towards the expenses of the existing Tamworth Joint Hospital. In reporting upon this application, I advised the Sanitary Committee to agree to the request if certain inexpensive additional accommodation was provided. I understand, however, that it has been decided not to make the necessary additions, so that, for the present, the authorities in question must forego any contributions from the County funds.

The Council are to be congratulated upon the success which has attended the arrangements for the gratuitous bacteriological examinations in suspected cases of diphtheria,

enteric fever, and phthisis. In some districts, however, general practitioners have not availed themselves of this aid to accuracy of diagnosis to the extent to which one had hoped they would

In the text of this Report, the opinions of many of the District Medical Officers of Health regarding the value of the scheme are quoted, and in the following table the actual number of specimens examined since the commencement are set forth.

BACTERIOLOGICAL EXAMINATIONS IN SUSPECTED CASES OF DIPHTHERIA, TUBERCLE, AND ENTERIC FEVER.

	Diphtheria.				Tubercle.				Enteric Fever.			
	Positive.	Negative.	Doubtful.	Total.	Positive.	Negative.	Doubtful.	Total.	Positive.	Negative.	Doubtful.	Total.
Commencement of Scheme, Oct. 20, 1898, to June 30, 1899	110	101	1	212	...	...	...	...	...	...	...	...
From July 1, 1899, to June 30, 1900	196	180	2	378	...	...	...	...	...	...	...	...
From Jan., 1900, to June 30, 1900..	...	...	...	...	9	14	...	23	5	4	...	9
From July 1, 1900, to June 30, 1901...	350	350	30	730	30	70	...	100	36	36	2	74
From July 1, 1901, to June 30, 1902...	190	367	14	571	25	67	...	92	26	32	3	61
From July 1, 1902, to June 30, 1903...	247	421	...	668	45	77	...	122	8	41	...	49
Totals from commencement of Scheme to June 30, 1903	1093	1419	47	2559	109	228	...	337	75	113	5	193

As instructed by the Sanitary Committee, I have presented a report on the subject of the prevention of pulmonary tuberculosis, which was submitted to the Council. At the present time, the question of the provision of a sanatorium for the treatment of such cases is being considered by a Sub-Committee, and I hope to be able to record in my next year's summary that some step has been taken in that direction. The fact that a valuable site has been offered to the Council will, no doubt, encourage the adoption of some practicable proposal.

Other reports have also been presented to the Sanitary Committee during the year dealing with the following matters :—

Sanitary Powers of County Councils (jointly with the Clerk of the Council).

Tuberculous Meat and Milk from Tuberculous Cows.

Midwives Act, 1902.

Prospective new Vaccination Act.

Third report of the Royal Commission on Sewage Disposal.

In addition to the work shortly detailed above, I have been consulted by Medical Officers of Health and other officers of local authorities on 91 occasions. On comparing these figures with those of previous years since a record has been kept, it will be seen that, while the number of consultations has not reached the number recorded in 1901, it is considerably higher than on any previous year. The figures are as follows :—

Year.		Consultations.	Year.		Consultations.
1894	...	55	1899	...	81
1895	...	57	1900	...	69
1896	...	62	1901	...	127
1897	...	47	1902	...	91
1898	...	77			

Before closing this short summary, I would specially refer to two most important features of this year's district reports, namely, the continued efforts which are being made by many of the Urban Authorities to abolish privies and private wells in favour of water-carriage systems and public water-supplies.

As regards the former question, it is to be hoped that the account of this movement recorded in this Report will stimulate those authorities, of urban districts more especially, who are not displaying much energy in this direction, to adopt this excellent policy. As regards the latter question, the remarks which follow under the heading of water-supply afford ample evidence of the risks attending the continuance of private well supplies, especially in populous districts, and point to the extreme importance of substituting for these, supplies from a public source when such are available, or,

failing that, of making every effort to protect wells from surface contamination.

Besides the Annual Reports of Medical Officers of Health, I have received 43 special reports during the year, having reference chiefly to outbreaks of infectious disease.

I am pleased to say that all the Annual Reports of District Medical Officers of Health are now printed.

Summary of Reports with Comments.

Area and Population.

I have no alteration to record this year in the area of the County. Last year, however, it will be remembered I had to call attention to a loss of population amounting to a little over 50,000, owing to the fact that Burton-on-Trent had been constituted a County Borough, a fact which explained the comparatively small increase in the urban population of the Administrative County during the decennial period preceding the census year 1901.

In the following table the actual census figures for 1901, and the estimated population up to the middle of 1902, are set forth, the urban being distinguished from the rural districts :—

	Census, 1901.	Estimated to middle of 1902.	Increase.
Urban	645,533	657,599	12,066
Rural	230,416	232,706	2,290
Total.....	875,949	890,305	14,356

Births.

The mean birth-rates in the whole Administrative County, and in the urban and rural districts respectively, for two quinquennial periods and for the last four years individually, are shown in the following table, in which corresponding rates in England and Wales, and in the large towns in England, taken from the Registrar-General's returns, are included :—

DISTRICTS.		Birth-Rate per 1000 of Population.					
		5 Years 1889-1893.	5 Years 1894-1898.	1899.	1900.	1901.	1902.
Staffordshire	Combined Urban & Rural	34·4	35·4	33·4	32·8	32·8	34·0
	Urban	36·0	30·5	34·5	33·9	34·1	35·0
	Rural	30·8	34·0	30·3	29·8	29·5	31·3
England and Wales		30·8	29·7	29·3	28·9	28·5	28·6
Large Towns in England		31·5	30·7	30·1	29·4	29·5	30·0

In Bilston, where the birth-rate was 38·7, the Medical Officer of Health states that with few exceptions it was the highest of any year during the last decade, and above the mean for that period.

In Sedgley, where the rate was 38·4, the figure is said to be below the mean for the past ten years.

In commenting upon a birth-rate in Stafford of 28·3, the Medical Officer of Health states that it is satisfactory to note an increase over the rates of the previous two years, although it is lower than the mean for the past ten years.

In Tunstall, where a birth-rate of 40·8 is recorded, the Medical Officer of Health points out, that, while it exceeds the rate of the previous year by no less than 4·5, it about equals the mean for the past ten years.

The Medical Officer of Health of Lichfield Rural District, in commenting upon a birth-rate of 31·6, gives the corresponding rates for 19 years, and points out that no great diminution has taken place, as has been the case in many parts of England.

Deaths.

The number of deaths registered in the Administrative County amounted to 14,124.

In the following table comparative figures for the past 14 years are given, together with corresponding figures for the country as a whole, and for town and country districts throughout England :—

DEATH-RATE PER 1000 OF POPULATION.

	Staffordshire.			England.		
Year.	*General.	*Urban.	Rural.	General.	Large Towns.	Country Districts.†
1889 ...	18·0	18·9	15·4	17·9	19·2	16·5
1890 ...	19·8	20·0	16·3	19·5	21·6	17·5
1891 ...	19·9	20·7	18·1	20·2	22·4	18·5
1892 ...	18·8	19·2	17·9	19·0	20·6	18·1
1893 ...	18·6	19·5	16·3	19·2	21·5	17·4
1894 ...	16·2	16·5	15·4	16·6	18·0	15·6
1895 ...	18·5	19·1	16·9	18·7	20·5	17·0
1896 ...	17·2	18·0	15·2	17·1	19·2	15·3
1897 ...	17·8	18·6	15·7	17·4	19·1	15·8
1898 ‡...	17·7	18·4	15·5	17·6	18·3	16·0
1899 ‡...	17·2	17·8	15·4	18·3	20·2	16·3
1900 ‡...	18·7	19·3	16·8	18·3	19·5	16·9
1901 ...	17·0	17·6	15·4	16·9	17·7	15·3
1902 ...	15·8	16·3	14·4	16·3	17·4	15·3

* Excluding Brownhills in the case of the year 1897.

† Certain proportion of Urban residents included.

‡ The figures for Burton-on-Trent are taken into account for the three years 1898-1900 only.

The death-rates in urban and rural districts, together with the figures upon which they are based, are shown in the tables at the end of the Report. In the following table the figures are given for those urban districts in which the rates may be said to be very high, together with figures and remarks bearing on the influences that causes, preventable and more or less non-preventable, have had on the results. The districts are placed in order, in accordance with the death-rates, the highest being placed first.

District.	Death-rate per 1000 of Population.	Population estimated to middle of 1902.	Number of persons to the Acre.	Zymotic death-rate per 1000 of population.	Occupation, &c.	Increase over average of entire districts from the undermentioned diseases, affecting appreciably the general rate.				Position as regards mean death-rate for previous 10 years.
						Measles.	Whooping Cough.	Diarrhœa.	Diseases of Respiratory Organs.	
Longton ..	22·5	36,120	18·0	2·10	Working class.	..	..	Slight.	Considerable.	24·1
Stone	22·1	5,680	5·3	0·70	,,	..	..	..	..	16·0
Tunstall ..	21·3	19,962	19·6	2·35	,,	..	..	..	Slight	23·0
Darlaston ..	21·1	15,469	18·8	2·39	,,	..	..	..	Considerable.	22·7
Burslem ..	20·2	39,606	15·3	3·05	,,	..	..	..	..	22·1

Considering the fact that the death-rate throughout the county is exceptionally low, in fact, the lowest I have yet had to record, both in the urban and rural districts, all the above rates must be looked upon as being highly unsatisfactory. Also, it will be noticed that, with one exception, viz., Stone, all the districts included in the table may be said to be high death-rate districts. The fact that Stone appears in this table on this occasion is of less importance, seeing that the mean death-rate in that district for the previous ten years was only 16·0, as will be seen from the last column in the table. Stone, being a comparatively small district, is likely to have a fluctuating death-rate, and the high rate for this year may be looked upon as being accidental, and will probably be counteracted by low rates in the immediate future.

Almost without exception the reports under review refer to the death-rate being exceptionally low. In Rowley Regis, Sedgley, Smethwick, and Stoke-upon-Trent, the rates are said to have been the lowest on record, and in other districts, for example, Bilston and Lichfield, they are said to have been the lowest recorded during the past ten years. In Newcastle the rate was lower than has been recorded during the past 20 years, while, in Willenhall, the Medical Officer of Health states that the rate was "the lowest since 1854, and probably the lowest for many years antecedent thereto."

In most cases the exceptionally low death-rates recorded are attributed to the comparative absence of epidemic diarrhœa and zymotic diseases generally.

The Medical Officer of Health of Handsworth gives very interesting figures, based upon the recent census, showing, among other things, the influence that occupation and age and sex constitution of the population have on the mortality statistics. From this report I quote the following:—"To reduce the death-rate to that of the 'standard population' of England and Wales, the crude rate of 11·2 must be multiplied by the factor 1·11422, which I have calculated on the basis of the census of Handsworth, in 1901, and the death-rates for England and Wales for the separate sexes at the various age-

groups in the years 1891-5. If Handsworth had the same age and sex constitution as England and Wales, the death-rate in 1902 would therefore be 12·5. In 1901 the death-rate was 15·2 when corrected on the basis of the 1891 census."

Infant Mortality.

Undoubtedly the most striking feature of this year's vital statistics is the exceptionally low death-rate among infants. This is attributable, in the main, to the comparative absence of epidemic diarrhœa, which is usually so fatal during the late summer and early autumn months, and not, I fear, to any special effort on the part of local authorities in the direction of improved sanitation.

It has been my practice in previous years to compile a table showing the districts in which the infant death-rate has been exceptionally high, and I have usually adopted a rate of 200 and upwards as the qualifying figure for that black list; this year, however, so great has been the reduction in infant deaths all round, that I have lowered the standard for the purpose of this table to 170, a figure which, it must be remembered, is only low in comparison with the rates one too often has to record. That this is so in the case of those districts which appear in the table this year is evident from the comparative figures which are given for previous years.

Deaths among children under one year per 1000 registered births.

	Burslem.	Darlaston.	Kidsgrove.	Longton.	Smallthorne.	Tunstall.
5 years 1889-93...	193	214	142	225	177	213
,, 1894-98...	204	212	179	247	163	224
1899...	197	243	184	245	151	181
1900...	230	221	166	255	178	241
1901...	209	209	220	227	162	220
1902...	172	203	195	195	181	177

The Medical Officer of Health of Bilston refers to an infant death-rate of 152 as being the lowest on record, with the exception of the year 1888, when the rate was 141; the mean rate for the ten years, 1892-1901, being 208.

In Burslem, a rate of 172 is referred to as being 31 per 1,000 births lower than the mean rate for the previous ten years.

The Medical Officer of Health of Coseley, under this heading, writes:—"I have every year called the attention of the Council to this waste of infant life, and have made suggestions that the Registrar should be supplied with, and asked to distribute, small leaflets, setting forth in plain language some instructions as to the feeding and clothing of infants, also that the Council should use their influence to secure one or more district nurses to go about amongst the people, and further, that the County Council be asked to arrange for lectures to be given on the subject.

"I make these suggestions once more, but no doubt it would be a good plan to have the instructions printed on an ornamental card, which could be hung up, as I see is done in Leek, in the hope that they will be kept longer than a thin leaflet."

The Medical Officer of Health of Darlaston writes:—"Two other factors that certainly do not make for longevity are illegitimacy and the employment of women in factories; as regards the former, the children are for the most part fed with less care than legitimate children, and being subjected to a harder life, are reared with greater difficulty. As to the latter a most prejudicial effect is exercised in the feeding of the infants, who, while the mother is at work, are put out to nurse, and are, more frequently than not, given any kind of food that chance may place in their way.

"In our efforts to find a remedy there can be no doubt that the question of maternal responsibility should hold first place, and it is only by a slow and persistent process of instruction that a change can be effected.

"The elementary rules of health should be embodied in school subjects, and in this direction it is gratifying that our Council are making enquiries with the object of bringing it about.

"The Registrar should continue to distribute the leaflets provided to each parent registering a child, and I have reason to believe that in some cases at least they have been welcomed and the advice followed.

"Finally, everything possible should be done by the Sanitary Authority to render 'insanitary conditions' less powerful as factors of infant mortality, as they are especially prone to render children, with their small power of resistance, susceptible to their evil influence."

The Medical Officer of Health of Fenton writes:—"These deaths are largely due to ignorance as to proper feeding; before long surely this will not be an excuse; knowledge will eventually remove any plea for what will be then criminal neglect.

"Many infants pass most of their lives enveloped in filthy clothing, and when carried about are well-nigh asphyxiated with the effluvia from dirty shawls, very often covering their faces. A chronic odour of sour milk is generally noticed. With such treatment and with any food but the right sort, the wonder is, not that so many die, but that so many survive.

"Leaflets giving 'Hints to Parents on the Feeding and Management of Infants and Young Children' are distributed by the Registrar, when persons apply to him for the purpose of registration of births. This is calculated to be of great use, and likely to help in bringing about a better state. Your Council have also caused leaflets to be given out showing how best to prevent and combat consumption; in this way it is to be hoped that the public will by degrees become better educated hygienically."

The Medical Officer of Health of Handsworth, in referring to the deaths among infants under one year which occurred in that district, says:—"Of the 150 infants, 50 having died

within fourteen days after birth, enquiry was not made as to feeding in cases where death was due to prematurity or some congenital defect, in three cases of debility mothers' milk was given, in a case of meningitis and one of convulsions cows' milk had been given. Of the remaining 100, the diet could not be ascertained in 6 cases, 17 were fed at the breast, 75 were brought up by bottle, and 2 were both breast-fed and hand-fed. As was the case in 1899-1901, three-fourths of these hundred children had been brought up by bottle entirely. Of the 20 children aged 1 month and upwards to 11 months inclusive who died of atrophy, marasmus, etc., only 4 had breast milk; of 8 who died of meningitis and convulsions only 1 had breast milk."

The Medical Officer of Health of Longton writes:—"Your late Medical Officer of Health was very much concerned about this high infantile mortality, since it has gained for the Borough the unenviable notoriety of being one of the highest infantile death-rates in the United Kingdom. How can we reduce this? In order to arrive at some means of dealing with this question, we must study the causes of the deaths in relation to (1) the social habits of our people, and (2) their surroundings.

"In respect to the social habits; in Longton, owing to china being lighter to handle than earthenware, and as china is the staple trade, more girls and women are employed than in the other Pottery towns, and therefore the babies born and unborn must suffer. Although neglect is undoubtedly responsible for some of these deaths, ignorance is much more to blame, and by combating this ignorance, gentlemen, you, as a sanitary body, can do good work. To achieve this purpose I would recommend you to issue through the Registrar of Births a pamphlet containing advice to mothers on the care of infants, and also to appoint a lady inspector to visit the houses and help the mothers to carry out the suggestions of the pamphlet. Lastly, if you can persuade the new Education Committee to embody in their educational code a course of instruction for the older girls of the schools on Domestic

Hygiene, including the care of infants, you will have discharged your duty in combating ignorance, and the death-rate will steadily fall.

"Secondly, in respect to the people's surroundings, I have already referred to the ashpits and cesspools, which have a particularly bad effect on infantile life, and unless they are properly dealt with the adoption of the other recommendations I have made will not relieve you of your responsibility in this respect.

"Overcrowding must be carefully looked for and prevented, and in this matter the lady inspector would be of great service."

Concerning this subject the Medical Officer of Health of Quarry Bank writes:—"It behoves you, as a council, to spare no reasonable effort to preserve infant life; firstly, because a child who survives the first year has passed the period of greatest mortality, and secondly, because whatever tends to the saving of infant life, tends also to the protection of older children from disease. In particular I would emphasize, as I have so often done, the abolition of insanitary dwellings and pollution of air, soil, and water, and the education of parents and guardians in the rudiments of infant feeding and nursing.

"You have already considered my two leading suggestions on the latter head, viz.:—

"1. The appointment of a Health Missioner to visit parents (especially the young and inexperienced) in their homes, there to teach by practical help and demonstration. This has been tried with some success in a few neighbouring districts, and I trust that the question of expense will not always be an obstacle to its adoption in your district.

"2. The teaching of 'Infant Hygiene' to the upper standards in the Girls' Board Schools. This became in May last, an accomplished fact, the text book Dr. Charles Porter's 'Suggestions as to the Feeding and Care of Infants' being provided free of charge by the Council. The headmasters of both schools have taken a keen interest in the scheme,

and have assured me (I quote verbatim) 'That the girls have been distinctly interested in the subject, and are now certainly better fitted to assist intelligently in the feeding, nursing, and care of infants,' and 'there has been no difficulty in getting them to understand the subject.' Now, every girl before leaving school receives instruction in this vital subject, and we may reasonably expect that in a few years' time much saving of infant life and health will result.

"On the whole, my opinion is that the mothers in your district do not work so much in factories away from home as formerly, nor indeed to the same extent as in many Staffordshire towns, and consequently more children are reared at the breast. This is the best protection for infant life that has yet been devised. Where mothers are systematically compelled to leave their children to neighbours and young nurses, it would be a great boon if a 'crêche' or public day nursery could be established, preferably controlled by the Council, where some reliable woman could look after the children during the working hours for a small payment. In this way at least proper food and cleanliness would be ensured."

The Medical Officer of Health of Stoke-upon-Trent writes:—"The question of reducing the infantile deaths is a pressing one. Insanitary conditions very soon make their mark on the infant lives, and young children serve as a sure means of judging of the sanitary condition of a district. The chief causes of the deaths among infants are diarrhœa, enteritis, bronchitis, pneumonia, marasmus, and convulsions; and care in feeding, clothing, and cleanliness will do much to reduce the number of deaths from these causes. In this district leaflets on Feeding and Management of Infants are now regularly distributed by the Registrar of Births, a copy being supplied to each person registering a birth. In my last year's report I advised the establishment of a depôt such as is now established in several districts for the supply of milk specially prepared and sterilized for the feeding of infants, and though it would probably not pay its way, it would not entail a very

large yearly expenditure, and has proved useful in those places where it has been employed. In the depôt the milk is not simply sterilized, it is mixed in varying proportions with water, sugar, and cream to suit children of different ages, and put in special bottles, each containing one meal. It is prepared with the greatest care under the most favourable conditions, and then sterilized.

"I am convinced that a regular inspection of all young children of occupiers of houses below a certain value by trained inspectors, with power to see that proper care is taken of the children, would most materially aid in reducing the infantile mortality. At present this can only be done indirectly, by means of either Health Visitors or Female Sanitary Inspectors, and I would strongly urge the adoption of these agents as a means (1) of bringing pressure, when necessary, to bear on those responsible for the care of the children, (2) of enhancing the value of the leaflets distributed by giving practical illustrations and help to those in need of them, and (3) of bringing to notice any sanitary defects in connection with houses visited. Both these agencies are at work in some towns with the happiest results. In the case of health visitors, a voluntary committee of ladies aid in supervising their work. These agencies could be very usefully employed in this district, and I am sure many ladies would be found willing to assist in this work, and the cost would not be great considering the benefit to be derived."

The Medical Officer of Health of Tipton writes:—"Our high infantile mortality rate presupposes ignorance and carelessness on the part of mothers, and doubtless these are the prime factors. Infants are frequently improperly fed, and some die from this cause. There is, however, in this parish, no one definite cause to be assigned as materially affecting the rate. As a rule, the mothers nurse their own children, are fairly healthy, have not to work for a livelihood, and are able and willing to take ordinary care of their infants. From the experience of years of enquiries I am convinced that I have never seen or heard of a mother who has let her child

die for the sake of the insurance money. The more weakly infants either die off or swell the number of scrofulous or tubercular inmates of our hospitals and infirmaries, if they manage to survive. Much good should arise from the excellent lectures which have been given under the auspices of the Council to women, and probably in a few years' time we may feel the benefit of them by young mothers knowing how to feed their children in a sensible manner."

The Medical Officer of Health of Wednesfield writes :— "The continued high death-rate is much to be deplored in the district, and there seems to be a concensus of opinion among Medical Officers of Health, that it is chiefly due to the improper feeding and nursing of babies, and next to insanitary and unhealthy surroundings. No doubt the solution of the problem is no less a social than a sanitary one, and should appeal to the philanthropist no less than the sanitarian.

"The following suggestions, made in my last Annual Report, I would like again to bring before the Council, with the object of remedying to some extent this continual evil :—

"(1) The institution of lectures on the proper care and feeding of infants, which the County Council would arrange under certain conditions being complied with.

"(2) The distribution of leaflets, couched in simple language, to the mother or those having the care of the child, on the occasion of the registration of its birth, dealing with this subject, as is done in some localities in the country with advantage.

"(3) The removal of accumulations of objectionable matters, and of obvious nuisances, and the pavement and proper drainage of yards and courts.

"If the Council could see their way to carry out these suggestions there is every reason to believe that many infant lives would be spared in the future, which are now annually sacrificed on the altar of inattention and neglect."

The Medical Officer of Health of Lichfield Rural District writes :—"There can be no doubt that early improper feeding through ignorance and mistaken kindness is the most fertile

cause of infant mortality among the poor. I would suggest that a card or leaflet, containing simple instructions for the feeding and management of babies, should be printed and supplied to the Registrar, to be given out with every certificate of birth. I believe this is being done in other parts of the county with good results."

The Medical Officer of Health of Walsall Rural District, in referring to a low infant death-rate this year in his district, says :—" I am afraid, however, that the record this year must be looked upon as little more than a coincidence, although I trust that in future years the infantile mortality will continue to shew a substantial reduction compared with the high rates of former years, as it seems to be getting time for the effects of the more general education of the working classes to be telling in this matter."

The Council will remember that I conducted an inquiry some years ago into the effect of factory labour on the infant mortality. I give in the following table the original figures for the artisan towns, classified, as far as it was then possible to classify them, in accordance with the relative proportion of married women engaged in factory work, together with corresponding figures for the subsequent ten years' period, and for the last two years :—

CLASS.	No. of Towns.	Total Population, 1901 Census.	Deaths of Infants under 1 year per 1,000 registered births.		
			1881-1890	1891-1900	1901-1902
I.—Many married Women Workers	5	147,273	195	211	190
II.—Fewer married Women Workers	9	198,941	166	177	158
III.—Practically no married Women Workers	12	181,461	152	167	153

Hitherto I have not been able to classify the towns on a more reliable basis, but the Registrar-General has now been good enough to supply me with certain figures, specially extracted from the 1901 Census returns, showing the number of married and widowed females engaged in specified occupations in each town, together with the number of females living at various ages. From these figures I have estimated, in the case of each town, the percentage of married and widowed females engaged in work involving absence from home during the day per total females between the ages of 18 and 50. Had it been possible to work out the rates in each case on the married female population only, the percentages would, of course, have been higher, but I had no data to allow of this being done. Again, I am obliged to assume, in the absence of corresponding figures from previous Census returns, that the number of married and widowed outworkers to the female population within the specified age limit was the same throughout the 22 years covered by the infant mortality figures as in the last Census year, an assumption which, I think, is justified by the fact that no change has taken place in the special trades carried on in the various towns during the whole period.

On the new basis, then, I have re-classified the same towns into three groups, placing in the first group those in which the proportion of married and widowed females engaged in work away from home to total females between 18 and 50 reached, and exceeded 12 per cent.; in the second group, those towns in which the proportion was under 12 per cent. and over 6 per cent.; and in the third, those in which the proportion was under 6 per cent.

The altered method of classification has resulted in the following re-grouping as compared with the original:—One town has been transferred from Class I. to Class II., another from Class II. to Class I., while four towns have been transferred from Class III. to Class II. Working out the infant mortality figures on the new basis, the results are as follows:—

Class according to percentage of Married and Widowed Workers to Female Population between 18 and 50 years.	No. of Towns.	Total Population, 1901 Census.	Deaths of Infants under 1 year per 1,000 registered births.		
			1881-1890	1891-1900	1901-1902
I.—12% and over	5	132,299	195	212	192
II.—Under 12% and over 6%	13	263,868	165	175	158
III.—Under 6% ...	8	131,508	156	168	153

It will be seen that the figures of the new classification compare very closely with the original figures, and bear out my contention that, in the absence of any other apparent reason, the excessive mortality in the first group compared with the second and third, and in the second compared with the third, is attributable to the nature of the trades carried on as affecting the facilities for the employment of women away from home and, as a consequence, the proportion of wholly artificially-fed to entirely or partially breast-fed infants. While I am prepared to admit that the practice of mothers engaging in factory work, and continuing at work practically up to the day their children are born may, in itself, prejudicially affect the lives of their children, I maintain that the injury arising from the entire deprivation of mother's milk during the early months of the child's life is far more serious. No doubt the injury largely results from ignorance on the part of those who have the care of infants as to the proper substitute for mother's milk, and the importance of the storage of food under cleanly conditions, and until women are instructed in such matters we must look for a continuance of a needlessly high infant mortality all round, but more especially in those centres of population where the nature of the trade carried on leads, indirectly, to an increase in what may be termed the normal proportion of infants who are entirely dependent on artificial feeding.

I have devoted considerable space to the question of the infant mortality of the County, but not more, I think, than the importance of the subject demands. While it is an undoubted fact that sanitation has effected a marked improvement in the public health, it does not appear that much, if any, progress has been made in reducing the death-rate among infants. The fact is, that no amount of energy on the part of sanitary authorities, in the direction of improving the home surroundings of the people, will have the desired effect in the absence of a determined attempt to break down the gross ignorance which prevails regarding the feeding of infants. It is deplorable to think that nearly 2,000 children end their lives annually in this County, within a few weeks or months of their birth, from no other cause than improper feeding, and this, not because of wilful neglect on the part of parents, but because, from mistaken kindness in most cases, mothers blindly follow an unfortunate tradition, believing that they must know best what is good for their children, and that what the child likes cannot be bad for it.

It would appear that we cannot hope to make much impression on the present race of mothers, but can we not look a little further ahead and endeavour, by means of simple teaching in schools, to instil into the coming race reasonable ideas regarding everyday matters affecting health, including infant feeding, and so lead to a radical change for the better in the future? This is a matter which calls for the earnest attention of the new education authorities, and it is to be hoped that they will give it that consideration which its importance deserves.

Zymotic Death-Rate.

The death-rate from zymotic diseases, including under this heading, according to the Registrar-General's classification, the seven principal ones—viz., small-pox, measles, scarlatina, diphtheria, fevers, whooping cough, and diarrhœa—is lower this year than last, in fact it is the lowest rate I have had to record since I first collated the vital statistics of the Admistrative County in 1889.

In the following table the comparative figures are given for the past fourteen years, together with similar figures for England and Wales, and for the larger towns in England :—

Zymotic Mortality per 1000 of Population.

	Districts in Administrative County.			England and Wales.	Large towns in England.
	Urban.	Rural.	Urban & Rural combined.		
1889	2·36	1·17	1·99	2·40	2·72
1890	2·06	1·15	1·77	2·05	2·77
1891	2·00	1·36	1·82	1·83	2·41
1892	2·03	1·10	1·77	1·90	2·63
1893	2·41	1·58	2·17	2·47	3·17
1894	1·68	0·97	1·47	1·76	2·43
1895	2·39	1·15	2·04	2·14	2·82
1896	2·71	1·55	2·39	2·18	2·90
1897	2·91	1·57	2·54	2·15	2·87
1898	3·41	1·68	2·97	2·22	2·85
1899	2·54	1·27	2·22	2·21	2·81
1900	3·04	1·89	2·75	2·00	2·50
1901	2·50	1·39	2·21	2·05	2·68
1902	1·63	0·93	1·44	1·64	2·12

It will be noticed that both urban and rural districts have contributed to the decreased rate; and, on comparing the figures of the individual zymotic death-rates for this year with those for last year, it would appear that the improved rate is chiefly attributable to a marked decline in deaths from diarrhœa and diminished rates of mortality from diphtheria and whooping cough. On the other hand, the death-rate from measles compares unfavourably with that of 1901, when, however, the rate was exceptionally low.

The Medical Officer of Health of Newcastle, in commenting upon a zymotic death-rate of 0·54, states that he believes it to

be the lowest on record, the chief reason being that no deaths resulted from scarlet fever or diphtheria, only one from enteric fever, and very few from diarrhœa.

At Quarry Bank, where a rate of 2·73 is recorded, the Medical Officer of Health points out that deaths from measles and whooping cough contributed to the extent of two-thirds.

In Sedgley, a rate of 1·4 is referred to as being the lowest during the past ten years.

In Stoke-upon-Trent, the Medical Officer of Health comments upon the lowness of the rate, viz., 1·21, and gives as a reason for it the small number of deaths which occurred from diarrhœa.

Special Zymotic Death-rate.

Small-pox.—In my last year's Report I congratulated the County on having escaped any serious outbreak of small-pox, seeing that the disease had been so prevalent in London and a few other large towns. This year a good many cases have occurred throughout the County, more especially in North Staffordshire, but in no case can it be said that the disease assumed epidemic proportions, being confined mostly to spasmodic cases occurring at intervals in different districts, the infection, as a rule, being imported by means of tramps. That so highly infectious a disease should so often have been introduced into districts which, I fear, are by no means adequately protected by vaccination, and still have been held in check, speaks volumes for the energy of the various health officers. I have been in touch with these officers, and can bear testimony to their energetic action, which, I may state, was not confined to their own particular districts, but included an inquiry into the previous history of the persons introducing the disease, in order that prompt information might be sent to the officers of the districts, no matter in what county, through which the tramp or other infected person may have passed while in an infected state. By this process of mutual assistance risks were frequently anticipated and guarded against. Credit is also due to the Authorities themselves, who,

by allowing their officers a free hand as regards expenditure, enabled prompt action to be taken which is essential to success in all such circumstances.

As the disease is still recurring in the County, I do not propose in this Report to give a detailed history of the various outbreaks, because, with the help of the district medical officers, I hope to be able to complete the story in my next Annual Report; it may prove of interest, however, to refer to some of the comments which appear in this year's reports of those medical officers of health in whose districts outbreaks occurred.

The Medical Officer of Health of Longton writes :—"A tramp introduced this disease into the Borough on November 27th. He had previously resided in a lodging-house in Hanley, where the disease first showed itself in the district. Thorough disinfection, re-vaccination, and quarantine undoubtedly saved the town from an epidemic, and we owe a debt of gratitude to the Chairman of the Sanitary Committee for taking upon himself the responsibility of ordering all necessary precautions to be taken at once, without waiting for a special meeting of the Committee to be called, and thus saving time and money. The Chairman was so much in earnest that he said he would meet all the expenses out of his own pocket if the Sanitary Committee thought he had exceeded his power. This case was not reported from Longton, as it was not diagnosed as small-pox until the evening of the day it was removed from the lodging-house in Longton to the Workhouse. You very rightly passed a vote of thanks to the Workhouse officials for so promptly notifying us of the case.

"The one case notified here occurred on December 3rd, in Newhall Street, and I could only account for it by supposing the patient had come in contact with the tramp. This case was promptly removed to Bagnall, his house was thoroughly disinfected, the family and all known contacts were re-vaccinated, and quarantine was established and continued for fourteen days. No other cases occurred from this one.

"You ordered leaflets, advising re-vaccination, to be distributed, with a very good result. Re-vaccination was taken up well by the public, and there was no epidemic."

The Medical Officer of Health of Sedgley writes :—"This dreaded disease appeared in your district on three occasions during the past year, in January, May, and December. The first case was the case of a child in Gatacre Street, who was probably infected by a visitor from London. The child was removed to your small-pox hospital, along with two young sisters and the parents, and no other case occurred. The parents acted as nurse and caretaker, and were in the hospital from January 27th till February 17th. In April a tramp sent from Sedgley to Stafford prison there developed the disease, and the chief warder wrote me on April 28th making the extraordinary request that this Authority should take charge of the patient on May 2nd, when his term of imprisonment ended. After consulting your Clerk I promptly refused, as no liability, legal or otherwise, rested with this Sanitary Authority in the matter.

"In May another tramp developed small-pox in the Workhouse. He had never been vaccinated, and was removed to the Dudley small-pox hospital, where he died. In December an Upper Gornal man who had been on tramp in the Potteries, where several cases had occurred, was attacked by small-pox. He was first visited on the evening of Monday, December 1st, but he could not be removed to your hospital till Wednesday, 3rd, owing to a hitch in our arrangements for a nurse, and to the lack of an ambulance. With the valuable and untiring assistance of Mr. Wane, your Sanitary Inspector, the patient was kept in his own house in Club Row, and as far as possible was prevented from being seen by neighbours and friends. His wife was re-vaccinated ; and some of those who had seen him, after I had obtained the help and sanction of their employers, submitted to re-vaccination, which is a proved preventive in such circumstances. Some other contact cases refused re-vaccination.

"The patient, after removal to hospital, where his wife and two children accompanied him, was for a time dangerously ill, but ultimately made a good recovery. The only other case that occurred was one of his children, who had, while in hospital, a very mild attack. The hospital attendants were re-vaccinated, and every care was taken to prevent the spread of the disease, happily with complete success, for no other case has occurred till now (March 13th), and the hospital was closed on January 24th. The value of your small-pox hospital could not be better demonstrated than by the history of this last case, for by prompt isolation of the first case no others have occurred, a result which compares favourably with other and better-equipped districts in the County."

The following extract from the report of the Medical Officer of Health of Smallthorne indicates a want of foresight on the part of his Authority in not availing themselves of the opportunity they had of joining in the North Staffordshire Joint Small-pox Hospital area :—"Considering the fact that small-pox is prevalent in many large towns and also in your neighbourhood, we may consider ourselves lucky that no case has been notified as existing in your district. I say lucky, for if this disease appears in your district it will find us entirely unprepared, no means of isolation, no means of disinfection. I drew your attention to this in one of my monthly reports and urged upon you the necessity of immediately making arrangements for the isolation of any case that may occur."

I understand that the Smallthorne District Council are now anxious to become a constituent Authority of the Joint Hospital Board, but this decision was arrived at too late to allow of the necessary order being framed this Session of Parliament.

The Medical Officer of Health of Smethwick writes :—"Small-pox has again been prevalent the whole year throughout the country, and Smethwick has not escaped, though only one case occurred which was undoubtedly contracted outside the district. Prompt steps were taken to secure the isolation of the patient in the hospital; his dwelling was thoroughly

disinfected, his family re-vaccinated, and the Vaccination Officer, having been apprised of the outbreak, instituted a house-to-house visitation in the street, with the result of discovering a good many unvaccinated children, all of whom he succeeded in getting vaccinated by the public vaccinator, and a good many other persons were re-vaccinated in the neighbourhood. In January, in consequence of the increased prevalence of small-pox in the country, I recommended the Health Committee to have posters printed and distributed through the Borough, advising all persons over 12 or 14 to be re-vaccinated. They at once ordered this to be done, and also communicated with the Kings Norton Board of Guardians, who decided to open a vaccination station, where persons could avail themselves of the opportunity of being re-vaccinated. I have no specific information as to the number of persons who were re-vaccinated, but it is a fact within my own personal knowledge, that re-vaccination was largely performed."

The Medical Officer of Health of Cheadle Rural District writes :—" Four cases of small-pox were notified during the year, this being the first visit of the disease to the Union for many years.

" The first case occurred in Cheadle, in March, and had to be treated at home, as there was no hospital accommodation available in the district at the time. Although extensive enquiries were made as to the probable source of infection, in this case it was impossible to obtain any information as to its origin. The patient was isolated in his own home and all infected articles were destroyed by fire. The house was thoroughly disinfected, and no further spread of the disease occurred.

" The other outbreak in the district occurred at Tean, in the month of June, and consisted of three cases. The source of infection in this case was traced to a man who had come from Woolwich (where the disease was epidemic). It appears that this man was employed in the Royal Arsenal, at Woolwich, and several cases of small-pox had recently occurred

among the employees there. He came to Tean to stay with his parents, on holiday, on the 18th May. Soon after coming to Tean he complained of feeling unwell and developed a very slight amount of a pustular rash, but it was not thought at this time that he was suffering from small-pox, and he was soon well enough to return to his employment at Woolwich. On the 2nd June, this man's father was taken ill with small-pox, and on the 8th June his mother developed the disease. The remaining case occurred in a man who was employed in the same house as one of the last-mentioned patients.

"All possible precautions were adopted to prevent the spread of the infection. The Medical Officer of the Arsenal at Woolwich was at once communicated with regarding the man who had brought the disease from there and he was placed under observation. All infected clothing, etc., was destroyed by fire, and the houses implicated were thoroughly disinfected on several occasions. All known 'contacts' were re-vaccinated and isolated.

"At the time of this outbreak your Council had fortunately made arrangements to take a share in the North Staffordshire Joint Small-pox Hospital at Bagnall, and all the cases were removed there as soon as they were notified. No further spread of the disease took place."

Concerning a tramp who was admitted into the isolation hospital from the Union Workhouse, the Medical Officer of Health of Lichfield Rural District writes as follows :—"The case of small-pox was admitted into one of the cottages on June 12, under the charge of a trained nurse, who was specially engaged to look after him. He was a tramp from the Workhouse, aged 50, and had travelled from Poplar Workhouse through Nottingham and Derby to Lichfield. He had two ill-defined vaccination marks on the left arm. The disease became semi-confluent, and he was detained in hospital for 10 weeks.

"The case was at once reported to the Local Government Board and the County Council, and the places where he had rested on his way from London communicated with. The in-

mates of the Workhouse were all re-vaccinated, and the tramp wards, etc., disinfected. At the hospital, as we are without a disinfector, beds, bedding, clothing, etc., were burnt. Leaflets were also printed and distributed, setting forth in plain language some facts about small-pox and the certain advantages to be derived from vaccination and re-vaccination. These were directed to be given out by the Registrar with each vaccination notice.

" No extension of the disease took place.

" With reference to this case I cannot help thinking that all vagrants, especially those who frequent tramp wards and common lodging-houses should be compelled to undergo re-vaccination. There surely could be no hardship in rendering the operation strictly compulsory on at least this particular class of the community ; just as recruits who enter the Army have to submit to re-vaccination when they enlist. If this were to be carried out systematically, in my belief, the most fertile source of the dissemination of small-pox in this country would be abolished. Small-pox in our Army is now becoming practically unknown, as it has already been, for nearly a quarter of a century, in Germany, where re-vaccination is compulsory at certain ages. The remarkable success which has attended the measures adopted by the latter country is known to all the world."

The Medical Officer of Health of Tamworth Rural District writes :—" A vagrant was admitted on April 8th into the receiving ward of the Tamworth Union Workhouse, and complained that he was ill. As there was some suspicion as to the true nature of the case, he was isolated, and having subsequently developed unmistakable symptoms of small-pox, he was removed to the isolation cottage at Well-barn, Harlaston, which had been previously secured and prepared for the reception of any case of small-pox which might occur in either the rural or urban districts of Tamworth. Those persons who might possibly have been in contact with the man were at once re-vaccinated, and kept under personal observation. The master and other officials had been recently re-vaccinated.

Fortunately, no other case occurred. With the aid of the Sanitary Inspector, disinfection was thoroughly carried out. After fumigation, all the clothes, rugs, blankets, and bedding were burnt, and the wards cleansed and limewashed.

"Information of the nature of the case was sent to the proper authorities at the places at which the man stated he had recently lodged or had tramped through. Previous to his admission he had spent two or three hours in Tamworth, having travelled along the Ashby Road from the direction of Measham.

"At the Isolation Cottage at Well-barn every precaution was taken to prevent the spread of the disease. The nurse from the Isolation Hospital had charge of the case, and the man made a good recovery, which it is to be regretted he celebrated by getting very drunk on the day of his discharge, and consequently spent the next fortnight in Stafford Gaol."

Measles.—In the Administrative County, 309 deaths occurred from measles, as compared with 102 in 1901, equal to a rate per 1,000 of the population of 0·34, as against 0·11. Of these deaths, 257 occurred in the urban districts, or 0·38 per 1,000, and 52 in the rural districts, producing a rate of 0·22 per thousand.

In the following table corresponding figures are given for two quinquennial periods, and for the past four years:—

MEASLES.		Mean for 5 years. 1889-1893.	Mean for 5 years. 1894-1898.	1899.	1900.	1901.	1902.
Urban	Number of Deaths...	281	356	58	668	89	257
	Rate per 1000.....	0·51	0·59	0·08	0·95	0·13	0·38
Rural	Number of Deaths...	68	69	4	114	13	52
	Rate per 1000.....	0·29	0·30	0·01	0·48	0·05	0·22

The following extract from the report of the Medical Officer of Health of Biddulph is interesting as showing a novel method of dealing with an outbreak of measles with the paid assistance of Schoolmasters. He writes:—"On March 24th I was able to report that this somewhat extensive epidemic was being rapidly subdued by the same means which I have

previously employed successfully, and reported on. That is to say, after closing the school, I arranged with the schoolmaster to act as Inspector at a salary of £1 a week, with instructions to visit every infected house each day, and make sure that the children were being kept at home, and not allowed to mix with others. It is now the fourth or fifth occasion on which I have adopted this procedure for an epidemic of measles in one or other district, and in every instance it has proved markedly successful.

"I was anxious that the supervision should be maintained for another week or two; but the Council thought differently. The result affords further confirmation of my action. Supervision being withdrawn, the disease immediately commenced to extend, invaded Bradley Green, where two schools had to close (but this of itself, as I have often pointed out, did not effect any improvement), and the epidemic only died out in May; having cost seven lives.

"Another point I mention with regret. The Council was divided in opinion as to whether I ought to be allowed to act in emergencies as I had done in this case, by incurring expense on behalf of the Council. And though I am not aware what was the precise decision arrived at, I feel that I am crippled for the future in this matter; and for my own protection, in any new emergency, am bound to place this fact on record."

Under the heading "Zymotic Diseases," the Medical Officer of Health of Brierley Hill writes:—"Ten of these deaths were due to measles—an ever recurring visitation—which is an important, if not the most important, factor in keeping up the average death-rate and causing fluctuations, which make one year compare unfavourably with another. An epidemic occurred in May, and increased so rapidly that I had to close three of the largest schools in the district. This step is sometimes said to be of doubtful efficacy: but in my experience it is the only measure of precaution which is of any use, and is promptly followed by a decline in the disease.

Every two years with persistent regularity measles claims its victims in this district—amongst young children—mainly in consequence of the ignorance which prevails with regard to the fatality of this disease—its occurrence chiefly amongst the labouring classes, bad nursing, exposure, injudicious feeding, and the want of timely medical advice. Sooner or later the time will arrive when there will be a demand for the isolation of this disease—as in the case of other zymotic diseases. Isolation would not only safeguard healthy children, but would ensure proper attention and nursing. Then, besides the direct consequences, we find this disease invariably followed by an increased death-rate from whooping cough and pneumonia. Many of these deaths might be avoided if the children of the poor had more intelligent nursing, especially during a preceding attack of measles, too early exposure leading to many damaging complications, but more especially those of the respiratory organs.

"As a remedy I can only repeat the opinion I have expressed in previous annual reports. 'That there is a great want in this district for a good trained nurse who can be constantly at command, going in and out amongst the working class population, giving them advice and assistance in cases of illness,' and by such an effort I believe many young lives would be saved, although the result might not be apparent for some time."

Under this heading the Medical Officer of Health of Coseley writes:—"Fourteen of the deaths were of children under five years of age. It is, therefore, eminently desirable to protect children under this age from infection. It seems a pity that they should be encouraged to attend school before they have attained this age, seeing the increased liability to infection at school."

With reference to the attendance at school of infants from three to five years old, involving, I understand, an expenditure of about £1,000,000 a year to the country, I would ask, does the more than problematical benefit, from an educational point of view, justify such an expenditure with the

attendant injurious consequences from a health point of view? By bringing infants together in large numbers, the spread of infantile infectious diseases, such as measles and whooping cough, is, to say the least of it, encouraged, and it must be remembered that such diseases are far more fatal in infants than among children over five.

The Medical Officer of Health of Handsworth emphasizes the fact that measles is a dangerous infectious disease, and should be treated as such. In this district it would appear that the School Board Attendance Officers, by order of their Board, notify any cases of infectious diseases, including measles, which they may get to know of.

The Medical Officer of Health of Leek Urban District points out that measles is a very fatal disease, "principally on account of carelessness on the part of parents in allowing children affected to run about even when they are suffering from bronchitis or other complications." He also writes:— "In November your committee passed a resolution adopting the notification of the first case of measles in any house, provided that such notification was made within 24 hours; with the object of procuring as early as possible knowledge of the existence of measles in a dwelling, so that prompt administrative steps may be taken to secure the exclusion of all children living in such houses from the schools.

"The work of the schools has been very seriously interfered with by this outbreak, ten of the elementary schools having been closed for a period of about three weeks each, during the year, and in cases where closure was considered unnecessary the attendance has suffered considerably."

The Medical Officer of Health of Quarry Bank writes:— "From past experience, and especially from the results of daily observations of the school attendance from July 15th to 21st, I am convinced that school closure is the only practical check to measles and whooping cough in your district, and that I should have acted more wisely in closing the High Street Board Schools on the 11th. I have looked up the records for

the past ten years and find that measles, together usually with whooping cough, becomes epidemic in your district every other year. In many towns measles is placed among the infectious diseases compulsorily notifiable by the medical attendant and parents, but the results obtained have usually been so unsatisfactory as scarcely to warrant the extra expenditure. Notification without isolation would serve little purpose in your district, where people are crowded together, and many are too poor to provide proper accommodation and nursing at home. I therefore advocate early school closure in order to limit the number of families affected. Although you cannot afford to provide hospital accommodation for measles, in my opinion the provision of a nurse, or sensible, educated woman, to visit each house known to be infected, and to give detailed advice and help, would greatly limit the mortality from this disease, as most of its complications are largely avoidable, and usually death only results from the complications. The expense of engaging such a person during the short epidemic period would be trifling compared with the loss of life."

Like the Medical Officer of Health of Coseley, the Medical Officer of Health of the Borough of Stoke-upon-Trent refers to the question of infant school attendance upon the mortality from measles. He says, "practically all deaths from measles occur in children below five years of age, and the question whether anything is gained, in an educational respect, by allowing children under five years to attend school has been very much debated of late. They are certainly much more exposed to infection, and the gain from a public health point of view would be considerable if they were entirely excluded from elementary schools."

The Medical Officer of Health of Willenhall also questions the wisdom, in an educational sense, of sending infants under five to school, and refers to the remarks in his previous annual report on that subject which I quoted in my Annual Report for 1901.

The Medical Officer of Health of Lichfield Rural District points out that the striking feature of the zymotic death-rate was the exceptional mortality from measles. He says:—"It

would appear that with every fresh appearance of susceptible children this disease asserts itself, and it is sometimes extremely difficult to account for its simultaneous incidence in parts widely distant and apparently without communication. Isolation, for obvious reasons, either in the homes of the poor or in hospital, is equally impracticable, and the closing of schools would seem to be, with our present knowledge, the chief measure to be adopted with a view of arresting its spread."

Scarlet Fever.—In the Administrative County, 157 deaths occurred from scarlet fever, as compared with 162 in 1901, equal to a rate per 1,000 of the population of 0·17 as against 0·18. Of these deaths, 139 occurred in the urban districts, or 0·21 per 1,000, and 18 in the rural districts, producing a rate of 0·07 per 1,000. In the following table corresponding figures are given for two quinquennial periods and for the past four years:—

SCARLET FEVER.		Mean for 5 years. 1889-1893.	Mean for 5 years. 1894-1898.	1899.	1900.	1901.	1902.
Urban	Number of Deaths...	124	133	148	130	122	139
	Rate per 1000.....	0·22	0·22	0·21	0·18	0·18	0·21
Rural	Number of Deaths...	40	37	42	52	40	18
	Rate per 1000.....	0·17	0·16	0·18	0·22	0·17	0·07

Under this heading, the Medical Officer of Health of Bilston writes:—"There is always great difficulty here in dealing with this and other infectious diseases. Frequently parents will not isolate the affected children, nor keep their neighbours out of their dwellings. Several cases, too, have not been notified until the child was in the desquamating or 'peeling' stage, and it is easy to understand how the disease continues more or less permanently."

With reference to the question of the spread of scarlet fever, the Medical Officer of Health of Handsworth writes:—"In eight instances it was possible for persons living in one house to have received this infection of scarlatina from in-

fected persons who lived in another house. In 33 instances families continued to send children to school after one member of the family, kept at home or not of school age, had a scarlatinal rash. In seven instances children were sent to school soon after the development of a scarlatinal rash. In these cases the disease was revealed either by desquamation occurring later or by secondary cases arising in their homes. For instance, a boy had a rash on June 22nd, but continued to go to his school until July 17th, when a case of scarlatina arising at home was seen by a medical man, who notified the case on July 18th. No case had been notified in connection with this school from the week ending March 22nd until the week ending July 19th, when this boy's case was notified; in the two weeks following twelve cases in the same school arose. No such number of cases from one school had been found within two weeks in my recollection of the district. Mild cases, such as this one recorded, where medical advice is not sought, give us the clue to many mysterious outbreaks. In twelve instances, second cases arose in a house soon after an inmate had been discharged from the infectious hospital. Such cases seem unavoidable so long as we have no accurate knowledge of the length of time the infection lasts in every case."

The Medical Officer of Health of Rugeley records a prosecution in the case of the parents of a child for not notifying a case as follows:—"This case was not notified or seen by a doctor until a few hours before its death, and from enquiries made at my visit, I have little doubt that other cases occurred in the same house and the adjoining one. The parents of the child which died were, on my representation, prosecuted by the Urban District Council, convicted, and suffered a term of imprisonment for the offence."

The Medical Officer of Health of Smethwick, under this heading, writes:—"Looking at the extensive prevalence of the disease, and the inadequacy of the only practical methods of isolation, the mortality cannot be considered high, but

the effect on the industrial population has been somewhat seriously felt by many individuals who have been compelled by requirements, insisted on by either employers or work-people, to either absent themselves from work or to live in lodgings, over the long period of infectivity which the disease occasions. It certainly will be a great boon to the inhabitants of Smethwick generally when the arrangements for the provision of an isolation hospital are complete."

The Tamworth Authorities deserve credit for having isolated in hospital 70 out of 74 cases which were notified in the Borough.

In Tettenhall, it is said that the most extensive outbreak of scarlet fever ever experienced occurred during the year.

The Medical Officer of Health of Tipton writes :—"There have been 418 cases notified, and 28 deaths. This is the worst epidemic of scarlatina that has visited us for many years. It has been very general, no part of the district being free from it. The three later months have shewn the greatest number of cases. Fortunately the hospital has been freely used, and many of the worst cases have been treated there, thus minimising the danger of its spread, and by placing the children under skilled nursing has given them the best chances for recovery. We have had some help from the school teachers, but they might help us much more than they do by notifying us doubtful cases. Probably under the new Education Act this duty will be imperative to them. I did not consider it to be necessary to close any school. When an epidemic is general, as scarlatina has been, the results of closing schools in thickly populated districts have not been promising. Each case is visited by the Sanitary Inspector on the day that notice has been given, and parents have the chance of sending patients into the hospital without fee. The hospital was so full of scarlatina at one time that I was reluctantly compelled to refuse admission to any more cases. The Sanitary Inspector at his visit gives general instructions as to the best means of preventing the spread

of the infection, supplies gratuitously soap and disinfectants as required, and leaves printed instructions as to how to prevent the disease from spreading. In many cases he communicates with the school teachers, and advises them when to allow a child back to school."

The following remarks of the Medical Officer of Health of Wednesbury deserve the serious attention of his Authority:—"In striking contrast to the other diseases stands scarlatina—the cases of which numbered 272—a number not only large in itself, but far larger than the list of the two preceding years, in each of which the number was strikingly heavy. Moreover the deaths were disproportionately numerous. The following are the figures for the past three years:—1900, 154 cases with six deaths; 1901, 215 cases with three deaths; 1902, 272 cases with 13 deaths. These figures, it appears to me, cannot be lightly regarded, and it will be plain to everyone that the notification of scarlatina has not been of any practical use in stamping out the disease. It is necessary to examine the facts somewhat more closely, and under existing circumstances be it remembered that notification is only of value in so far as it enables disinfection to be carried out, by which I mean that no means have been taken to isolate the disease. Now disinfection has clearly not proved of much value, nor can its failure be a matter of surprise, and for this reason, that effective disinfection is impossible. What are the facts? In most cases the only nursing available is such as can be done by the mother of the patient, who also has the management of the household and family. The consequence is that the scarlatinal poison is scattered broadcast through the house, with the result that disinfection is ultimately required not for a room but for the entire house and its contents. This makes disinfection impracticable. Nor is this all, for cases must be remembered where the mother supplements her income by taking in washing or sewing. In other instances a portion of the clothing is regularly pawned. Need we wonder under these circumstances that the disease is not checked? I hope to find that the Council will agree with me that further means of dealing

with this dangerous affection are urgently called for. Of course I refer to isolation, and would urge the importance of providing a scarlatina hospital, to which all cases should promptly be removed, where the patient's house does not afford the necessary accommodation, or where it is impossible to provide a nurse for the case, who shall do nothing else and remain wholly apart from the rest of the household. I earnestly commend this important and pressing matter to the attention of the Council. What I have said on this subject, however, needs qualification. It must be understood that isolation in itself will not enable the Health Authority to successfully cope with an outbreak of the disease. The two measures called for are isolation and effective disinfection, systematically performed. The isolation needs to be carried out early in the case, and the disinfection of the house performed as soon as possible after the removal of the patient. To make this practicable, there can be no doubt but that an official is needed in a town like Wednesbury who should be responsible for all the disinfections. It must not be supposed that the ordinary duties of a sanitary inspector and this special work can be performed by the same person. Without a thorough system of disinfection, isolation is nearly useless, in so far as it checks the progress of an epidemic. Apart, however, from this main justification for the isolation of scarlatina, there is, of course, the undoubted fact that the nursing and treatment of the children can be more advantageously carried out in hospital than in the large majority of the houses. The following are the provisions that the Health Authority must make if scarlatina is to be controlled :—

"1.—A hospital for the reception of the cases.

"2.—An official who shall conduct systematic disinfections.

"3.—A station where the family of an infected house can be received for 24 hours whilst the disinfection of the house is thoroughly carried out.

"It cannot be too thoroughly realised that no half-hearted policy can succeed in coping with a disease like scarlatina.

Half measures only lead to useless expenditure. Let us look at the facts fairly and recognise that disinfection as at present performed in Wednesbury is a farce."

Under this heading the Medical Officer of Health of Wednesfield writes:—"The question of isolation at home is often impracticable, and the existence of one case is often followed by others. I may say I visit cases which are notified to me by other medical practitioners, and to show the way in which the disease can be spread—at a small house in the heart of the village, I found a child in bed with the complaint; another one playing on the bed; and two more downstairs; and not the slightest provision made either for disinfection or isolation. The only wonder is, that the disease is not more prevalent than it is!"

By way of illustrating further the means by which infection spreads, I quote the following from the report of the Medical Officer of Health of Willenhall:—"Cases of scarlet fever were numerous, but for the most part the type of disease was very mild. The incidence of the disease fell mainly, but far from exclusively, on the children who attended the Portobello Board Schools, especially the poorest of them, who lived in houses where isolation is practically impossible. A few illustrations will emphasize this statement and show how the disease spreads. A child who lived in Back Brickkiln Street had a rash on it on August 11th; was at school from August 15th to 22nd; was found freely desquamating on the 26th. Another who lived in Bridge Street, at school on August 22nd, was desquamating freely on the 26th, and no previous rash had been observed. Another child in Bridge Street at date of visit was playing in the kitchen with several neighbours' children. On September 24th, a child from New Street was at school with the rash on it, and five other children from Bennett Street, Brickkiln Street, New Street, and Bunker's Hill were at school on the same day, and were 'peeling' freely next day. The parents of one of these were unregistered milk vendors and cow-keepers, to whom I gave a caution and read out Section 17 of the Council's regulations relating to purveyors of milk. There

is no reason to believe, that in any of these cases the parents knew their children to be suffering from a contagious ailment at the time they were allowed to go to school."

Diphtheria and Membranous Croup.—In the Administrative County, 218 deaths occurred from diphtheria and membranous croup, as compared with 362 in 1901, equal to a rate per 1,000 of the population of 0·24, as against 0·41. Of these deaths 171 occurred in the urban districts, or 0·26 per 1,000, and 47 in the rural districts, producing a rate of 0·20 per 1,000. In the following table corresponding figures are given for two quinquennial periods and for the past four years:—

DIPHTHERIA.		Mean for 5 years. 1889-1893.	Mean for 5 years. 1894-1898.	1899.	1900†	1901†	1902†
Urban	Number of Deaths...	28	132	155	371	261	171
	Rate per 1000.....	0·05	0·22	0·22	0·52	0·40	0·26
Rural	Number of Deaths...	21	39	42	114	101	47
	Rate per 1000.....	0·09	0·17	0·18	0·48	0·43	0·20

† Including Membranous Croup.

The Medical Officer of Health of Bilston writes:—"At the beginning of the year your Clerk issued a circular letter to the medical practitioners of the district reminding them that the arrangement for providing, free of charge, for bacteriological investigation in supposed cases of diphtheria, enteric fever, and phthisis was still in force. In one instance—a case of diphtheria—this privilege was exercised, and the bacillus was reported to me as present. I can only repeat the hope that in all suitable cases medical men will avail themselves regularly of this method of confirming or correcting their diagnosis."

The Medical Officer of Health of Burslem writes:—"The following table shews the incidence and case mortality of diphtheria for the last five years:—

	Incidence per 1,000 living.	Case mortality.
1898 ...	·7 ...	60 per cent.
1899 ...	2·6 ...	41 ,, ,,
1900 ...	8·9 ...	24 ,, ,,
1901 ...	6·8 ...	23 ,, ,,
1902 ...	4·6 ...	17 ,, ,,

"The increasing use of antitoxin has been the chief means of reducing the case mortality during the last five years, and increased hospital accommodation would no doubt still further lower both the case mortality and the incidence of the disease.

"During the year only one swab was sent to Birmingham University for bacteriological examination in a case of suspected diphtheria. In this case the result of the examination was negative, as no diphtheria bacilli were found.

"Of the 186 cases of diphtheria, 160 were injected with antitoxin, and 25 of these proved fatal, a mortality of 15·6 per cent. Of the 26 cases in which antitoxin was not used 8 died, a mortality of 30·7 per cent., so that this year the mortality is twice as high when antitoxin was not used.

"Last year also shewed the good results of antitoxin, a mortality of 16·6 occurring when antitoxin was used, and 27·2 per cent. when not used.

"At present antitoxin is supplied free by the Corporation, only for those who cannot afford to pay for it, and only for the treatment of the person suffering from diphtheria.

"I should like to recommend that antitoxin be supplied free in all cases, not only for the patient, but also for prophylactic use for the other inmates of the house, and that a small fee be paid for each prophylactic injection."

Under this heading, the Medical Officer of Health of Coseley writes:—"The antitoxin treatment of this disease is a great success. In cases where it does not do good it is because it has been used too late, or in too small doses. I most strongly recommend that your Council should supply it free in the case of poor patients. The medical practitioners in the district do not take advantage of the arrangement whereby bacteriological examinations can be had in the case of enteric fever, phthisis, and diphtheria."

The Medical Officer of Health of Darlaston writes:—"During the year more advantage has been taken than formerly of the opportunities offered, by the co-operation of the County Council with the Birmingham University Authorities, for the

free bacteriological examination of the throat secretions, and I am pleased to be able to state that antitoxin has been more frequently used and with almost invariably satisfactory results."

The Medical Officer of Health of Longton, in a special report to the Local Government Board, which is reproduced in his annual report, states that the Corporation offer to supply antitoxin free to medical men in the town for use in the case of persons who cannot afford to pay for it, and they are encouraged to make use of it both as a prophylactic and curative; it would seem, however, that little advantage is taken of the offer.

The Medical Officer of Health of the Borough of Newcastle writes:—"Six cases occurred during the year, but there were no deaths. This, I think, is a strong argument, if it be needed, in favour of the general use of the antitoxin serum, for in 1901 14 cases were notified, 5 of which proved fatal, and in 1900 34 cases were notified, 15 of which proved fatal. It is my opinion that if the antitoxin serum be used fully in the early stage of this disease it may be looked upon almost as a specific cure.

"We supplied the antitoxin free of charge in those cases occurring amongst the poorer classes of the community. I think this is one of the wisest things the Council have ever undertaken."

Under the heading "Diagnosis of Diphtheria, Enteric Fever, and Tuberculosis," the Medical Officer of Health of Rowley Regis writes:—"The arrangement made by the County Council with the Birmingham University for the free bacteriological examination of secretions from patients supposed to be suffering from either of the above-named diseases still holds good. The necessary apparatus for the transmission of these secretions are sent to each medical man, and can always be obtained from me, together with supplies of antidiphtheritic or antistreptococcus serums and syringes, on application. I am pleased to say that a much more liberal use has been made of these advantages than in the previous year."

The Medical Officer of Health of Sedgley writes :—" The antitoxin treatment of this disease is now a proved success, especially if used at an early stage of the attack. I beg to recommend that it be supplied free for poor patients, and also to protect the other members of a household where this disease appears. This method has been adopted in several districts in the County."

The Medical Officer of Health of Smethwick writes :—"It is very desirable, in the interests of public health, that medical practitioners should avail themselves of the offer that has been extended to them for obtaining bacteriological proof of freedom from infection after the subsidence of the clinical symptoms and before the isolation of the patient is terminated. Experience has shown repeatedly during the past year that many persons who apparently have recovered from diphtheria have subsequently for a long time retained the infection in the throat, and no one should be allowed to resume work or school attendance, or mix with the other members of the family, until by these means it is proved he is free from infection. School children are already to some extent safeguarded, from the fact that no child is allowed to resume attendance at the school, after having suffered from the disease, until a certificate has been forwarded to the clerk by the Medical Officer of Health stating the house has been disinfected, and where possible this bacteriological proof of freedom from infection has been obtained."

The Medical Officer of Health of the Borough of Stafford states that the epidemic of diphtheria, which had prevailed since October, 1900, has now come to an end. In this town, also, antitoxin is extensively used both as a curative and prophylactic agent.

The Medical Officer of Health of the Borough of Stoke-upon-Trent writes :—After four years of much increased prevalence, this disease seems now to be steadily decreasing, and the death-rate is once again below that for the large towns. During the first five months of the year the disease was very

prevalent, and all the deaths occurred in those months. The disease was entirely absent during August and September. . . . . The Health Committee have supplied antitoxin, free of charge, for prophylactic use in the Borough. It has not been made use of to any extent during the year, and I would again advise that a fee be paid for each injection among those exposed to infection."

The Medical Officer of Health of Gnosall Rural District gives examples to show the value of antitoxin, both as a prophylactic and curative agent.

The Medical Officers of Health of Newcastle and Tutbury Rural Districts, in both of which districts antitoxin is supplied free, speak very highly of its value.

The Medical Officer of Health of Walsall Rural District writes :—" I notice that in a number of districts in the County the authorities provide antitoxin serum free to those who are unable to pay for it themselves. As this treatment undoubtedly diminishes very considerably the mortality of this disease, and as your district is almost entirely inhabited by people of the working class, I would suggest that the same privilege should be extended to them."

The Medical Officer of Health of Wolstanton Rural District writes :—" Antitoxin has been more freely used this year than in previous years, but I hope to see it more freely used in the next. I should suggest to the Council the advisability of providing the antitoxin free of charge for such cases who from their circumstances are unable to provide it themselves."

Whooping Cough.—In the Administrative County 181 deaths occurred from whooping cough, as compared with 442 in 1901, equal to a rate per 1,000 of the population of 0·20, as against 0·50. Of these deaths, 154 occurred in urban districts, or 0·23 per 1,000, and 27 in rural districts, producing a rate of 0·11 per 1,000. In the following table corresponding figures are given for two quinquennial periods and for the past four years :—

WHOOPING COUGH.		Mean for 5 years. 1889-1893.	Mean for 5 years. 1894-1898.	1899.	1900.	1901.	1902.
Urban	Number of deaths....	257	240	236	208	386	154
	Rate per 1000.....	0·46	0·40	0·34	0·29	0·59	0·23
Rural	Number of deaths....	54	54	58	50	56	27
	Rate per 1000.....	0·23	0·23	0·25	0·21	0·24	0·11

Enteric Fever.—This disease, which must be looked upon as entirely preventable, caused 117 deaths, as against 136 in 1901, equal to a rate of 0·13, as compared with 0·15. Of these, 92 occurred in urban and 25 in rural districts, equalling a rate respectively of 0·14 and 0·10. In the following table corresponding figures are given for two quinquennial periods and for the past four years :—

ENTERIC FEVER.		Mean for 5 years. 1889-1893.	Mean for 5 years. 1894-1898.	1899.	1900.	1901.	1902.
Urban	Number of deaths....	98	124	183	121	116	92
	Rate per 1000.....	0·17	0·20	0·27	0·17	0·18	0·14
Rural	Number of deaths....	30	19	25	26	20	25
	Rate per 1000.....	0·12	0·08	0·10	0·11	0·08	0·10

As showing the need for, and the advantage of isolation in such cases, I quote the following from the report of the Medical Officer of Health of Biddulph, which is reproduced from his monthly report to his Council, dated Sept. 29th :—

" ' A case of enteric fever was notified on September 12th at Childerplay. The patient had then been ill eight days. Up to the 4th, he had been working in one of the mills at the forge. There were nine children at home, ranging from 18 years to 16 months ; there are only two bedrooms ; and there were three beds in the room in which the patient was lying.'

" The patient was stated to be too ill to bear removal to hospital. The following is from my report, dated November 20th : ' On the 6th inst. I paid a special visit to the district,

to investigate an outbreak of enteric fever. You will remember that on September 29th I reported a case, notified on the 12th, and at the same time drew attention to the dreadfully overcrowded state of the house, where two adults and nine children were occupying two bedrooms. Had the case been removed to hospital, or in the alternative had the overcrowding been abated, the subsequent story would have been less sad. The lad in question has recovered, but no less than *seven* other members of the family have contracted the disease from him, and have had to be removed to the hospital, where one child has died, and the mother and five children remain in hospital.

"'It appears that the family visited Blackpool on the Wakes Wednesday, August 20th. The boy gathered some mussels from a 'pipe' which ran across the fore-shore. These were brought home and eaten. On September 6th the boy went to the doctor, on the 10th was confined to bed, and on the 12th, as before stated, was notified as having enteric fever. On October 29th, between six and seven weeks after, two children were taken ill, and removed to hospital; on the 30th two more (of which one died on November 7th); and on the 31st one more. On November 6th another child was removed, and, finally, the mother herself on November 15th.'

"'With regard to the hospital, its great value has been amply demonstrated. But for it, there is no human doubt that there would have been even more cases, spreading probably beyond the first house; and more deaths (from inadequate lodging and nursing). Two trained nurses have necessarily been employed, and the expense to the Council will be heavy. This is always the case where a community like Biddulph persists in ignoring warnings, and refuses to make use of the means of isolation provided, except under dire compulsion. I can only hope that the case which I have detailed may prove an object-lesson, not to members of the Council only, but also to the whole of the inhabitants at large, who I trust may have an opportunity of reading my report through the courtesy of the Press, and by permission of the Council.

" ' I have seen the Medical Officer of Health for Blackpool, and he tells me the pipes referred to are sewers, and that the mussels were undoubtedly sewage-polluted. Suspicion was already attaching to them, and at the time of my interview he had already employed men to scrape off and remove all remaining mussels from the pipes.'

Further on in the report the Medical Officer of Health states:—" . . . . I am clear in my own mind, from the refusal of the first case to go in, that the subsequent consent of the other members of the same family was only given because of the sudden occurrence of a number of cases, which even the most ignorant person could see it was impossible to effectually treat in a small cottage; in other words, the hospital was used as a convenience for the treatment of these cases under exceptional circumstances of domestic pressure; and only in a very minor degree because any of the persons concerned were advocates of the principle of hospital treatment. It will be interesting to note whether the next case of enteric fever, whenever it occurs, will consent to removal and hospital isolation."

In commenting upon an outbreak of enteric fever at Coseley, the Medical Officer of Health calls attention to certain property as follows:—" Of these latter the majority were in an insanitary state, three of them being unfit for human habitation. (One had previously been condemned by me), some of them were overcrowded, and in others the drainage was defective."

It is most disappointing to see, from the words in parentheses in the last sentence, that in the case of one of the houses attacked the property had previously been condemned by the Medical Officer of Health.

Later on in the same report the Medical Officer of Health writes:—" The disappearance of this disease cannot be looked for until all houses are provided with a pure water-supply, and the fouling of the soil in their neighbourhood is prevented by the provision of an impervious surface in back yards and entries, and a more cleanly method of storage and removal of excremental and house refuse."

The Medical Officer of Health of Darlaston writes:—"Although the great reduction in the number of cases notified, when considered in the light of last year's visitation, constitutes the most welcome feature of this report, this satisfaction is considerably modified by the marked increase in the number of deaths that occurred (in proportion to the notifications received) owing to the existence of a severer type of the disease.

"The intensity of the epidemic of 1901, in the presence of so many privy-middens, led me to anticipate a wide recrudescence this year, inasmuch as before the adoption of pails for the reception and removal of the evacuations, the careless disposal of the latter tended to greatly increase its prevalence by the establishment of many additional centres of infection.

"It is, however, in great measure due to the unseasonable climatic conditions that prevailed during the summer that we must ascribe the comparative immunity we have enjoyed."

The Medical Officer of Health of Handsworth, in commenting upon one of the cases which occurred in that district, says:—"One of the former cases, whilst working at a seaside town, had a large feed of cheap oysters on December 10th, 1901, and felt 'very sick and seedy' for the next three days. On December 21st he came home and developed typhoid fever. The Medical Officer of Health of the town was notified of the occurrence, and investigated the oyster beds from which the oysters had come. The beds were in such a position that they were 'bathed in sewage.' He made a special report to his Council, and pointed out the defects and their remedies. As the beds were not in his jurisdiction he could only advise that the sale of oysters from them should not be permitted."

The Medical Officer of Health of Quarry Bank writes:—"Since the abolition of well-water as the principal water-supply, in 1895, your district has enjoyed relative immunity from the disease. It is not always possible to trace the source of infection. The case in Amblecote was presumably infected from a neighbouring patient and playmate in the

adjoining district. The danger of untrapped drains, and in fact of drains of any sort opening inside the dwelling, is illustrated by the cases in New Street and Bower Lane. The remaining case in High Street shows the necessity of protecting the home and premises from dirt and refuse of any kind, also from bad surface-drains, stagnant slop-water, and privy-midden. That the latter are air and soil polluters is obvious, and I would urge the Council to press the matter of proper water-closets to the extinction of privy-middens wherever feasible.

"*At the same time the utmost care should be taken that all sewers, drains, house connections, and water-closets are of the right materials, properly fixed, and well ventilated; otherwise there is a grave risk that these agents may give rise to the very dangers they are designed to prevent.*"

The Medical Officer of Health of Smethwick writes:—"Few practitioners have availed themselves of the opportunities afforded them of obtaining bacteriological confirmation of their opinion, but, generally speaking, the diagnosis appears to have been clear from the clinical signs."

The Medical Officer of Health of the Borough of Stoke-upon-Trent, in commenting upon a death-rate from enteric fever of 0·06, states that it is the lowest on record, and with reference to the need for hospital provision for isolating such cases, he says:—"Enteric fever is an infectious disease, and the difficulty of nursing patients suffering from this disease in a general hospital, and at the same time preventing its being contracted by others, is considerable. Every year increases the conviction that accommodation should be provided in special wards, and this, of course, should be done at the Joint Isolation Hospital at Bucknall. The only reason for retaining these cases in a general hospital is to provide means of training for nurses. This is not a reason which should weigh with the Sanitary Authority of a district, and we should, by providing special accommodation for these cases, make it possible for the general hospital to exclude

them almost entirely. I understand that at the North Stafford Infirmary only four patients suffering from enteric fever are allowed in each ward at the same time.

"There is no ambulance available for the removal of enteric fever cases. I have brought this fact to the attention of the Health Committee on more than one occasion. The patients at present have to be removed in a cab, in which it is impossible to place them in a horizontal position; this means considerable unnecessary risk to the patient."

The Medical Officer of Health of Tipton writes:—"We cannot be free from enteric fever until we change our present system of excrement removal, and extend our sewerage system. So much of the ground around the dwelling houses is sewage sodden, and leaking middens, often overful from the rain-water which comes from the roofs, soak into the ground and act as foci of infection if by any means the soil becomes in the least degree infected by the typhoid germ. The number of cases has, however, very greatly diminished during the last few years, and we have substituted the South Staffs. Water-supply for the well-water wherever a case has broken out."

The Medical Officer of Health of Blore Heath Rural District writes with reference to Aston village:—"The unsanitary state of this village, which has been repeatedly brought to the notice of your Council, through the frequent occurrence of enteric fever, is now being attended to. A system of drainage is nearing completion, and a supply of water for drinking purposes is to be obtained from springs in the neighbourhood."

The Medical Officer of Health of Cannock Rural District, in commenting upon cases which occurred during the year, states that they were mostly attributable to drainage defects and polluted well-water supplies.

In the Lichfield Rural District, it is stated that the disease was almost completely absent during the year.

Diarrhœa.—In the Administrative County, 305 deaths occurred from diarrhœa, as compared with 738 in 1901, equal to a rate of 0·34, as compared with 0·83. Of these, 257 occurred in urban and 48 in rural districts, equalling a rate respectively of 0·38 and 0·20. In the following table corresponding figures are given for two quinquennial periods and for the past four years:—

DIARRHŒA.		Mean for 5 years. 1889-1893.	Mean for 5 years. 1894-1898.	1899.	1900.	1901.	1902.
Urban	Number of deaths...	405	581	946	631	645	257
	Rate per 1000.....	0·73	0·97	1·39	0·90	0·99	0·38
Rural	Number of deaths...	89	93	122	87	93	48
	Rate per 1000.....	0·38	0·41	0·53	0·37	0·40	0·20

I have referred elsewhere to the remarkable absence of summer diarrhœa, and in most of the reports special reference is made to this, the cause being attributed to climatic conditions unfavourable to the prevalence of the disease.

The Medical Officer of Health of Handsworth, under this heading, comments upon the need for cleanly surroundings of houses and the preservation of open spaces at the rear of dwellings. As regards the latter point, he refers to the erection of authorized and unauthorized temporary structures, and says:—"When, also, the uses to which these erections are put are considered, the danger to health is still more manifest. For they are used to keep pigeons, poultry, etc., thereby giving rise in many cases to serious nuisances, the ground around being saturated with filth. In many of the newer houses the open space at the rear is barely sufficient, without encroachment upon it by fowlpens, etc."

The Medical Officer of Health of the Borough of Newcastle states that the town is comparatively free from this disease, and says: —"Probably the use of sterilized milk for the feeding of infants has assisted in improving the infantile and zymotic death-rates, for in my opinion one of the chief factors causing this disease is the injudicious feeding of artificially-fed infants

and the general ignorance with regard to the proper feeding of infants and young children. At the same time, it is very satisfactory to report the improvement on the last few years' record. I trust the improvement may continue."

The following pertinent remarks of the Medical Officer of Health of Tipton should not escape the notice of the Authority:— "I think that, generally, children are not kept so clean as they formerly were. I have met with more personal filth than formerly. The prevailing custom in new houses of having a front room unoccupied and built for show, cramps up the living portion of the house, and does not allow of a free current of air through the house. There is also much less air space around the newly-erected houses, and the closets are in most cases so built that it is impossible to enter the small yards without inhaling the unhealthy smell from the open door of an ordinary privy."

In commenting upon the absence of diarrhœa in Willenhall, which is attributed to climatic conditions, the Medical Officer of Health says :—" The Council, however, cannot rely upon again having so much help from atmospheric conditions. It therefore behoves them to alter as far as possible the local conditions, which tend to develop the specific poison of diarrhœa in the presence of moisture and heat somewhat greater than that of last summer. The new bye-laws, numbers 78 to 83, relating to buildings, and 14 and 8, relating to nuisances, including provision for the disposal of liquid filth by drainage to the sewers, give ample powers to effect improvements. They should also as far as possible abolish privy cesspits and substitute washdown closets, and discourage the putting in of more waste-water closets."

Cholera.—No mention is made of this disease in any of the reports under review.

Erysipelas.—Little reference is made to this disease in any of the reports.

Puerperal Fever.—In the Administrative County, 38 deaths were attributed to puerperal fever, as against 41 in 1901. In only a few of the reports is any special reference made to the circumstances attending the cases.

As regards the new Midwives Act, the Medical Officer of Health of Quarry Bank writes :—" By the passing of the Midwives Act, 1902, midwives will have to be registered and will be subject to greater control.

" There is no doubt that much illness and often death has been occasioned by the stupendous ignorance of many midwives (there are exceptions), and the Act is intended to rectify this. I think much could be said in favour of the provision of proper attendance by the State, for the labouring and artisan classes, whose poverty so often leaves parturient women and their offspring to the mercy of irresponsible attendants."

The Medical Officer of Health of Rowley Regis, where seven cases were reported, three of which proved fatal, says :— " Possibly when the Midwives Registration Act comes into full operation these cases will be less frequent."

Influenza.—Although it would appear from the reports under review that influenza again prevailed in most parts of the County, the type seems to continue to be milder as a rule than was the case in previous years.

Diseases of the Respiratory Organs.—Under this heading, which does not include phthisis, 2,726 deaths occurred as compared with 2,626 in 1901. None of the reports contain any remarks regarding these diseases which call for special reference.

Phthisis.—In many of the reports considerable prominence is given to the question of the causation and prevention of phthisis. No fewer than 809 deaths have resulted from this disease during the year.

The Medical Officer of Health of Biddulph writes :— " Each of my Councils has during the year repeated the information to the medical practitioners within its area that it will pay a fee for the voluntary notification of cases of phthisis,

similar to that payable under the Notification Act. The original circular was issued in 1901. The result has been very disappointing. . . . . It would therefore appear that the proposal has not been received with favour by the medical profession ; and the effort has proved almost abortive. I am not able to say whether there was really any active opposition ; or whether it has been nothing more than sheer indifference and forgetfulness."

The Medical Officer of Health of Bilston calls attention to a death-rate from phthisis of 1·7, which is said to be the highest during the past ten years, and says :—" A gipsy in his tent, small though it be, is much better housed than many of the people who live in small houses, and who seem to be afraid of pure air and cleanliness."

The Medical Officer of Health of Leek Urban District writes :—" Whenever notice of death from phthisis has been received the premises have been at once disinfected, but as the notification is not infrequently overlooked, I have prepared post-cards to be forwarded to the sanitary office by the registrar on the registration of every death from phthisis, so that disinfection may be effected in every case."

The Medical Officer of Health of the City of Lichfield writes :—" I would call the attention of your Council to the number of deaths due to phthisis, which are more than last year, although the general death-rate is lower. I feel that this is in a great measure due to the insanitary conditions of life, overcrowding, defective ventilation, &c., in which most of these cases live, and I would suggest for your consideration the desirability of having phthisis made a notifiable disease, that the necessary precautions may be taken to destroy the infection, improve the sanitary conditions, and so make an effort to stop the spread of this disease through communication from one person to another."

The Medical Officer of Health of Longton, having quoted from the writings of Dr. Koch with reference to the prevention of phthisis, says :—" I suggest that you should take the

initiative in this matter, and suggest a conference of the authorities of the Pottery towns to consider the advisability of adapting the small-pox hospital at the end of the present epidemic for the purpose of a home for advanced cases of phthisis. In the meantime you might help on the education of the public in the realization of the proper course to adopt in treating consumption by issuing a leaflet such as is supplied by the National Society for the Prevention and Cure of Consumption. I would advise also the adoption of voluntary notification of phthisis until public opinion is sufficiently educated to make it compulsory. Wherever this voluntary notification has been adopted, it has been followed by good results. At the present time, whenever I know of a case of death from phthisis, I easily persuade the people to have the room disinfected and thoroughly cleaned down, and this precaution could be extended if we had voluntary notification. A notice posted up in all public buildings such as the Court House, Town Hall, Market and Free Library, forbidding spitting, except in special spittoons, would be advisable, and also a recommendation from you to all publicans and shopkeepers asking them to do the same."

The Medical Officer of Health of Quarry Bank writes:— "The recent crusade against public and indiscriminate spitting has undoubtedly done more to enlighten the public as to the danger of infection in consumption than has anything else since the discovery of the tubercle bacillus. In my reports for 1900 and 1901 I went fully into the causes and prevention of phthisis from the sanitarian's standpoint, and would ask those who are interested to refer to those reports. In all cases of death from consumption I now request the Sanitary Inspector to disinfect the bedroom of the deceased as soon as is practicable. The value of fresh air and sunlight cannot be overstated, and if the Council will prosecute its present policy of dealing with dilapidated, damp, and otherwise insanitary dwellings, a powerful blow at consumption will have been dealt. There are still many houses very damp from want of spouting. You will doubtless recollect that the Local Government Board declined to sanction

your petition that phthisis should be made compulsorily notifiable as an infectious disease. You will, I trust, repeat that petition year by year, holding, as I do, the opinion that to deal satisfactorily with the enemy, it is better to know where it is located. My conviction is that not only will notification of consumption become in a few years generally compulsory, but that indiscriminate spitting will also be an offence punishable by law, as already is the case in some towns and counties."

The Medical Officer of Health of Rowley Regis writes:—"During the last year the medical practitioners in the district have availed themselves much more extensively of the facilities afforded by the Staffordshire County Council for the free bacteriological examination of secretions from suspected cases. The antipathy against disinfection after this disease is not so marked as formerly. Fourteen out of the sixteen cases reported have acquiesced in the Council's decision."

The Medical Officer of Health of Smethwick writes:—"Medical practitioners are invited to utilize the bacteriological aids to diagnosis afforded by the County Council of Staffordshire, and to some extent they do so. After the death of a person from phthisis, a letter, signed by the Medical Officer of Health, is sent to the occupier of the house recommending disinfection, and asking for a reply. I am glad to say that there is less disinclination to have this done.

"The leaflets issued by the National Society for the Prevention of Consumption are furnished to suitable persons on application at the office of the Sanitary Inspector."

The Medical Officer of Health of the Borough of Stoke-upon-Trent writes:—"Through the arrangements made by the County Council with the University of Birmingham, medical men in the borough have facilities for bacteriological diagnosis in doubtful cases; they have been taken advantage of on several occasions.

"I regret to have to report that no steps have yet been taken to further combat tuberculous diseases. I brought the matter to the attention of the Health Committee in 1901, and I can only again urge that something should be done without delay.

"In many places throughout the kingdom voluntary notification is now in force; this might usefully be adopted here. Notices might be posted up prohibiting spitting, and booklets might be distributed when needed.

"The Potteries Electric Traction Company have notices in their cars prohibiting spitting. The North Stafford Railway Company have also put up notices at the station.

"There is a balcony at the North Stafford Infirmary for the treatment of phthisis, and balconies are being erected at the Stoke-upon-Trent Union Workhouse Hospital. Surely the Sanitary Authority for the Borough ought not to be behindhand. During the past year more deaths were caused by tuberculosis than any other disease except bronchitis."

In commenting upon 25 deaths which occurred from phthisis, the Medical Officer of Health of Willenhall says:—"As the real cause of consumption is a parasite, which can be pursued and annihilated, and it is chiefly conveyed from one person to another through the medium of sputum coughed up by sufferers from the disease, I suggested in my annual report for 1899 that leaflets similar to a leaflet appended thereto be printed and distributed. I now suggest that as a means of education of the general public, in addition to those suffering from the disease, handbills such as that, or such as have been distributed in Manchester, should be printed and delivered at every house in the town. Whilst, however, it is one thing to destroy the parasite which may infect others, it must be borne in mind that the overcrowded dwellings of the poor are 'the real breeding places of tuberculosis,' that 'it is out of them the disease always crops up anew, and it is to the abolition of these conditions that we must first and foremost direct our attention if we wish to attack the evil at its root.'"

The Medical Officers of Health of Tipton and Wednesfield both suggest that cases of phthisis should be notified, while the Medical Officer of Health of Blore Heath Rural District states that cases are now voluntarily notifiable in that district.

Isolation and Disinfection.—In most of the reports, both for urban and rural districts, this question is very fully dealt with.

In the table at the end of this Report, headed "Result of the Working of the Compulsory Notification of Infectious Diseases Act," figures are given showing to what extent isolation hospitals are made use of in districts where they exist. It will be noticed that the use made of them varies very considerably, and in most cases it is evident that they can be of little practical value in curtailing epidemics—the chief purpose for which they are intended. In some instances it would appear that patients object to go to them on the ground that the accommodation provided is not satisfactory.

The percentage of infectious cases isolated in urban districts where hospitals are available and have been available during the year, varies very much—from *nil* in Amblecote, Brownhills, Darlaston, Wednesbury, Wednesfield, and Willenhall, to 87·5 and 83·3 in Tamworth and Biddulph Urban Districts respectively.

As pointed out in my introduction to this Report, the existence of small-pox in the county has compelled the Sanitary Committee to devote their attention this year, under this branch of public health work, chiefly to securing the provision of adequate accommodation for isolating cases of that disease—efforts which have been attended with marked success—and, for the time being, the question of general isolation hospital provision has been allowed to rest. I anticipate, however, that in my next Annual Report I shall be able to show that considerable progress has been made in the latter direction.

In view, therefore, of the anticipated revival of interest in the question, I propose to quote pretty fully from the reports under review as to the opinions of the District Medical Officers of Health upon this important subject.

The Medical Officer of Health of Audley points out that the District Council are negotiating with the Wolstanton District Council with a view to the joint use of the Bradwell Hospital being acquired.

The Medical Officer of Health of Bilston, having referred to the negotiations (since completed) for forming a joint area for providing small-pox hospital accommodation, says:—"The question of erecting a permanent hospital for infectious diseases, other than small-pox, is one also that is of supreme importance. I venture to re-assert that a similar arrangement—of course for a smaller number of districts and for an area not so extensive—will undoubtedly prove the best, and ought to be adopted at the earliest convenient opportunity."

The Medical Officer of Health of Burslem writes, with reference to the isolation of diphtheria, scarlet fever, and enteric fever, as follows:—"The fact that only 20 per cent. of these cases has been removed during the last two years cannot be considered satisfactory. The Town Council recognise this, and are considering whether to build their own fever hospital or to join with Wolstanton and Tunstall in extending the Bradwell Sanatorium."

The Medical Officer of Health of Coseley writes:—"Now that the question of provision for the isolation of small-pox has been settled, I hope that the provision of an isolation hospital, with proper disinfecting apparatus and other appliances, for scarlet fever and other general infectious diseases will be undertaken without delay.

"These diseases cause more deaths and suffering than small-pox, and it is more logical to provide isolation for them, seeing that no protection comparable to vaccination is available in their case."

In discussing an outbreak of scarlet fever in Darlaston, the Medical Officer of Health concludes as follows:—"While school attendance has an undoubted influence in its dissemination, I am still of opinion that thoughtless visiting between infected houses contributes more than anything else to its spread, and although home isolation in poor houses is attended with great difficulties, much might be done to diminish its prevalence were people less indifferent to its infectious nature and more amenable to medical advice.

"The need for a proper isolation hospital is real and pressing, and has been repeatedly urged.

"The consummation of the scheme, to which reference has already been made in a former report, would come as a welcome boon to this and the other townships concerned."

With reference to the isolation of cases of scarlet fever and diphtheria, the Medical Officer of Health of Fenton writes:—"There is no prospect of successful isolation in the majority of the houses, and since more cases have been removed there has been a great reduction in the number of second and third cases occurring in the same house."

Later in the same report he refers to the assistance rendered by the School Attendance Officer, as follows:—"Mr. Quirk, the School Board Attendance Officer, when visiting houses for the purpose of investigating the causes of absence from school, has frequently called my attention to cases of sickness which have proved to be infectious, and which, without his visit, would not have been discovered, no doctor having seen the cases, and the parents professing not to know the nature of the disease; these undetected infectious diseases are the most likely to cause trouble, isolation not being carried out."

It is satisfactory to find from the report of the Medical Officer of Health of Handsworth that the District Council have now an efficient disinfecting apparatus of their own.

The Medical Officer of Health of Leek Urban District writes:—"The question of hospital accommodation is now under the consideration of your committee, to whom I have pointed out the necessity of increased accommodation, and especially the desirability of providing small observation wards in which cases of a doubtful nature could be temporarily isolated until their exact diagnosis had been made; also, the provision of a suitable discharging room, so that patients may be bathed, clothed, and discharged without coming near the wards. Other requirements suggested were *(a)* 'a modern steam disinfecting apparatus for the disinfection of bedding,

&c.,' *(b)* 'a light hand-cart for the conveyance of infected bedding, &c., from the house to the disinfector and back again home.'

"I may add that the majority of these suggestions were made by the County Medical Officer in a Report made by him to the County Sanitary Committee Nov. 11th, 1893."

The Medical Officer of Health of the Borough of Lichfield writes:—"A trained nurse has been permanently engaged to superintend and manage the nursing at the isolation hospital. Other improvements are being considered by the Hospital Committee, which will, if carried out, very greatly aid the treatment and separation of infectious diseases."

The Medical Officer of Health of the Borough of Newcastle writes:—"The present hospital is ample for our needs, it is up-to-date in every respect, and now that the system of supplying nurses is complete, and the furnishing and equipment in the hands of the committee, I think we may consider our hospital as good as any in the kingdom. Our new steam disinfector is highly satisfactory, and has been most useful."

The Medical Officer of Health of Quarry Bank writes:—"The hospital was for some time closed against scarlet fever on account of this case, and, later, because it was thought advisable to reserve it for small-pox, which was then prevalent in several parts of England. It is evident that further accommodation is needed if we are to isolate these three diseases."

The Medical Officer of Health of Rugeley writes:—"It is open knowledge that the Lichfield Rural District Council is desirous that your Urban District Council should join it in adapting the present building at Curborough, employed by it as an isolation hospital, and that it intends to make formal application to you to this effect. In taking this matter into your consideration, I would urge you to consider carefully the three minimum requirements before-mentioned, and also the alternative arrangement of adhering to the County Council scheme, which would provide a newly-built, up-to-date hospital, with all modern appliances for sanitation, ventilation,

etc., and as to the suitability of which there could be no question in the near future, and therefore no risk of further additional burthen, on this account, on the already overstrained capabilities of the ratepayers."

The Medical Officer of Health of Sedgley writes :—"The cost of notification during the past year amounted to £11 15s. 0d. The value of notification is shown by the small-pox cases, where prompt isolation in hospital followed, and with most satisfactory results. A similar provision for other infectious diseases, chiefly scarlet fever, tpyhoid, and diphtheria, will doubtless arise a few years hence, under the Isolation Hospitals Act of 1901, now in the hands of the County Council. I see no reason to alter my recommendation of previous years, viz., that efficiency and economy can best be secured by combining with neighbouring localities for hospital purposes."

In discussing the question of prevention of infectious diseases, the Medical Officer of Health of Smallthorne says :—"I had hoped that by now the possession of an infectious diseases hospital, also a complete disinfecting apparatus, would have become an accomplished fact, but am sorry to say that such is not the case, and that we have still to rely on the imperfect isolation which is possible in the houses of those attacked for the arrest of the spreading of infectious diseases. The arrest of an outbreak of these diseases depends upon the early knowledge of the first cases and their complete isolation ; in your district this at present is an impossibility."

In the case of Smethwick, it is disappointing to find from the reports of the Medical Officer of Health that the disinfecting apparatus still in use is of an old type, which is of more than doubtful utility. As regards hospital provision in this district, he writes :—"I have attended, with a deputation of the Health Committee, several conferences at Stafford and Wolverhampton, with the object of forming a conjoint hospital for the isolation of small-pox, in conjunction with various South Staffordshire Sanitary Authorities. The scheme is practically perfect, and when complete, and a new small-pox

hospital has been erected, the Health Committee, who have the matter well in hand, will be free to at once set about the accomplishment of the provision of the long wished-for hospital for the isolation of scarlet fever, &c."

As regards the Hanley, Stoke, and Fenton Joint Hospital, the Medical Officer of Health of the Borough of Stoke-upon-Trent writes:—"In my last annual report I pointed out that the space allowed per head was much less than what is considered necessary in hospitals for infectious diseases. The matter is of importance, in considering both the health of the patient and the health of the community. Overcrowding tends to increase the complications of the diseases, and it also encourages the occurrence of return cases. It exposes the patients to unnecessary risks, and renders the hospital less effective as a preventive agent, the patients being more liable to carry infection out of the hospital when discharged."

The Medical Officer of Health of Stone Urban District writes:—"This hospital, which was originally purchased some years ago to meet an expected epidemic of small-pox, has been since utilised for scarlet fever cases; but in view of the threatened outbreak of small-pox again in our midst, it is proposed to reserve it for such cases only.

"It is suggested, later on, to remove the present building to a suitable site for small-pox cases further removed from any population, and to build a new general isolation hospital in the present field."

The Medical Officer of Health of the Borough of Tamworth refers to certain negotiations with the County Councils of Staffordshire and Warwickshire, terminating in an application by the Corporation to the former Council for a contribution towards the expenditure from the County funds, and sets forth the conditions upon which the Sanitary Committee of the Staffordshire Council were prepared to recommend the payment of such contribution, as follows:—

"1. The provision of a six-bed block divided into two wards of three beds each, the space per bed to be on a basis of 2,000 cubic feet, and the wards to be aërially disconnected.

"2. The sewage precipitating tank being situated on the only conveniently available position on the site for the erection of the additional block, other means of disposing of the sewage must be provided.

"3. The provision of a cart for conveying clothing and bedding for disinfection.

"4. The re-arrangement, not necessarily structural, of the administration block, in order to provide sufficient sleeping accommodation for the nurses and servants in that block.

"A further suggestion was the provision of a convalescent ward for scarlet fever cases."

It is to be regretted that the Joint Hospital Board decided not to comply with these conditions, especially as it was suggested that the structural additions need not necessarily be of an expensive permanent character. For a comparatively small expenditure the efficiency of the hospital would thus have been greatly enhanced, and the contribution which the Staffordshire constituent Authorities would then have received would have more than compensated for the outlay.

The Medical Officer of Health of Tettenhall points out that the accommodation available, by arrangement with the Corporation of Wolverhampton, proved quite inadequate.

The Medical Officer of Health of Tipton writes :—"The hospital has been very popular, and it is not so difficult as it was formerly to remove the infected patients. Some have voluntarily applied for admission, and all have been most satisfied with the care and good treatment which has been given them. When the hospital was very full I employed two trained nurses, as I found it impossible to carry on the nursing properly with only one nurse. Our great difficulty was in March, April, May, and June, when we had cases of scarlatina and typhoid fever under treatment at the same time. It was impossible to isolate the two diseases, with our present arrangements, in a satisfactory manner. I hope, however, that when the hospital is empty we shall commence the alterations, which have had the unofficial sanction of Dr. Reid, the County Medical Officer, and

so be enabled, with a very short notice, to isolate typhoid fever, scarlatina, and diphtheria in separate wards, if it should happen that circumstances compel us to have the separate diseases under treatment at the same time. A great difficulty has arisen from our need of a proper ambulance car for the removal of patients from their homes. Many mothers have strongly objected to the removal car which the contractor uses for this purpose. Some have insisted on carrying their children in a blanket to the hospital—not a very good procedure, and one that places them in peril of prosecution and a fine. This want is to be remedied when a suitable shed can be built for its housing, and forms a part of the plan which I trust will be carried out when the hospital is empty and workmen are able to be about the place with safety."

The Medical Officer of Health of Wednesfield writes :— " The hospital, although it has served a useful purpose in the past, can hardly be considered adequate for the increasing wants of the future, and the Council will soon have to consider a scheme for the isolation of infectious diseases other than small-pox."

In commenting upon an outbreak of scarlet fever, the Medical Officer of Health of Willenhall writes :—" Until the Council can provide an isolation hospital for infectious diseases other than small-pox, your officers cannot do more than they now do. If able to entertain the provision of such a hospital, the scheme appended to my annual report for 1899, prepared jointly by me and the Medical Officers of Health for Bilston and Darlaston, is to my mind still suited to the requirements of the districts concerned."

The Medical Officer of Health of Cannock Rural District writes :—" I believe it is probable that some definite steps will be taken in the current year to deal with the question of hospital provision for isolation. Many difficulties have cropped up in various selected sites, but it is the absolute intention of the Council to provide for such isolation."

In Cheadle Rural District it is stated that a site for an isolation hospital has been acquired and that plans are being prepared for a hospital of 16 beds.

The Kingswinford Rural District Council have, it is stated, decided to build a hospital, and the Medical Officer of Health urges them to lose no time in starting building operations.

The Medical Officer of Health of Mayfield Rural District writes:—"With reference to the provision of an isolation hospital for the treatment of infectious cases, the Council petitioned the Staffordshire County Council for an order under the Isolation Hospitals Act, 1893, to constitute the rural districts of Mayfield and Ashbourne, and the urban district of Ashbourne, a united district for hospital purposes. Committees of the Staffordshire and Derbyshire County Councils held contemporaneous, but separate inquiries into the matter, but it appeared that a joint hospital could not be provided under the Isolation Hospitals Act in consequence of the districts affected being situated in different counties. The Councils concerned have since decided to make application to the Local Government Board for a Provisional Order under the Public Health Act, 1875."

The Medical Officer of Health of Stafford Rural District writes:—"In this hospital cases of scarlet fever and diphtheria have been isolated at the same time under the same roof, but in separate wards and different nurses, and in no single instance has any scarlet fever patient contracted diphtheria, and *vice versa*. This opinion is based on the treatment in hospital of 146 scarlet fever and 49 diphtheria patients during the last five years."

With reference to the above quotation, one can only say that the District Council in question are fortunate that the result has been as stated, but no argument can justify the practice of isolating scarlet fever and diphtheria cases under the same roof, and should inquiry result in such a case the Authority, upon proceedings being taken against them, would in all probability have to pay very heavy damages.

Vaccination.—It would again appear from many of the reports under review that the new Vaccination Act has been instrumental in increasing the number of vaccinated children, and if one could be satisfied that all vaccinated children were

efficiently vaccinated, a considerable advance in this department of public health might be recorded. I fear, however, that in many districts the operation is still very inefficiently performed owing to what one must characterize as dishonesty on the part of certain practitioners. The proportion of such cases, however, is probably not greater than formerly, and on the whole it must be admitted that the Act has served a good purpose. At the same time, it is much to be desired that some guarantee should be enforced which would ensure greater efficiency when the operation is performed by private practitioners, and it is to be hoped that when the Legislature again deals with this question, re-vaccination will also be made compulsory.

The Medical Officer of Health of Biddulph writes :—" In my last report I gave the figures for five years, 1896 to 1900 ; showing that 89·2 per cent. of childen were known to be vaccinated, with a probability that the percentage might even rise to 98·3.

" I now add the figures for 1901. 214 children were vaccinated out of 226 surviving, or 97 per cent. ; whilst if cases medically postponed, and those removed to other districts, were ultimately vaccinated (which I see no reason to doubt), the percentage becomes 99·5. If, therefore, small-pox should invade the district during 1903, it is to be expected that its principal victims will be found amongst adults who have neglected to protect themselves by re-vaccination."

The Medical Officer of Health of Darlaston writes :—" The number of the successfully vaccinated, insusceptible, and of those that died unvaccinated, reached the same totals as last year, and although there is a slight increase in the number of open cases, in fairness to the Vaccination Officer, who is most painstaking and vigilant, it must be said that the majority are under four months old, the period at which they first come under her notice to appear on the official lists.

" The interest attending this question has become intensified in consequence of the prevalence of small-pox in our immediate vicinity, and as the efficacy of vaccination varies in proportion

to the number and character of the vesicles, it is necessary that the public be fortified by its efficient performance.

"I regret to say, however, that according to figures received nearly a third of the children certified as having been successfully vaccinated were submitted to the insertion of lymph in one place only, a practice which cannot be too strongly condemned, as it not only leads to the multiplication of imperfectly protected persons, who are open to contract small-pox, but encourages disbelief in the protective value of the operation itself."

The following figures and remarks of the Medical Officer of Health of Handsworth are highly satisfactory :—

	Births Registered.	Successfully Vaccinated.	Insusceptible.	Had Small-pox.	Died Unvaccinated.	Postponed.	Removed to other District—traced.	Removed—unknown.	Defaulters.	Re-vaccinated.	Percentage of Defaulters to Births.	Conscientious Objectors.
1894	976	716	12	0	77	42	18	68	43	361	4·4	...
1895	1072	684	13	0	83	57	4	10	221	18	20·6	...
1896	1046	561	7	0	97	47	0	0	339	(?)	32·4	...
1897	1138	569	4	0	101	61	0	0	403	(?)	35·4	...
1898	1189	497	6	0	106	46	0	0	524	(?)	44·1	10
1899	1327	672	14	0	145	64	39	100	278	(?)	20·9	15
1900	1368	775	7	0	145	71	26	92	248	(?)	18·1	4
1901	1410	878	3	0	147	61	13	198	94	11	6·7	16
1902	1410	1032	4	0	147	71	22	112	12	552	0·9	10

"The report for 1902 is reassuring, showing as it does that an increasing number of persons are realising the necessity of vaccination for themselves and their children. The increasing number of removals not traced shows an increase in an undesirable floating population, which has the reputation of being vehicles for the carriage of infectious disease, and is of unsettled habits."

The Medical Officer of Health of Leek Urban District writes:—"The number of exemptions is 6·3 per cent. of the total number of births registered, which is too high for the safety of the community, and it is heartily to be desired that the small-pox epidemic now prevailing and spreading through the country may stimulate vaccination and re-vaccination, so that we may be absolutely proof against this loathsome disease.

"As far as I am able to judge, vaccination is efficiently performed. It is, however, a matter of regret that the Act does not compel the private practitioner to vaccinate in four places, as the public vaccinator is obliged to do. It would also, in my opinion, improve the efficiency of vaccination if the Government supplied lymph to all practitioners, inspected the work done, and paid the fees."

I quote the following highly unsatisfactory paragraph from the report of the Medical Officer of Health of Quarry Bank:—"I have not this year attempted to get the returns of vaccinations performed in your district from the Vaccination Officer, as he has declined in former years to provide them without a fee. Dr. Taylor, the public vaccinator, has kindly informed me that during 1902 he vaccinated 36 children in your district. If this is an index of the total vaccination, there is a considerable decrease of vaccinations, 66 having been vaccinated by him in 1901. Although, as shown by the resolution carried by a majority of the Council in March last, the opinion prevails in the Council 'that vaccination, without being a preventive of small-pox, is very injurious to the human system,' you will, I am sure, allow me the present privilege of dissociating myself from that resolution, which is diametrically opposed to my convictions."

It would appear from a return given in the report of the Medical Officer of Health of Rowley Regis, that of the children vaccinated in that district a large percentage are vaccinated by private practitioners, and, that being the case, the unsatisfactory state of things may be gathered from the following paragraph in the report:—"The practice of vaccination so as

to produce only one small vesicle is still carried out very extensively, with the result that a considerable number of children are annually foisted on the parish as adequately vaccinated, when in reality the protection they have obtained is so slight as to be little if any immunity against small-pox."

The Medical Officer of Health of Sedgley writes :—"I have no statistics available on this subject, but Mr. F. K. Smith, the recently-appointed vaccination officer, has kindly promised to furnish them in future. Vaccination in at least one half of your district has been well carried out, but there are too many who have evaded the law and who will only comply with it when they find, as they will shortly do, legal proceedings taken in the matter. A considerable number of adults were re-vaccinated during the year when small-pox occurred, and it is much to be desired that re-vaccination should also be compulsory. Were this safeguard adopted throughout the country, all the huge sums of public money now necessary for small-pox hospitals would be saved. In Germany, with more discipline and less freedom, small-pox has practically been banished for the past 30 years."

The Medical Officer of Health of Tipton writes :—"We in Tipton are insufficiently protected from small-pox, as so many mothers prefer to pay a small fee and have their children vaccinated in one place only, rather than ask our medical men to fully protect their children by vaccinating in four places, or allow the public vaccinator to do it at no expense to themselves ; not only do public vaccinators vaccinate efficiently, but they are compelled to use glycerinated calf lymph, which has been carefully tested and mixed by Government experts at the Calf Vaccine Establishment in London."

This being the case, as the Medical Officer of Health points out, "the protection afforded to the majority of those vaccinated is so slight that it is only just removed from absolute uselessness."

It would appear that very much the same conditions prevail in Wednesbury, as the following extract from the report of the Medical Officer of Health indicates :—"The

vaccination record for the year ending June 30th, 1902, shews a striking improvement as compared with the foregoing twelve months. Thus out of 804 children alive at the end of June, 1902, and born during the preceding twelve months, no fewer than 681 were successfully vaccinated, as compared with 481 vaccinations amongst 766 children in the preceding year. This means that the percentage of successful vaccinations in the year under review was 84·7, as compared with 62·7 in the previous year. Further it will be seen that this year's return shews no defaulters, whereas those in the previous year were 145 in number. This indicates very thorough work on the part of the Vaccination Officer. The calf lymph supplied by the Government has again yielded excellent results. Of the total number of vaccinations done, it must not be forgotten that a considerable proportion were only vaccinated in one place. Experience has shown that protection against small-pox thus afforded is very transient, and such a practice must be strongly condemned."

The Medical Officer of Health of Willenhall writes :— "Since 1896, 4,743 births were registered in the district, and 916 children died under a year old. In the same period 2,467 persons were successfully vaccinated. It therefore follows that after making allowance for deaths and removals between the ages of one and seven, there are in our midst probably nearly 1,000 children under seven years old who have not been vaccinated. However useful isolation hospitals may be, by far the greatest protection against small-pox is conferred by vaccination and re-vaccination, and in view of the present tendency for small-pox to spread through the country, I ask my fellow townsmen not to neglect their plain duty to themselves and their neighbours. It is all very well to have a conscientious objection to vaccination; others besides them conscientiously object to have themselves and their families exposed to the risk of taking small-pox from the first-named conscientious objectors, whose objections generally cease when face to face with the experiences of a severe epidemic of small-pox. As the Vaccination Act of 1898 will expire at the end of

1903, I hope new legislation will provide not only for vaccination, but for compulsory re-vaccination at a specified age under the control of a special central department, and that '*efficient* vaccination' will be defined, and such means adopted as will ensure the attainment of the standard of efficiency in primary vaccinations, whether done by *public* or *private* vaccinators."

The Medical Officer of Health of Seisdon Rural District writes:—"Insufficient vaccination in one or two small places is, unfortunately, very common, and is much to be deplored. . . . . ."

In the Eccleshall Rural District it is said that vaccination is efficiently performed.

Insanitary Dwellings and Overcrowding.

It would appear from the reports under review that the provisions of the Housing of the Working Classes Act, 1890, and the Public Health Act, 1875, in regard to insanitary dwellings, are receiving increased attention; still, there is room for greater activity on the part of authorities, especially of rural districts, in condemning insanitary property.

The Medical Officer of Health of Biddulph writes:—"Three or four bad cases have been dealt with during the year. It appears here, as elsewhere, that overcrowding occurs mainly among the very poorest classes, and is an expression of poverty, or inability to pay the necessary rent for adequate accommodation, rather than of any instinctive preference for discomfort. Moreover, when the nuisance is abated in a particular house, under threat of proceedings, it is practically certain that it is only removed into some other similar house or houses. And the Council becomes hopeless of success in grappling with the evil, in the absence of a sufficient supply of small houses at low rents."

The Medical Officer of Health of Bilston writes:—"During the year I have given great attention to the condition of the poorer streets and houses. Sixteen houses were certified by me, under the Housing of the Working Classes Act, as unfit

for human habitation, and after due notice to the owners these were closed by order of the magistrate. Subsequently an order for the demolition of 15 of these was served on the owners, after they, or their agents, had appeared before your Council. In addition, 37 houses were, after due notice, cleansed, and 23 repaired."

In my last Annual Report, in writing with reference to Brownhills under this heading, I called attention to a statement of the Medical Officer of Health to the effect that nothing had yet been done by the Authority in the direction of closing certain properties which had been condemned by him repeatedly, and I expressed the hope that he would not again find it necessary to report the same property. In view of this, it is most discouraging to find the following statement in his report this year:—"My report on the housing question made last year in my annual report still stands good; and so far as I can judge, little or nothing has been done to remedy the defects complained of."

The Medical Officer of Health of Coseley writes:—"During the year I have made formal representations respecting nine houses as being unfit for human habitation. Six have been repaired, one is closed, and two remain occupied, no action having been taken.

"Of the 11 houses condemned last year, but undealt with, seven have been closed, and six taken down, and four repaired.

"A new house is being built on the old foundations of one of these. This house was below the level of the road, and had insufficient space for sanitary conveniences, so I am afraid there will be trouble with the new structure. All new houses require strict supervision, and new building bye-laws should be framed."

Considering the difficulty which is experienced in securing the abolition or improvement of insanitary property, the unwise proceeding, detailed in the preceding paragraph, is much to be deplored.

The Medical Officer of Health of Heath Town writes:—"There is some old property in your district to which I have frequently directed your attention, there is an absence of yard paving, defective spouting, the soil is always damp as a consequence, and charged with filth, is a source of generating disease; also, the insides of these houses are rarely, if ever, cleaned, and reek with accumulations for years. Lime-washing of the outbuildings is conspicuous by its absence. What is wanted is a few scores of houses whose rental should be from 3s. 6d. to 5s. per week, then these people, who are mostly unmindful, would have a chance of bettering their surroundings, and would tend to improve them individually, the slum property owner would have his property untenanted, and it would bring him to his senses."

The Medical Officer of Health of the City of Lichfield writes:—"With a view of obtaining increased accommodation for workmen's dwellings, the Council have obtained possession, under a Local Government Board Order, of some cottages and land in St. John Street, on which they intend to erect 14 cottages. This will supply a much-needed addition to the dwellings of the working classes in the City."

The Medical Officer of Health of Quarry Bank writes:—"Forty-three cases of over-crowding have been discovered, 12 of which were abated after notice. The Council has shown greater activity in dealing with houses unfit for habitation than in former years, but very much remains to be done in this direction. For several of the houses reported, demolition could be the only practical course. Much of the property is rendered untenantable by the lack of proper spouting, with damp walls and rotten wood and plaster. The year opened with the promise of an uncompromising attitude towards this evil, but the results have not yet justified my anticipation. To cover these walls with cheap wall paper to coax a new tenant or humor an old one, is only to disguise the danger for a time, but I regret to say this is often done."

The Medical Officer of Health of Rowley Regis, in writing with reference to the part of the district known as Tibbett's Gardens, says:—"The remainder of the open drains have been

put in order by the Council, and four water-closets have been substituted for privies. There is still much to be wished for in this locality, and it must of necessity continue in an unsatisfactory state until some scheme for efficient drainage can be carried out."

The Medical Officer of Health of Sedgley writes:—"Another potent contributory cause of phthisis is overcrowding, and I regret to repeat my remark of last year, that this matter at present, owing to the lack of houses, is practically beyond the control of your officers." Later on in the same report he says:—"Much activity is evident in the building trade in your district, and new building estates are developing in Sedgley and Sandyfields. From every point of view this is most desirable, as there is certainly overcrowding, which it is impossible to prevent so long as the supply of workmen's houses is, as at present, quite insufficient."

The Medical Officer of Health of Short Heath writes:—"In 1899, Brewer's Row was condemned as unfit for habitation. In my last annual report, I indicated the Surveyor was satisfied with improvements carried out, except that tap-water had not been supplied, and this he then thought was about to be done. Some hitch, however, seems to have occurred in the negotiations, resulting apparently in a failure to transfer the property to a new owner. Under these circumstances, it seems to me there are two ways of proceeding; firstly, the Council may re-consider their powers under the Housing of the Working Classes Act; and secondly, the Corporation may find out for themselves whether the tenants are being indirectly supplied with their water; and if so, stop that supply, with the probable result that the houses will, by voluntary action on the part of the tenants, become void. At any rate, these represent 8 out of the 35 houses not supplied with tap-water, and the matter has been in hand so long, that I think the Council should bring it to an issue at once.

"With regard to the Closing Order made by a Court of Summary Jurisdiction in 1899, which was so strenuously resisted by Mr. Abner Appleby, even to the extent of imprison-

ment for non-compliance, the property is now closed. Three informal notices, in consequence of their condition, to close houses adjoining Mr. A. Appleby's, Chapel Lane, and at Share's Acre, have been complied with, without further trouble."

The Medical Officer of Health of Wednesbury writes :— "Before ending this report, there is one point to which I feel some allusion should be made. I refer to the question of new buildings. Hitherto considerable stress has been laid upon the desirability of substantial building. Against this I have nothing to say. Nevertheless, I must urge upon the Authority the necessity of insisting that yards or courts round about the houses should be properly paved and channeled. Where the premises include a garden, this is naturally not included in my remark, but the yard space immediately round the dwelling and wash-house is, as a matter of course, being constantly fouled with filth or sewage of various kinds. Such contamination is productive, in my opinion, of much disease and of much of the squalor so often observed about the homes of the poor. I feel strongly that an effective step will have been taken by the Health Authority refusing to sanction any plans where this necessary feature has been neglected."

The Medical Officer of Health of Wednesfield states that there are many insanitary dwellings in the district, and that, were it not for the difficulty of providing other houses for the displaced people, he would consider it his duty to report them as unfit for habitation.

In Blore Heath Rural District it is said that, owing to the decreasing population, the house accommodation is sufficient.

The Medical Officer of Health of Eccleshall Rural District writes :—"Speaking generally, the house accommodation for the labouring classes is not satisfactory; many of the cottages are very old, most of them are too small and often dilapidated."

Excrement and Refuse Disposal.

I have called attention in my preliminary remarks to the satisfactory advance which has taken place in the system of dealing with the excrement and refuse of districts. This subject has received considerable attention in my previous Reports, but as it is one of such supreme importance from a health point of view, I propose to notice, very fully, the paragraphs in the reports under review which deal with it.

The Medical Officer of Health of Amblecote writes:—"The general sanitary work of the year has worked smoothly, and many things have been quietly accomplished, which promise well for the future. There is one exception, which is not so satisfactory, viz., the removal of night-soil. The contractor has been very troublesome, and although the Council has frequently urged him to do better and expressed strong disapproval of his methods, I do not think there has been much improvement. One cannot take up the County Medical Officer's Annual Reports without noting how very frequently there are extracts quoted from the Annual Reports of the Medical Officers of Health throughout the County condemning the practice of removing the night refuse by contract. I do not know whether any other system could be satisfactorily established in a small district like this, but it is a subject which should be very fully gone into with a view to putting increased pressure upon the contractor, or establishing some better system. Some system which would give you more direct control over the work appears to me very desirable."

It is with satisfaction that I quote the following from the report of the Medical Officer of Health of Audley, more especially as the extract has reference to a matter concerning which the Sanitary Committee of the County Council have previously made strong representations to the District Council. Under the heading "Ash Removal," he writes:—"Under this head I have to report that the adoption of movable receptacles for ashes, and their frequent emptying, has brought about a great improvement in the condition of the houses. The change has undoubtedly added to the comfort of many of the houses,

and I think that we may reasonably conclude that the better sanitary condition that has resulted has assisted in bringing about the low zymotic death-rate and the improvement in the general death-rate which I mentioned at the commencement of the report.

" I wish to repeat what I said in my last report—that I am convinced that the sanitary advantages much more than outweigh the cost that the change entails.

" The fact that the work is done by the Council's own men leads to its being carried out more regularly and satisfactorily."

As regards other scavenging work, the same Medical Officer of Health says :—" I have to report that this has been done in a satisfactory manner during the year. The Council now provides a horse on each side of the district, so that the work can go on continuously."

Under the heading of " Enteric Fever," the Medical Officer of Health of Bilston writes :—" Its presence is closely related to the methods of excrement removal employed, as air and soil near to and about dwellings become polluted with foul emanations from open middens, privies, &c. It is, therefore, of the highest importance that, even when the new sewage scheme s completed and in proper working order, the courts and yards of houses should be well paved, and the ashpits should be reduced to the smallest possible size. Privy-middens should be absolutely abolished, and the water-carriage system adopted as far as possible."

It is to be hoped that the following extract from the report of the Medical Officer of Health of Brownhills will not escape the notice of the District Council :—" I am glad to say that the ashpit removal in the Central and Walsall Wood Wards has been very satisfactory. I trust that the movement on foot among some members, and against which I protested in my last monthly report, will not be allowed to go on. The mover of the resolution to go back to the dark ages of removal by contract was labouring under some misunderstanding. He seemed not to ask that the Norton Ward should be done by contract,

but that its ashpit removal, being bad, it was desirable that the Central and Walsall Wood Wards should be brought down to the Norton level, not that Norton should be raised to theirs. He also said that I, personally, had not pushed for removal by the Authority at Norton. On the contrary, I have pushed the matter almost *ad nauseam* for many years. I earnestly entreat you to pause ere making such a retrograde movement—a movement, I am sure, the Local Government Board and Stafford County Council will deeply deplore if it should be carried through."

It is satisfactory to note that the work of privy abolition in Burslem is progressing, 403 water-closets having been substituted for privy cesspools during the year.

In Handsworth, also, similar work is in progress, 349 privy-middens having been converted into water-closets and dry ashpits or receptacles during the year by order of the Authority, in addition to many which were so converted without notice, on the suggestion of the Sanitary Inspector.

The Medical Officer of Health of Heath Town finds fault with the method of excrement and refuse removal in that district, and refers to the objectionable practice of depositing the refuse on the streets before removal.

The Medical Officer of Health of Kidsgrove states that defects in the privy system have been remedied during the year, and that the removal has been conducted with greater regularity.

The Medical Officer of Health of Leek Urban District calls attention to the difficulty which is experienced in finding suitable "tips" for refuse, and states that the want of a destructor is keenly felt.

The Medical Officer of Health of Longton writes :—"The new laws relating to ashpits and cesspools will work far too slowly ; you should devise some new scheme to do away with the old ones in a wholesale manner, and although the rates are high, you are morally bound to consider the death-rate before any other rate, and try to remove all influences prejudicial to the public health as quickly as possible."

The Medical Officer of Health of the Borough of Newcastle writes :—" During the year 190 water-closets have been substituted for faulty privies, pails, and cesspools, and in all the plans passed for new buildings in 1902, provisions were made for the water-carriage system, so that gradually the old cesspool system is being superseded.

" The Sanitary Department now attend to stoppages in water-closets and drains, with the result that many serious nuisances have been abated without any dangerous delay.

" The removal of night-soil has been carried out more efficiently than in recent years, and with the general adoption of ashbins in lieu of ashpits, which is gradually taking place, I hope shortly to see a weekly collection of household refuse, which will greatly improve our present system, and will be another step in the improvement for the public health.

" The scavenging in the principal streets is satisfactory, and the smaller and less important streets have received more attention than in previous years."

The Medical Officer of Health of Quarry Bank writes :— " All the new houses erected during the year have been fitted with wash-down closets of a good type, in conformity with a resolution passed by the Council towards the end of 1901. I have had no complaint made to me with respect to any of these closets. My attention has been drawn to offensive smells arising from one or two of the slop-closets of which there are only 15 or 20 in the district. The greater part (probably 90 per cent.) of the houses have privy-middens, mostly of the objectionable deep, uncemented kind. The night-soil removal has been done through the agency of the Council without a contractor. I watch with anxiety the departure you have taken from this course in again letting the work to a contractor for 1903.

" The evils of a contract can only be obviated by the most regular and systematic search for night-soil accumulations, as many householders will not take the trouble to report such matters to the Inspector."

The Medical Officer of Health of Rowley Regis writes :— " This work is still carried out on the old lines. The work is performed by contract, and is supervised by the Sanitary Inspector and his assistant. The night-soil is removed between the hours of 10 p.m. and 8 a.m., and the dry ashes during the day. All plans for new houses are only passed subject to water-closets being provided, except in those localities where it is impracticable to sewer and to get a water supply. The old privies and privy-middens are being steadily replaced by water-closets, and I trust in the course of a few years water-carriage will be the principal if not the sole means of night-soil removal.

" The Sanitary Inspector reports that there are at the present time 3,850 privies, 2,950 middens, 1,750 water-closets, and 870 dry ashpits in the district.

" The desirability of night-soil tips will be an urgent question for the near future. We are fairly well off for tips at the present time, but if the district continues to increase at the same rate as it has for the last few years, building land will be at a premium, and then the provision of destructors or some other equally effective method for getting rid of the refuse will have to be considered.

" Also the importation of dry ashes and house refuse from neighbouring districts, which is carried on very extensively at the present time, especially in the Tividale Ward, is much to be deplored, as these so-called dry ashes may easily be a medium for conveying infectious diseases, as dust-bins must of necessity contain refuse from houses in which infectious diseases exist. This rubbish is sorted over as deposited for a variety of articles, including paper, rags, bones, old household utensils, carpet, linoleum, etc., which are all sold to different trades. The sooner each district is compelled to deal with its own refuse the better for the community at large."

The Medical Officer of Health of Rugeley writes :—" A large number of open privies still exist, but they are gradually

being reduced. I reported eleven as having been converted into w.c.'s last year; this year seventeen have been so converted, and fourteen ashpits have been reduced in size and covered in. There still remain, however, a considerable number to be dealt with."

The Medical Officer of Health of Smallthorne writes:—"I am informed that you have at present under consideration the question of excrement and refuse disposal, and hope that such will lead to the substitution of a more modern and less obnoxious method than the one at present existing. I have in previous reports drawn your attention to the risks to health run by continuing the present method."

The following extract from the report of the Medical Officer of Health of Smethwick shows that good work is being done in that Borough in this department:—"The Sanitary Inspector has again continued to devote considerable attention to the privy question, and has succeeded in a very satisfactory manner in securing the abolition of a large number of privies and middens and the substitution for them of water-closets. The particulars for the last seven years, as given in the annexed table, show the amount of good work that has been done in this direction. There are necessarily still a good many privies in the Borough, but the worst and most offensive ones have been done away with. Mr. Fyles points out that in a great number of instances the provision of water-closets also means the provision of new drains throughout the premises, properly trapped and ventilated. The night-soil and dry refuse has been disposed of either by boat or to farmers, or on the dry tip, with a minimum of nuisance to the public. About 8,000 of the portable iron bins which are used for the storage of dry refuse are now in use. These are systematically and periodically emptied. The following table shews the progress made during the past seven years in the substitution of water-closets for privies:—

	W.C.'s Provided.	Privies Abolished.	Middens Abolished.	Houses.
1896	140	140	126	151
1897	226	226	175	240
1898	401	395	276	434
1899	509	500	340	569
1900	645	621	394	707
1901	525	525	322	553
1902	409	409	229	433
Totals...	2446	2407	1633	2654

Also, it will be seen from the following growth in the work of refuse collection in cases where movable receptacles are provided, that steady progress is being made in introducing the improved system in place of the midden system :—

No. of Emptyings.	No. of Loads.
1900 ... 120,000	4,500
1901 ... 176,800	6,633
1902 ... 245,900	8,762

The Medical Officer of Health of the Borough of Stoke-upon-Trent urges his Authority to make more rapid progress in the methods of refuse removal, but he anticipates that the destructor which it is intended to erect will facilitate matters.

Incredible though it may appear, in view of the advice they have had, the Stone Urban District Council still continue the disgusting practice of discharging night-soil into the sewer manholes. The Medical Officer of Health writes :—"Excre-

ment and refuse removal is still carried on in the same insanitary manner that I mentioned in my last year's report. It is claimed for the system that there is now no nuisance arising in the daytime from ill-smelling carts and waggons; but the discharge of the contents of tubs and pails into manholes in different parts of the town in the evening and at night is really a greater and more serious nuisance, as there is no escape from it. The system in vogue would be impossible in any well-conducted works."

The Medical Officer of Health of Tunstall writes:—"The new method of dealing with ashes, house refuse, and night-soil has proved very satisfactory in the greater efficiency and promptitude with which the work is carried out. I notice, however, that the practice of turning ashes, etc., into the street for collection has not yet been completely abolished. This is a matter for further attention.

"Considerable progress has been made in abolishing existing privies, no fewer than 423 having been converted into water-closets."

The Medical Officer of Health of Uttoxeter anticipates that when the new sewerage scheme, which is now in progress, is completed, many defective privies will be abolished.

The Medical Officer of Health of Lichfield Rural District writes:—"At Chase Terrace I would call your attention to the fact that the accumulation of ashes and house refuse at the spot where it is tipped is becoming so great that, sooner or later, another place will have to be found, or a destructor provided, for this now populous neighbourhood. The latter would prove a great boon, as the system of tipping is always objectionable if it can possibly be avoided."

The Medical Officer of Health of Tutbury Rural District writes with reference to Barton-under-Needwood as follows:—"This parish is now being placed in a fair sanitary condition. I feel sure that the new system of drainage will be a great benefit, but owing to a large number of deposits of night-soil and house refuse which I saw when last I visited the parish

with your Inspector, I still believe that a system of scavenging is needed, the various occupiers of houses being unable to get rid of these very unwholesome deposits without much difficulty and expense."

The Medical Officer of Health of Walsall Rural District writes:—"At Heath End, Pelsall, a number of self-acting water-closets have been put in. I hope the Council at an early date will inspect these and note the difference between them and the foul-smelling and disease-bringing privy-middens in the neighbourhood. In those portions of the district which are urban in character and where the houses are very congested, I am convinced that the water-carriage system is healthier and better in every way." He also says:—"I am glad to be able to report that, on the whole, the scavenging has been better done at Rushall, at Pelsall, and Aldridge. The Council's new depôt at Daw End, Rushall, will shortly be finished. I hope, however, the practicability of the Council being able to perform this work themselves will be discussed during the coming year. There is no doubt that the work would be better done than at present, and it follows as a necessity that the health and comfort of the inhabitants would be thereby improved."

Sewerage and Sewage Disposal.

Apart from the information already in the Council's possession as to the general activity on the part of most authorities in improving the various sewerage systems, it is evident, from the prominence given to the subject in most of the reports, that honest, although, perhaps, somewhat tardy efforts are being made to meet the views of the Council. The following summary of the remarks under this heading will serve to show that this is the case:—

The Medical Officer of Health of Bilston refers with satisfaction to the new sewerage scheme which has been prepared and now awaits the approval of the Local Government Board.

The Medical Officer of Health of Cannock Urban District states that considerable progress has been made with the new sewerage and sewage disposal scheme for that district.

With reference to cellar drainage, the Medical Officer of Health of Rowley Regis writes :—" This is still only permitted in exceptional cases, and then under the strict supervision of the Council's official. The outlet from the cellar is carried through the wall and empties into a gully placed outside the building, from which an air-shaft is built to ground level and is covered with a perforated cast-iron cap."

The Medical Officer of Health of Sedgley refers to the fact that several communications have passed between his Council and the County Council on the subject of a sewerage scheme, and it is to be hoped that his prediction that the matter will be taken up in the near future will prove correct.

With reference to certain plans of sewage disposal works which it appears are now being prepared, the Medical Officer of Health of Short Heath says :—" Before any work is undertaken, I wish to emphasize my remarks last year : that before one section is begun, the scheme for the *completion* of the whole work should be created in detail and definitely agreed on and adopted."

The Medical Officer of Health of Stafford writes :—" The condition of the drains in connection with the prevalence of disease was discussed in my report of last year, and I referred to the systematic testing of them which had been begun. It has been carried on throughout the year, and was completed in November, the whole of the property in the town having been examined. All the house and stable drains have been examined, and the various defects were reported and put right. But, so long as stoppages are of such frequent occurrence, the condition of the house-drains must ever be a source of anxiety. These stoppages take place chiefly where slop-closets are in use, and the frequent opening of the drains thus necessitated is a serious matter both from a sanitary and financial standpoint. Any further adoption of the slop-closet system in new property should be strongly discountenanced. The much-vaunted economy in the consumption of water effected by their use is a fallacy ; and their several objection-

able features far outweigh the only advantage they possess, namely, that they are not very liable to become frozen in winter."

The following extract from the report of the Medical Officer of Health of the Borough of Stoke-upon-Trent calls for the serious attention of the Corporation with the view of correcting the present dangerous conditions arising from the prevailing absence of disconnecting traps in connection with house-drains and the improper ventilation of house-drains by down-spouts. He says :—" The sewerage of some parts of the borough cannot be said to be sufficient for present needs.

" As pointed out in previous reports, more ventilating shafts and automatic flush-tanks could be usefully employed in connection with the sewers in order to prevent nuisance from manholes and to cleanse the low-lying sewers. Many untrapped street gullies have been trapped during the year, and manhole bottoms are being inverted with channel pipes as found to be necessary.

" In many districts the rain-water fall-pipes are directly connected with the drains and sewers. This has several times been referred to. A special effort should be made to remedy this defect.

" As a rule, in the larger houses, and where water-closets are situated in the houses, the drains are ventilated by a pipe continued upwards from the soil-pipe, but only in houses specially re-drained within the last few years are the drains disconnected by a trap and inspecting chamber from the sewer. In smaller houses, with the water-closets outside, there is no disconnection of drains from the sewers, and in those that have the drains ventilated it is done by means of the rain-water fall-pipes. Under the new bye-laws all new houses will have the drains disconnected and ventilated."

The Medical Officer of Health of the Borough of Tamworth points out that the negotiations with a view to a joint sewerage and sewage disposal scheme for the borough and parts of the adjoining Rural District have come to an end, for

a reason which is not given. This is most unfortunate, as a joint scheme would certainly seem to be the more economical and efficient. I may mention that the Sanitary Committee of the County Council have allowed the respective Councils considerable licence in this matter in the hope that an understanding might be arrived at between them, but the time has now arrived when pressure must be brought to bear upon both Councils to provide efficient sewerage and sewage disposal works without further delay.

The Medical Officer of Health of Uttoxeter Urban District states that the work in connection with the new sewerage scheme is now in active progress.

As regards Cannock Rural District, the question of sewerage and sewage disposal would seem to be receiving considerable attention. Plans are being prepared of schemes for Cheslyn Hay and Great Wyrley, while the District Council are considering similar proposals with reference to Brewood. At Lapley a sewerage scheme has been carried through which is said to have proved successful.

The Medical Officer of Health of the Eccleshall division of Stone Rural District writes:—"No work of any importance has been carried out in the district during the year. The refusal by the Local Government Board, after the enquiry by their Inspector, on July 17th, to sanction the suggested scheme of sewerage by gravitation for Eccleshall town, or the proposed area to be rated, can hardly have surprised any. The alternative scheme by pumping, which will cost from £3,000 to £4,000, will fall heavily on the ratepayers of the town of Eccleshall, with a population of only about 1,450. The question is constantly asked me if a less expensive scheme than by pumping cannot be devised, and if not, why should not every house-owner deal with his own sewage by a properly-constructed system of house drainage with cesspool, as is done by a few now? If properly carried out, the latter might be efficient, if all the work were approved by your Council beforehand, and special supervision given afterwards. But all this would

necessitate an extra rate, which of course would not be so heavy as for a pumping scheme. Would individual house drainage meet with the sanction of the Local Government Board? I am afraid no scheme of sewerage, except by pumping, could be efficient, from the low-lying situation of the town. The owners of property in the town cannot escape a considerable outlay, whether a pumping scheme is adopted or not. The Rivers Pollution Act will not allow them to pollute the river now as they have done in the past. Individual house drainage, to be efficient and to meet with modern sanitary requirements, will be very expensive. There is now a very strong opposition, by the ratepayers outside the town, to being rated for a sewerage scheme from which they say they will derive no benefit. But if the area of the town is considered too restricted, and a wider area has to be formed, then it is fairer to rate the whole Union Parish than only a portion of it, and it may become necessary later on to drain other small areas in the parish."

With reference to Eccleshall, it is to be hoped that the District Council will not delay any longer in carrying a satisfactory scheme through, and I would point out that nothing short of a comprehensive scheme is at all practicable, neither could sanction be obtained for a loan for anything short of a complete scheme.

The Medical Officer of Health of Leek Rural District writes with reference to the sewerage of Endon, which has been so long under consideration, as follows:—"The disposal of the sewage of the village of Endon is still under consideration. At a ratepayers' meeting a local committee was appointed to consider an alternative scheme to that of Mr. Willcox, of Birmingham, and they employed Mr. Dean, Surveyor, who has presented a scheme which is at present being considered by the Committee."

The Medical Officer of Health of Mayfield Rural District writes:—"The pollution of the river Dove at Ellastone, caused by the overflow from a tank receiving sewage from the premises in the lower portion of the parish, has been taken in hand and dealt with during the past year. A screening chamber and

septic tank and two bacteria beds have been laid down in accordance with plans drawn by your Surveyor, and the plant has been in working operation for the greater part of the year. The filters appear to be doing the work they were intended for, and an apparently good effluent is being obtained.

"The question of the pollution of the river Dove at Hanging Bridge and Mayfield Mills is still before you, but the scheme designed by your Surveyor—particulars of which have been laid before the Local Government Board—should, if carried out, abate the pollution."

The Medical Officer of Health of Newcastle Rural District states that a scheme which has been prepared for the village of Madeley is now awaiting the sanction of the Local Government Board, a local inquiry having already been held.

The Medical Officer of Health of Seisdon Rural District says—"Kinver is still in a sad condition for want of drainage."

In Stone Rural District the Authority are reminded that a scheme is necessary for Trentham and Barlaston. The Medical Officer of Health also states that an amended scheme for Hanford is under consideration, and he hopes that the Cheadle Rural District Council will join in a scheme for Blythe Bridge.

In Tutbury Rural District the new sewerage scheme is now being carried out, but the Medical Officer of Health calls attention to pollution at Stretton from a large number of houses.

The Medical Officer of Health of Uttoxeter Rural District states that arrangements are now complete for carrying out a sewerage scheme for the village of Denstone, but that the need for a scheme at Rocester is pressing.

Water-supply.

The following is a summary of the remarks with reference to water-supply in those districts where the subject receives most notice in the reports. The Sanitary Committee of the County Council have frequently had occasion to spur on

Authorities in districts where good public supplies were available, but where many old local wells, liable to pollution, were in use.

In Cannock Urban District it appears that 1,000 yards of new mains have been laid, and 150 additional houses have been connected.

It would appear from the report of the Medical Officer of Health of Coseley that the chief difficulty in extending the use of the public supply is the objection of the people themselves to the closure of private wells.

The Medical Officer of Health of Perry Barr writes:—"The Birmingham water is supplied to 84 houses, 178 houses have well-water from 85 wells, 10 of which are draw-wells. The great majority of the pump-wells were inefficiently protected against surface pollution, and several were in dangerous proximity to offensive privies. By conversion of the draw-wells into pump-wells protected against surface pollution in the manner mentioned in my annual report for 1895, a fairly good water may be obtained, but those who wish for a trustworthy supply must either have the Birmingham water or spend a considerable sum of money on the old wells."

The Medical Officer of Health of Quarry Bank writes:—"A systematic inspection of the district is being made to discover houses without a proper water-supply. Seventeen of these have been provided with the South Staffordshire Waterworks service in addition to 33 new houses erected during the year. There are now very few houses without a proper supply."

In Sedgley it would seem that progress has been made during the year in extending the water-mains and in connecting houses, but it is most disappointing to see the following paragraph in the Medical Officer of Health's report:—"In cases where new houses are built and the public water-mains are available, we still find property owners sinking wells, *e.g.*, in Bilston Street and Barr Street. In the latter case a well has been sunk in a garden contiguous to one where the water

was condemned some two years ago, and which lies considerably lower than another garden with privies and pigsties upon it. In time to come, typhoid fever is certain to spring from such a water-supply. I would strongly recommend this Council to prevent, if at all possible, this method, by refusing to pass such building plans. To wait for typhoid fever before condemning such a water-supply, means to wait for a disease which is preventable, and which entails weary weeks or months of sickness, with a fatal result in about one out of every five cases."

The Medical Officer of Health of Wednesfield writes :— " In the outlying parts of the district, the water-supply is, as a rule, both inadequate and impure. As mentioned in former reports to the Council, the water used for potable purposes at the Scotlands is unsafe to be used as such, and in the summer there is almost a water famine, many residents having to trespass on the kindness of a neighbour for a supply.

" Recently, in accordance with the wish of the Council, I have examined roughly some 19 specimens of water from both the Upper and Lower Wood End districts, and only four of the samples were, in my opinion, those of a fair drinking water. These districts lie very low, and no doubt the soil is water-logged with surface-drainage, which percolates with other sewage matter into the wells, contaminating the supply ; and it is very probable, even if this defect was thoroughly rectified, and the wells were put in proper order again, the water would be in just the same condition in a year or two's time, as it is notorious that old wells, especially shallow ones, are very liable to pollution, and that it is almost impossible to keep the water pure for long at a time.

" At March End the same applies, there being no supply of water beyond suspicion, with the exception of those parts supplied by the Wolverhampton mains, which extend as far as the new house on the right-hand side, and also as far as the ' Greyhound Inn ' from the Willenhall side of the district, leaving a part unsupplied between the two.

"As it is no doubt one of the very first duties of a sanitary body to supply the inhabitants with good drinking water, I would respectfully suggest that the Council should arrange to have waterworks water mains extended to these outlying parts, and that, I feel sure, would do much to improve the health of the people, and at the same time most probably prevent many cases of enteric fever and diarrhœa. I may say, during the year there have been three cases of enteric fever at March End, and two of dysentery at Lower Wood End, which were probably directly due to contaminated water. I would most earnestly beg the Council to take the step suggested, even at some expense to the rates, and so probably save the lives of many people."

It is gratifying to find that in Cannock Rural District considerable progress has been made in improving the water-supply. The public mains have been extended to Essington; the new works for Great Wyrley have been completed; and, with the exception of the engine-house and pumps, the new scheme for Cheslyn Hay is completed.

In Cheadle Rural District a good supply of water for Kingsley and Froghall has been provided at a cost of £2,000, and schemes are in hand for supplying Ipstones, Werrington, Cellarhead, and other parts of the districts.

The Medical Officer of Health of the Eccleshall Division of Stone Rural District writes:—"The water-supply at Shallowford has been much improved, the public well having been enclosed and a good pump erected. At Yarnfield Green, the well, which is on private ground, is unprotected. Throughout the district generally, the water-supply, which, with a few exceptions, is from private wells, is sufficient and wholesome, but in many cases pumps are allowed to get out of repair and remain so for a long time, and in others the water gets polluted, owing to the well being improperly protected, and from refuse and manure being retained too near the well."

The Medical Officer of Health of Mayfield Rural District writes:—"Notices with respect to insufficient water-supplies

to isolated premises have in several cases been served under Section 3 of the Public Health (Water) Act, 1878, and have brought about a better state of affairs.

"The question of water-supply to Upper Mayfield has been under consideration, and general inspection of the area shews that there is need of an improved supply. Negotiations for a supply from private deep wells having fallen through, your Surveyor is now making trials with the view of finding water for a gravitation scheme, to supply the whole of the houses without a sufficient supply with every probability of success."

As regards Waterhouses, in the same report it is stated that the question of an improved supply is still in abeyance.

In my last year's Report I quoted from the report of the Medical Officer of Health of Seisdon Rural District, to the effect that the Authority were taking steps to provide a pure supply of water for Kinver. In view of that, it is disappointing to find the following remarks in the report of the Medical Officer of Health this year :—"Pure water for Kinver is still not provided, and I hear of no steps being taken in that direction, for all my strong representations upon this matter in my last report. Five samples were examined from the village of Kinver, and all condemned as being unfit for consumption. One sample at Newtown was found good. Surely pure water could be provided from artesian wells, or caught on the neighbouring hills and conveyed to the main street at the very least.

"This matter is very serious, as Kinver is visited by so many thousands in the course of the year. Water, too, has not been provided to Swindon, though I understood you were arranging to do so long since."

The Medical Officer of Health of Stone Rural District calls attention to the need for an improved water-supply for Rough Close, and states that the difficulty of providing a supply ought not to be insuperable, seeing that one of the mains of the North Staffordshire Waterworks Company is not two miles away. He also states that it is very customary for new houses to be occupied previous to a certificate as to water-supply

having been obtained as the law requires. This should not be, and it is to be hoped that the Authority will act upon the advice of their Medical Officer of Health and institute proceedings in a few cases by way of example.

The Medical Officer of Health of Tutbury Rural District writes :—" The water-supply in many parts of the district, particularly in Tutbury and Hanbury, is still a matter of great urgency. In both places most of the existing wells are contaminated. Some months ago I accompanied Mr. Willcox and several members of the Tutbury Parish Council on a visit of inspection to the various springs and water courses in the locality, but the difficulty of getting a sufficient supply from any of these sources was very striking. Mr. Willcox has the matter under consideration and will report to your Council."

Slaughter-Houses and Meat Inspection.

Most of the reports refer to the inspection of slaughter-houses, and as a rule they are said to be found in a fairly satisfactory state. I am afraid, however, that the standard is not a very high one, and the favourable comments have reference more to the condition as to cleanliness having regard to the structural unfitness in many cases.

The Medical Officer of Health of the Borough of Stoke-upon-Trent writes :—" There are in the Borough four licensed slaughter-houses and five registered ones. There are bye-laws for their regulation ; they are not, however, up-to-date. I have in previous years asked the Health Committee to revise these. During the year the use of two registered slaughter-houses has been discontinued. In one instance the slaughter-house was probably the worst of the registered ones, being situated under a sleeping-room, and in direct communication with the main street.

" Large accumulations of manure are still allowed to remain on many of these premises. In some, horses are kept in the lairs. I have found pigs kept on the manure heaps, and in some instances offal lying about on the floors. Pigs also

are kept on the premises for indefinite periods. Dogs are allowed in the slaughter-houses. I have observed notices obliterated, and a 'licensed slaughter-house' with a notice 'registered slaughter-house.' All these defects point to a want of thoroughness in sanitary administration.

"Instances are constantly occurring throughout the country demonstrating the necessity of strict supervision of all places where food is prepared for human consumption; and I would urge the Council to insist on all these being kept in a proper state in every detail.

"Under present conditions it is impossible to efficiently inspect meat sold in the Borough.

"A public abattoir is much needed. All licensed slaughter-houses could then be done away with. An abattoir would certainly be made use of in time, though possibly at first it would not pay its way."

Dairies, Cowsheds, and Milkshops.

The work under the Dairies, Cowsheds, and Milkshops Order receives attention in most of the reports.

The Medical Officer of Health of Brierley Hill writes:—"In my annual report for 1900 I drew attention to the apparent ignorance which prevailed amongst the cowkeepers as to what was required of them under the Dairies and Cowsheds Order. They excused themselves under the plea that they had never seen these Orders. Since then this position has been rectified, and a fresh set of printed Orders has been issued to each one. Some improvements have undoubtedly been made, but I have been over them all again and I cannot see that anything approaching a reasonable interpretation of the requirements has yet been attained. Three of the worst of them have been closed, and in two new erections are being put up. The chief difficulty lies in the fact that these cowsheds are owned by people who cannot, or say they cannot, afford the cost which the alteration to meet the requirements involves; but that does

not strike me as being satisfactory from a public health point of view. The advantage to the public of a clean and healthy milk supply is beyond question."

Following upon this paragraph is a very concise report by the Sanitary Inspector of the district, setting forth the general conditions met with in his inspection of the slaughter-houses.

It would appear from the report of the Medical Officer of Health of Coseley that the question does not receive that attention at the hands of the Authority which its importance demands. He says :—" I found that two cowkeepers keep 20—40 cows, one keeps 15, one 13, one seven, and 10 five or less.

" The air-space which each cow had, calculated by the actual number in the shed at the time of my visit, was in two cases less than 400 cubic feet, in eight it was more than 400 but less than 600 cubic feet, and in the remainder upwards of 600.

" At five of the premises the sheds are brick buildings, at the others wooden ones, some with galvanised iron roofs. They are all ventilated, either in side or roof, some not efficiently. The lighting was mostly very bad, at four no lighting at all, and in others the window area being far too small. There would be more light if the glass was kept clean, which it was not.

" All have bricked floors, but not more than one or two showed any appearance of being kept in the clean condition directed by the regulations. The drain channels in many cases are badly laid and uneven.

" In five cases the drainage is not conveyed away to a suitable distance from the shed, in the manner described in the regulations.

" In some cases the fodder is kept in the shed.

" The shed at Parkfield Colliery, which I mentioned in my last annual report as not being fit to be recognised as a cow-shed at all, is still in the same condition, and I am still of the

same opinion. A shed in Barlow Street, which I inspected at four p.m., is in a bad condition. The air in the shed was very foul indeed. It seemed to be a case of gross cruelty to animals.

" In no case did there seem to be any practice of grooming the cows or washing the udder before milking."

The Medical Officer of Health of the Borough of Newcastle writes :—" The condition of the cowsheds during 1902 (since adopting the bye-laws) has been greatly improved. Two cowsheds have been closed as unsatisfactory and not fulfilling the conditions of the bye-laws."

The Medical Officer of Health of Quarry Bank writes :—" The dairies are kept clean, but are in many instances structurally unfit for the purpose they are intended to serve.

" The cowsheds, speaking generally, are not a credit to the owners, either as to structure or cleanliness. Ventilation receives very little consideration, and cleansing of the floor, and particularly of the cattle, is much neglected. The Council should, I think, appoint a small committee to watch these matters and lay down certain minimum requirements. The one redeeming feature is that most of the cattle are grazed during the greater part of the year, stall-feeding, apart from very cold weather, being the exception. As the milk produced in your district is nearly all consumed locally, the importance of this question to your district cannot be overrated."

I quote the following satisfactory paragraph from the report of the Medical Officer of Health of Smethwick :—" The new regulations came into operation on January 1st, 1902. The old register has been revised, and there are now registered 100 milkshops and 13 cowsheds. During this year copies of statutory regulations and other printed matter bearing on the question, were sent to each purveyor of milk and cowkeeper. The cowsheds have all been thoroughly renovated, and proper provision for lighting, ventilation, and drainage secured. The floors have been made impervious to wet, and new and improved feeding troughs have been provided, and in some cases where the surface of the walls was uneven, they have been

rendered in cement up to a height of four feet, in order to prevent lodgment of dirt. The general condition of the cowsheds is now entirely satisfactory, and the local cowkeepers must be credited with having, at great expense, done their best to comply with requirements."

The Medical Officer of Health of the Borough of Stoke-upon-Trent writes:—"There are in the Borough 14 dairies and cowsheds, and 30 milkshops. During the year 85 inspections were made.

"The regulations of the Local Government Board came into force in the Borough in November, 1901.

"Milkshops are, as a whole, kept in a cleanly state, though the place for keeping the milk is not always satisfactory.

"In many instances the cubic space per cow is much below 800 feet.

"In most cases greater care is necessary in watching the condition of the air in the sheds. In some instances fodder is stored in direct aërial communication with the sheds. The lighting of some should be improved. In a few instances I have found the sheds exceptionally well kept, while others are filthy, especially the floors. The drainage arrangements of all are good, but accumulations of manure are frequently much too near the doors and ventilation openings.

"In past years I have pointed out the necessity of having a veterinary surgeon to inspect and report on the cows in the sheds.

"As in the case of slaughter-houses, the defects found indicate a lack of thoroughness in inspection and administration.

Canal Boats.

In a few instances only does the question of canal-boat inspection receive notice in the reports under review, and in none of these are there any remarks which call for special attention.

Lodging-Houses.

There are no remarks in any of the reports under this heading which call for comment.

Bakehouses.

Most of the reports mention the fact that the bakehouses are regularly inspected, but few contain any observations under this heading which call for special notice.

As regards under-ground bakehouses, one anticipated, in view of recent legislation, that special mention would have been made of such in this year's reports, but apparently there are very few in any of the districts of the Administrative County.

Factories and Workshops.

Hitherto, this question has not received much notice in the annual reports of Medical Officers of Health, but, as one anticipated, in view of the new Factory Act, which came into operation in January, 1902, considerable space is devoted to the results of numerous inspections which have been made in most districts under the Act. As time goes on, it will no doubt be found that the work will grow, and it behoves Authorities to consider whether the existing staffs in some of the larger urban districts are adequate under the new order of things. It is impossible to summarize at all fully the work which has been done in this department during the year, but the following extracts from the reports under review will convey some idea of it.

The Medical Officer of Health of Amblecote writes:—"I have personally inspected the factories and workshops during the year, and have made recommendations for the abatement of nuisances and better ventilation. Speaking generally, the factories in this district are well managed so far as internal cleanliness goes, with a few exceptions which have come under my notice and required attention. The external sanitary conveniences are most at fault, not so much perhaps from structural defects as the absence of any system of management. Where a large number

of people are daily making use of these conveniences, very serious nuisances will arise unless there is some regular and systematic supervision. I have pointed this out in several instances, and of course, if this is not sufficient, we must proceed in the ordinary way. It is certain now, that nuisances injurious to health can no more be permitted to exist about factories and workshops than such nuisances can be permitted about dwelling-houses."

The Medical Officer of Health of Biddulph writes:—"In reply to enquiry, the Clerk is unable to inform me of any resolution, in the minute-book of the Council, dealing with this matter. There has been an understanding that Mr. Gibson should prepare a register, and this, I believe, has been partly done. I have personally visited, with Mr. Gibson, samples of various kinds of workshops, and have advised him as to various points to meet the requirements of the new Act. Speaking in general terms, Biddulph is a district to which the Act has only small application, there being neither factories nor workshops of any particular magnitude."

The Medical Officer of Health of Bilston gives a summary of the powers of Sanitary Authorities under the recent Act, and concludes as follows:—"The preliminary work entailed in carrying out this Act has taken up a good deal of time. There are 97 workshops in the district, and all have been inspected by me or the Sanitary Inspector. In all, an abstract of the Act was posted up; the cubic air space and ventilation were satisfactory. They were found in a clean condition with a few exceptions, and in these verbal instructions were all that were required to secure the carrying out of the necessary work. In only one case were there any out-workers, and these all resided in a neighbouring district, to the Medical Officer of which the list of names was forwarded. The bakehouses, 20 in number, on the whole were in a satisfactory condition as to cleanliness, drainage, sanitary conveniences, water-supply, and freedom from wet floors. There are no underground bakehouses in this district."

The Medical Officer of Health of Coseley writes:—"The Factories and Workshops Act, 1901, which throws important duties upon District Councils, has not yet been so thoroughly gone into by the Council as I would wish, but I hope that in the near future it will be considered again with a view to finally arranging for the work to be thoroughly and systematically done.

"A preliminary register of workshops has been compiled by copying that of the Factory Inspector. This shows that there are 80 workshops in the district. There are also 53 factories.

"A large proportion of the workshops are domestic workshops, where members of the family (often only the wife) work at tailoring or dressmaking. In ordinary house-to-house inspection I have come across cases of out-workers who were not on the register.

"There are 8 bakehouses, all classified as workshops, mechanical power not being used in any of them. There are no underground bakehouses as far as I am aware. I have received as yet very few lists of out-workers, and I recommend that neighbouring Authorities be communicated with to ascertain whether any additions require to be made to these.

"There are not many places in the district where home-work is given out. No case of infectious disease was reported in homes of out-workers. I have myself inspected 18 workshops, including one bakehouse. I found one workshop, a boot manufacturer's, very dirty, and it was cleaned after notice. I found a closet situated too close to the bakehouse and it was removed.

"I found six nuisances under the Public Health Act at the remaining premises, and directed the Inspector of Nuisances' attention to the same.

"Abstracts of the Act were affixed where necessary under sec. 133."

The Medical Officer of Health of Handsworth writes:—"The 159 workrooms and workshops registered in the district were visited on 307 occasions. Notices to cleanse and lime-wash were served in 17 cases, and notices to abate nuisances were given in 21 cases. In nine cases privies were converted into water-closets, and in four cases further closet accommodation was provided; in seven cases drains were opened, repaired, and properly trapped; in one case the ventilation was improved. In one bakehouse a drain opening into the bakehouse was removed to the outside of the building. There are eight domestic workshops in the district, in which are carried on the following trades—four dressmakers, two laundries, one tailor, and one picture-frame maker."

The Medical Officer of Health of Heath Town writes:—"There are 40 workshops and factories in your district which I have seen, and report that many workshops are totally unprovided with ventilation, and unfit for the purposes for which they are used; in many instances they are rooms in a house, either upstairs or down. It is reported that the Local Board are likely to issue some regulations on this subject, so it will be wise to await events."

With reference to the above extract, I am not aware of what regulations are referred to, but it would appear, from the reported state of the workshops, that no delay on the part of the Authority in exercising their powers under the Act is desirable.

The Medical Officer of Health of Leek Urban District reproduces the text of his report to the Home Office, which contains an abstract of a report made to the District Council by the Sanitary Inspector. As this abstract deals with the administrative duties under the Act, it may be useful to include it in this summary, as follows:—"'What the provisions of this Act mean in added work to the Health Department of the Council can only be faintly surmised at the present time. The work involved in visiting and compiling a systematic register of workshops is very considerable, and to be supplemented by periodical re-inspections with a view to ensure a compliance

with the provisions of the Act, will put a heavy strain on the Council's officials. The difficulties arising from the overlapping of different Authorities, dual control, and the various interests involved, are points which will require special study and tact with a view to prevent friction between the Council and its officers on the one hand, and the factory inspectors on the other.' "

The Medical Officer of Health of the Borough of Newcastle states that he and the Inspector have visited 352 factories and workshops, and gives a summary of the work done.

The Medical Officer of Health of Quarry Bank comments pretty fully upon the inspection which has been made of workshops, of which there are 100 in the district, by the Inspector. He concludes as follows :—" I have requested your inspector to insist upon the following conditions :—

" 1. The removal of rubbish of all kinds.

" 2. The removal of fowl, pigeons, and all other animals.

" 3. Periodical cleansing, with whitewashing of walls once a-year.

" 4. Proper closet accommodation, having in view the number and sex of the workers.

" I would further advise, just as I would in all public rooms, schools, clubs, public-houses, and refreshment rooms, that in all workshops where persons are employed, other than members of the same family, water-closets should be insisted on, as the risk of conveying such diseases as enteric fever is obvious where the excreta are not immediately removed."

The Medical Officer of Health of Rowley Regis writes :— " The new Act has caused much new work in this department, in so far as new obligations touching sanitary conditions of workshops, etc., are imposed upon the Council, but I am very pleased to say that, with the extra assistance given to the inspector of nuisances, who has been appointed by this Council Factory and Workshop Inspector, a good start has been made towards producing in the numerous factories and workshops the sanitary conditions which the Act requires."

He reproduces a report by the inspector, and concludes as follows:—"The most attention has been devoted to the sanitary condition of the domestic factories and workshops, but in a district of this size, where such a vast number of dwelling-houses are constituted domestic workshops, and where such a quantity of fresh work is added on to the previous work, and is so new to both officials and people, much more than a general inspection of the district and registration of the factories and workshops has been impossible.

"The abolition of the custom of keeping domestic animals, etc., in workshops has not been accomplished without considerable opposition, but I am pleased to say that up to the present we have not had occasion to resort to legal proceedings to enforce these or any of our demands.

"A most pleasing feature is the improvement in the appearance, cleanliness, and general sanitary condition of the workshops throughout the district."

In Sedgley it is stated that the work under the Act has not been gone into with any thoroughness by the District Council, but it would appear that they are considering the advisability of relieving the sanitary inspector of part of his present duties to allow of his devoting some time to the work.

The Medical Officer of Health of the Borough of Stafford, having summarised the duties under the Act, says:—"The preliminary work entailed in carrying out this Act has taken up a good deal of time, and the services of the assistant inspector were retained until it was completed. Registers of all the workshops had to be made out, and their cubic capacity and other particulars had to be entered. A special register for bakehouses, with similar particulars, must be kept; and also one for out-workers, giving name and address as well as name and address of employers." The facts as ascertained by inspection are then set forth.

In the Borough of Stoke-upon-Trent, it would appear that no systematic inspection of factories and workshops has taken place during the year, and the Medical Officer of Health

says :—" No special effort has been made by the Council to ascertain what workshops are situated in the district, so that it is doubtful if the register is complete."

In Stone Urban District a register has been made of the different workshops, but many appear to have been done away with during the past five years, the practice now being for the workers to work in factories.

The Medical Officer of Health of Tipton writes with reference to factories and workshops :—" During the year these have been systematically inspected, and, as a whole, the sanitary conditions of the various places have been satisfactory. They are, as a rule, clean, with plenty of air space, and well ventilated ; the drainage and sanitary conveniences are suitable. In one case of typhoid fever there was a possible cause of infection from a defective privy, from which a very offensive odour not infrequently arose. One of the workmen complained, and eventually suffered from typhoid fever. In the absence of any other assignable cause, I attributed the disease to the privy. The owners promised at once to rectify the nuisance, and during the interim other arrangements were made for the men. In two cases we had to prohibit the making of clothes in houses infected with scarlatina ; we had no trouble, the contractors and workers at once complied with the request. Mr. Clifton, the sanitary inspector, keeps the register, which is posted up-to-date, and administers the regulations as far as his department is concerned. I have had to refuse one application, as I found that the house was dirty, ill ventilated, and the sanitary conveniences unsuitable ; the applicant, a dressmaker, withdrew her application. There are at present 130 workshops on the register."

In Tunstall it appears that all the known workshops have been registered, and the Medical Officer of Health classifies them according to the work carried on, and gives a general description of the sanitary conditions as the outcome of an inspection by himself and the sanitary inspector.

The Medical Officer of Health of Cannock Rural District writes :—" I regret to say that I have not been able to make that detailed inspection of the factories and workshops in the

district during the year which I should have liked, but I hope in 1903 to be in a position to investigate carefully into the sanitary requirements of such. The extent and variety of infectious disease during the year has given me little time to devote to such, and the inspector's time has been equally entrenched upon, both in work connected with epidemic outbreaks and in the supervision of various schemes of drainage and water-supply. The re-arrangement of the inspector's duties will permit us to make a systematic inspection of every factory, workshop, and bakehouse in the coming year. As Certifying Factory Surgeon, I have been kept in touch with the general conditions prevalent. The works are mainly confined to edge-tool shops, iron and axle manufacture, with the various processes in connection therewith ; also to brickyards and manufacture of tiles. In a general way the sanitary conditions prevalent are satisfactory, but I trust to examine more in detail into the questions of water-supply, drainage, provision of sanitary conveniences, cubical space, ventilation, cleanliness, and lime-washing."

In Cheadle Rural District it appears that 98 workshops have been registered, and it is stated that in a few instances overcrowding and structural defects were discovered and remedied.

In Leek Rural District there are 30 workshops ; all these were inspected and no cause of complaint was met with.

The Medical Officer of Health of Mayfield Rural District writes :—" Beyond making a general inspection of the factories and workshops, there has not been opportunity for doing much under the Act of 1901. Almost all the places included in the Act have been inspected, and observations made. The carrying out of any remedial orders required will be dealt with during the year 1903. There is only one mill in your district to which the order as to fire escape applies, and I find that this mill has ladder escapes all round."

In Tamworth Rural District the sanitary inspector has been appointed inspector under the Act, and the Medical Officer of Health writes :—" All the factories have been in-

spected with a view to ascertaining the means of egress in case of fire, and these particulars are also given. Attention has been given to the various details which come under the supervision of the District Council, such as the sanitary condition of the workshops, cleansing, lime-washing, ventilation, air space, and the prevention of overcrowding. Notices have been served under these headings, and improvements effected to a considerable extent.

"As regards the question of out-workers, particular attention has been given, more particularly on account of the prevalence of scarlet fever in the district, and great care has been exercised to prevent any wearing apparel which had been given out being, in the event of illness, returned without having been previously disinfected at the steam disinfector."

Mortuaries.

The question of providing mortuaries does not appear to receive that attention in the reports which its importance deserves, considering the inadequate provision which, so far, has been made throughout the County. One does not like to see, in accounts of inquests in the daily press, severe comments by coroners upon the absence of such provision.

The Medical Officer of Health of Bilston states that, at last, a well-fitted mortuary has been provided.

The Medical Officer of Health of the Borough of Stoke-upon-Trent states that the need for a mortuary has on more than one occasion during the year been keenly felt. He also states that the Corporation now intend to provide one.

The Medical Officer of Health of Uttoxeter Rural District writes:—"The necessity for a mortuary for the district has again been brought to your notice during the past year. In one case the decomposed body of a man was found in the river Dove, and was taken to the Workhouse; in another a woman's corpse was hawked about for five hours before anyone would receive it, and was then deposited in a stable, where a *post-mortem* had to be performed."

Smoke Nuisances.

Notwithstanding the field there is in this County for action under the smoke nuisance clause of the Public Health Act, the question receives very little mention in most of the reports under review.

The Medical Officer of Health of the Borough of Stoke-upon-Trent writes :—" During the past year the sanitary inspector has made 15 observations, but no action has been taken.

" From careful observations, I am able to state that not less than half the black smoke produced in the day-time is from boiler furnaces. It cannot be disputed that the chimneys in connection with those furnaces, being higher than those of kilns and ovens, do not cause so great direct nuisance or annoyance, but a great deal could be done to diminish the general smoke nuisance by dealing with the smoke from boiler furnaces. This is comparatively easy, and an exercise of its powers with firmness by the Authority would not press unduly on anyone, it would only mean ' care ' in attending to the furnaces instead of ' carelessness,' and a saving of coal to the manufacturer. With respect to the smoke from kilns and ovens, a conference is, I understand, to be held in the district. It is much to be desired that some means may be found of diminishing the nuisance from these. Here again more careful stoking would be a saving of fuel. The time for starting kilns might often be more wisely chosen."

Bye-Laws.

In a good many districts in the Administrative County either no Bye-laws have been adopted or those in force are out of date. It is most desirable that Bye-laws, in accordance with modern ideas, should be in force in all districts.

In Sedgley it would appear that the District Council are now framing Bye-laws, and the Medical Officer of Health hopes that they will soon be in operation.

As regards the Borough of Stoke-upon-Trent, in view of what has been said under the heading " Sewerage and Sewage Disposal," it is satisfactory to note that new building Bye-laws

came into force at the end of the year, which provide against several faults which appear to be too common in that town. The Medical Officer of Health again points out, however, that new or improved Bye-laws are still needed for dealing with smoke nuisances, houses let in lodgings, and slaughter-houses.

The Medical Officer of Health of Leek Rural District writes :—" The Bye-laws relating to new streets and buildings came into operation in the Norton District in December. The plans of all houses to be erected in this district have now to be submitted to the Council before building operations can be proceeded with."

In Newcastle Rural District new Bye-laws have been adopted, and will shortly come into force with reference to dairies, cowsheds, and milkshops, cleansing of footways, new buildings, and nuisances.

In Uttoxeter Rural District, new Bye-laws, regulating new buildings and slaughter-houses, have been adopted.

Adoptive Acts.

In Stoke-upon-Trent Rural District the following Acts have been adopted with the limitations indicated :—

(a) Infectious Diseases (Prevention) Act, 1890, Sections 4 to 9 inclusive, 13, 14, and 16 to 20 inclusive.

(b) Public Health Acts Amendment Act, 1890, so far as it is applicable to rural districts.

GEO. REID,
County Medical Officer.

Stafford,
September, 1903.

NOTE —In the following tables the individual zymotic mortality is given in order to indicate readily the class of disease that has mostly contributed to the gross rate. Apart from this, no accurate deductions can be drawn from such figures for one year only.

URBAN.

Table showing Population, Number of Persons per Acre, Birth and Death-rates, as well as the Death-rates at all ages and among Children under 1 year, and the Death-rates from Zymotic Diseases, Phthisis, Diseases of the Respiratory Organs, &c.

DISTRICT.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	General zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.																	
													Fevers.											
	Census, 1901.	Estimated to middle of 1902.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Typhus.	Enteric.	Other Continued.	Diarrhœa.	Phthisis.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism. Cirrhosis of Liver.	Premature Birth.
Amblecote ..	3128	3158	4·7	27·5	12·9	138	1·26	..	1·26	..	..	..	..	..	..	..	0·63	0·63	1·89	2·53	..	..	..	0·31
Audley	13683	13700	1·7	38·0	13·7	99	0·36	..	0·07	0·14	..	0·07	..	..	..	0·07	0·29	0·87	1·97	0·58	0·07	..	0·14	0·80
Biddulph	6247	6367	1·2	35·4	18·6	150	2·19	..	1·09	..	0·31	0·15	.	0·15	..	0·47	0·78	1·25	2·19	2·67	..	0·15	0·15	0·31
Bilston	24034	24100	12·9	38·7	17·7	152	2·61	..	0·83	0·20	0·20	0·29	..	0·08	..	0·99	1·45	0·45	2·40	0·99	0·16	..	0·08	0·58
Brierley Hill..	12042	12228	11·9	33·6	16·2	138	1·63	..	0·81	0·16	0·08	..	..	0·08	..	0·49	1·14	0·65	1·30	1·63	..	..	0·24	0·81
Brownhills ..	15252	15828	1·8	38·8	12·6	156	1·20	..	0·25	0·06	0·38	0·06	..	..	..	0·44	0·50	0·31	1·32	0·69	0·06	..	0·31	1·01
Burslem.....	38766	39606	15·3	37·6	20·2	172	3·05	..	0·68	0·17	0·17	0·83	..	0·15	..	1·03	0·95	0·83	2·07	0·85	0·05	..	0·15	0·85
Cannock.....	23974	24000	2·9	40·8	16·7	132	1·87	..	0·70	0·46	0·12	0·08	..	0·16	..	0·33	0·91	0·50	1·58	1·70	..	0·58	0·20	1·12
Coseley	22219	22218	5·5	36·3	17·4	166	1·75	..	0·67	0·04	0·13	0·40	..	0·22	..	0·27	0·67	0·63	1·66	1·75	0·04	..	0·13	0·90
Darlaston	15395	15469	18·8	40·9	21·1	203	2·39	..	0·38	0·38	0·45	0·19	..	0·32	..	0·64	0·58	0·51	3·74	1·03	..	..	0·19	1·29
Fenton	22742	24000	15·0	37·7	16·0	159	1·41	..	..	0·04	0·21	0·33	..	0·08	..	0·75	0·83	0·87	1·50	1·37	..	0·16	0·12	0·58
Handsworth ..	52921	56141	15·4	24·7	11·1	107	0·92	..	0·18	0·14	0·28	0·14	..	0·10	..	0·07	0·97	0·65	0·74	0·90	0·05	0·07	0·28	0·33

URBAN.

Deaths occurring during the year 1902, classified according to Diseases, Ages, and Localities, together with Births registered during the year.

District.	Registered Births.	Deaths from all causes.	Deaths from all causes at subjoined ages.						Deaths from subjoined causes.																														
			Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.	Fevers.			Epidemic Influenza.	Diarrhœa.	Enteritis.	Puerperal Fever.	Erysipelas.	Other Septic Diseases.	Phthisis.	Other Tubercular Diseases.	Cancer. Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respirat'y Organs	Alcoholism. Cirrhosis of Liver.	Venereal Diseases	Premature Birth.	Diseases & Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other Causes.	
															Typhus.	Enteric.	Other Continued.																							
Amblecote ..	87	41	12	4	..	1	16	8	..	4	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	2	6	8	..	..	..	..	1	1	6	..	1	9	
Audley	521	189	52	29	6	9	45	48	..	1	2	..	1	..	..	..	..	..	1	6	..	1	..	4	8	12	27	8	1	..	2	..	11	2	16	4	3	79	
Biddulph	226	119	34	19	5	4	28	29	..	7	..	2	1	..	..	1	..	..	3	..	..	..	..	5	2	8	14	17	..	1	1	..	2	4	10	8	..	33	
Bilston	934	427	142	75	17	18	117	58	..	20	5	5	7	..	..	2	..	9	24	12	..	2	..	35	6	11	58	24	4	..	2	..	14	4	26	15	..	142	
Brierley Hill..	412	199	57	19	5	8	59	51	..	10	2	1	..	1	..	1	..	2	6	2	..	..	2	14	6	8	16	20	.	..	3	2	10	2	8	5	1	77	
Brownhills ..	615	200	96	28	5	8	45	18	..	4	1	6	1	..	..	..	..	1	7	..	..	..	..	8	3	5	21	11	1	..	5	..	16	..	8	9	1	92	
Burslem	1493	803	258	115	39	34	239	118	..	27	7	7	33	2	..	6	..	2	41	9	3	3	7	38	33	33	82	34	2	41	6	..	34	4	46	23	5	275	
Cannock	981	402	130	48	22	14	110	78	..	17	11	3	2	1	..	4	..	1	8	11	3	..	..	22	13	12	38	41	..	14	5	..	27	4	19	13	1	132	
Coseley	807	387	134	48	13	15	95	82	..	15	1	3	9	..	..	5	..	9	6	2	3	1	..	15	12	14	37	39	1	..	3	1	20	4	23	5	2	157	
Darlaston	633	327	129	45	13	9	81	50	..	6	6	7	3	..	..	5	..	4	10	2	..	..	..	9	14	8	58	16	..	..	3	..	20	3	21	11	..	121	
Fenton	905	386	144	49	9	13	114	57	..	..	1	5	8	..	..	2	..	3	18	1	..	..	..	20	9	21	36	33	..	4	3	..	14	7	30	17	1	153	
Handsworth..	1392	626	150	59	29	24	205	159	..	10	8	16	8	1	..	6	..	4	4	8	1	3	4	55	14	37	42	51	3	4	16	2	19	1	60	10	3	236	

URBAN—continued.

District.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	General zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population								Phthisis.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism. Cirrhosis of Liver.	Premature Birth.
												Fevers.										
	Census, 1901.	Estimated to middle of 1901.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Typhus.	Enteric.	Other Continued.	Diarrhœa.							
Heath Town..	9441	9650	13·0	41·9	16·7	135	1·96	..	0·10	..	0·72	..	..	..	..	1·14	0·62	0·41	3·73	0·82	..	0·20	..	0·62
Kidsgrove....	4552	4640	4·2	37·5	19·3	195	0·86	..	0·43	..	..	0·43	..	..	..	..	1·50	0·64	1·07	0·64	..	0·64	..	1·50
Leek	15484	15663	10·7	26·9	18·2	165	1·91	..	1·34	..	0·12	0·12	..	0·12	..	0·19	1·97	1·14	0·70	0·51	0·06	0·06	0·06	0·76
Lichfield.....	7902	7902	2·3	25·9	13·6	107	1·13	..	0·88	..	..	..	..	..	..	0·25	1·64	0·75	1·39	0·50	..	..	0·25	1·13
Longton.....	35815	36120	18·0	39·3	22·5	195	2·10	..	..	0·13	0·30	0·60	..	0·16	0·02	0·85	1·55	0·77	3·43	0·94	0·02	1·21	0·24	0·63
Newcastle....	19914	20064	29·9	32·5	15·8	134	0·54	..	0·29	..	0·09	..	..	0·04	..	0·09	0·29	0·34	1·74	1·79	0·04	0·39	0·19	0·64
Perry Barr....	2348	2360	0·5	28·8	13·5	118	1·69	..	..	1·27	0·42	..	..	..	..	..	0·42	..	0·84	1·27	..	..	..	0·84
Quarry Bank..	6912	6935	7·0	37·0	16·1	120	2·73	..	1·15	0·14	0·72	0·14	..	..	..	0·57	0·57	0·72	1·58	1·15	0·28	..	0·72	0·43
Rowley Regis.	34670	35400	9·6	36·9	14·5	128	1·29	..	0·59	0·19	0·05	0·16	..	0·11	..	0·16	0·45	0·36	1·78	0·64	..	0·02	0·33	1·29
Rugeley.....	4447	4450	7·4	26·9	13·4	133	0·89	..	0·22	0·22	..	0·22	..	..	..	0·22	0·89	1·12	2·02	1·57	..	0·22	0·22	0·44
Sedgley.....	15951	15960	4·2	38·4	14·8	127	1·44	..	0·50	0·12	0·19	0·12	..	0·19	..	0·31	0·37	0·62	1·00	1·06	0·06	0·37	0 19	0·81
Short Heath..	3531	3585	3·3	45·1	12·8	129	0·83	..	0·55	..	..	..	..	..	..	0·23	..	0·28	1·95	0·28	0·28	0·28	..	0·28
Smallthorne..	6263	6555	11·9	40·4	18·1	181	1·52	..	0·76	..	0·15	..	..	..	..	0·61	1·06	1·06	5·33	0·30	..	0·15	0·30	0·30
Smethwick....	54539	55700	28·8	35·4	13·8	127	1·43	..	0·34	0·35	0·23	0·12	..	0·23	..	0·14	0·75	0·55	1·38	1·50	0·03	0·05	0·23	0·84
Stafford	†19495	*19582	19·4	28·3	16·4	115	1·42	..	0·15	0·20	0·05	0·81	..	0·10	..	0·10	1·68	0·81	1·42	0·86	..	0·61	0·15	0·40

* The total estimated population is 21117, but a deduction of 1535 has been made, that being the estimated number of persons in Public Institutions within the borough, but not belonging to it.

† Excluding Public Institutions.

URBAN—continued.

District.	Registered Births.	Deaths from all causes.	Deaths from all causes at subjoined ages.						Deaths from subjoined causes.																												
			Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Smallpox.	Measles	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.	Fevers.			Epidemic Influenza.	Diarrhœa.	Enteritis.	Puerperal Fever.	Erysipelas.	Other Septic Diseases.	Phthisis.	Other Tubercular Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respiratory Organs	Alcoholism. Cirrhosis of Liver.	Venereal Diseases	Premature Birth.	Diseases & Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other Causes.
															Typhus.	Enteric.	Other Continued.																					
Heath Town..	405	162	55	23	8	9	39	28	..	1	..	7	..	2	..	..	..	3	11	..	1	..	..	6	3	4	37	8	2	..	..	..	6	1	11	12	2	45
Kidsgrove....	174	90	34	6	6	4	21	16	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	7	3	3	5	3	..	3	..	..	7	..	12	2	..	41
Leek	422	286	70	33	12	11	93	67	..	21	..	2	2	..	..	2	..	2	3	10	..	..	..	31	8	18	11	8	1	1	1	1	12	1	35	5	1	110
Lichfield..	205	108	21	8	2	7	33	37	..	7	..	..	..	..	..	..	..	..	2	1	..	1	1	13	..	6	11	4	..	..	2	..	9	..	14	2	1	34
Longton	1420	815	278	105	17	31	279	105	..	..	5	11	22	1	..	6	1	..	31	15	2	1	3	56	14	28	124	34	1	44	9	4	23	4	52	22	7	295
Newcastle....	654	318	88	35	5	19	108	63	..	6	..	2	..	..	..	1	..	1	2	13	7	..	..	6	7	7	35	36	1	8	4	..	13	4	29	6	2	128
Perry Barr....	68	32	8	3	2	3	8	8	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	3	..	..	..	..	2	..	1	7	1	11
Quarry Bank..	257	112	31	21	5	3	26	26	..	8	1	5	1	..	..	..	..	2	4	5	..	1	..	4	6	5	11	8	2	..	5	..	3	2	5	6	..	28
Rowley Regis.	1307	516	168	78	20	23	127	100	..	21	7	2	6	1	..	4	..	2	6	22	3	3	1	16	5	13	63	23	..	1	12	2	46	4	32	21	2	198
Rugeley.....	120	60	16	10	..	1	20	13	..	1	1	..	1	..	..	..	..	..	1	2	..	..	..	4	4	5	9	7	..	1	1	..	2	1	5	..	1	14
Sedgley	614	237	78	27	5	12	58	57	..	8	2	3	2	..	..	3	..	1	5	4	..	1	..	6	8	10	16	17	1	6	3	..	13	10	21	9	1	87
Short Heath..	162	46	21	5	3	..	6	11	..	..	2	..	..	1	..	..	..	..	1	5	..	..	..	..	..	1	7	1	1	1	..	..	1	..	1	..	..	24
Smallthorne..	265	119	48	14	2	3	28	24	..	5	..	1	..	..	..	..	..	2	4	..	..	..	..	7	6	7	35	2	..	1	2	..	2	..	6	2	2	35
Smethwick....	1974	773	252	98	42	38	231	112	..	19	20	13	7	1	..	13	..	4	8	26	1	3	8	42	21	31	77	84	2	3	13	4	47	10	54	16	5	241
Stafford	556	323	64	30	20	16	110	83	..	3	4	1	16	1	..	2	..	1	2	1	1	2	1	33	6	16	28	17	..	12	3	3	8	3	26	6	1	126

URBAN—continued.

District.	Population at all ages. Census, 1901.	Population at all ages. Estimated to middle of 1901.	Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	General zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population. Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Fevers. Typhus.	Fevers. Enteric.	Fevers. Other Continued.	Diarrhœa.	Phthisis.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism. Cirrhosis of Liver.	Premature Birth.
Stoke-on-Trent	30458	31374	17·1	32·8	15·4	162	1·21	..	0·16	0·06	0·25	0·25	..	0·06	..	0·41	0·98	0·60	1·52	1·24	0·03	0·22	0·28	0·57
Stone	5680	5680	5·3	27·6	22·1	152	0·70	..	..	..	0·17	0·17	..	0·35	..	..	2·46	1·76	2·28	0·35	..	0·54	0·54	1·40
Tamworth....	7271	7353	25·8	27·8	13·6	117	0·68	..	..	0·27	0·27	0·13	..	..	..	..	0·81	0·95	0·68	0·40	0·13	0·13	0·27	1·08
Tettenhall....	5337	5357	4·3	26·8	14·1	118	0·93	..	..	0·18	0·37	..	..	..	..	0·37	0·74	0·37	2·42	1·30	0·56	..	0·18	0·18
Tipton	30543	31000	14·2	36·1	17·2	156	2·32	..	0·06	0·90	0·55	..	..	0·29	..	0·51	0·58	0·35	1·83	1·90	..	0·06	0·25	0·67
Tunstall.....	19492	19962	19·6	40·8	21·3	177	2·35	..	0·60	..	0·15	1·10	..	0·20	0·05	0·25	1·55	0·40	2·60	2·20	..	..	0·05	0·45
Uttoxeter	5133	5168	5·2	33·6	17·2	120	0·38	..	..	..	..	..	..	0·19	..	0·19	0·96	0·96	2·32	0·58	..	0·38	0·38	0·77
Wednesbury..	26554	26700	11·6	35·7	16·8	155	1·94	..	0·52	0·48	0·41	0·07	..	0·18	..	0·26	0·71	0·33	2·50	1·19	..	..	0·29	0·59
Wednesfield ..	4883	5024	1·9	36·6	12·5	108	0·59	..	..	..	0·19	..	..	0·19	..	0·19	0·59	0·79	1·59	1·59	0·19	..	0·19	1·19
Willenhall....	18515	18600	14·8	35·1	17·0	151	1·34	..	0·05	0·21	0·32	0·26	..	0·26	..	0·21	1·34	0·21	1·93	0·80	0·05	0·21	0·05	0·64
Totals and Averages.	645533	657599	7·5	35·0	16·3	147	1·63	..	0·38	0·21	0·23	0·26	..	0·14	0·00	0·38	0·93	0·61	1·85	1·16	0·04	0·24	0·21	0·73
76 large towns in England, average population.	..	195564	*	30·0	17·4	145	2·12	0·12	0·49	0·19	0·37	0·26	0·15			0·54	*	*	*	*	*	*	*	*

* Not given in Registrar General's Returns.

URBAN—continued.

District.	Registered Births.	Deaths from all causes.	Deaths from all causes at subjoined ages.						Deaths from subjoined causes.																												
			Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.	Fevers. Typhus.	Fevers. Enteric.	Fevers. Other Continued.	Epidemic Influenza.	Diarrhœa.	Enteritis.	Puerperal Fever.	Erysipelas.	Other Septic Diseases.	Phthisis.	Other Tubercular Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respirat'y Organs	Alcoholism. Cirrhosis of Liver.	Venereal Diseases	Premature Birth.	Diseases & Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other Causes.
Stoke-on-Trent	1030	484	166	52	17	16	146	87	..	5	2	8	8	..	..	2	..	1	13	9	2	..	2	31	16	19	48	39	1	7	9	1	18	2	37	10	4	190
Stone	157	126	24	4	5	2	41	50	..	..	..	1	1	..	..	2	..	..	..	4	..	..	..	14	5	10	13	2	..	3	3	..	8	..	8	..	2	50
Tamworth	205	100	24	9	2	5	30	30	..	..	2	2	1	..	..	..	..	..	..	3	..	..	..	6	4	7	5	3	1	1	2	..	8	..	12	3	..	40
Tettenhall	144	76	17	7	4	1	16	31	..	..	1	2	..	1	..	..	..	1	2	1	..	..	..	4	4	2	13	7	3	.	1	..	1	..	5	2	..	26
Tipton	1122	535	175	112	22	10	130	86	..	2	28	17	..	..	..	9	..	5	16	25	..	1	1	18	7	11	57	59	..	2	8	..	21	..	29	11	4	204
Tunstall	816	426	145	84	10	11	138	38	..	12	..	3	22	..	..	4	1	1	5	2	2	1	..	31	6	8	52	44	..	..	1	2	9	2	31	4	1	182
Uttoxeter	174	89	21	7	5	2	22	32	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	5	2	5	12	3	..	2	2	..	4	..	8	..	..	43
Wednesbury	954	450	148	71	18	15	117	81	..	14	13	11	2	..	..	5	..	2	7	21	2	1	..	19	11	9	67	31	..	..	8	4	16	1	30	13	1	162
Wednesfield	185	63	20	2	1	6	21	13	..	..	..	1	..	..	..	1	..	..	1	2	..	..	..	3	4	4	8	8	1	..	1	1	6	..	2	4	..	16
Willenhall	654	317	100	43	13	12	80	69	..	1	4	6	5	3	..	5	..	..	4	7	2	..	..	25	6	4	36	15	1	4	1	..	12	2	14	9	1	150
Totals	23050	10769	3410	1425	409	417	3085	2023	..	257	139	154	171	16	..	92	2	63	257	233	33	25	30	615	276	404	1217	768	30	164	140	27	485	83	753	292	57	3986

RURAL.

District.	Population.		Mean area per person in acres.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	General zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.								Phthisis.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism. Cirrhosis of Liver.	Premature Birth.
													Fever.									
	Census, 1901.	Estimated to middle of 1902.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Typhus.	Enteric.	Other Continued.	Diarrhœa.							
Blore Heath..	2141	2133	6·4	25·3	15·0	129	*Nil*	..	..	..	..	..	..	..	..	..	1·40	0·46	0·93	0·93	..	..	0·46	..
Cannock.....	17861	18125	2·8	33·0	13·3	115	0·93	..	0·11	0·16	0·05	0·27	..	0·11	..	0·22	0·60	0·55	1·37	0·55	0·11	..	0·38	0·60
Cheadle	24657	24657	2·1	32·3	17·9	102	0·89	..	0·16	0·04	0·12	0·16	..	0·16	..	0·24	1·70	0·73	0·40	1·17	0·08	0·04	0·28	0·52
Eccleshall....	5594	5624	5·8	21·3	11·3	108	0·17	..	..	..	..	..	..	0·17	..	..	0·35	0·71	0·88	0·35	..	0·17	..	0·35
Gnosall.....	4697	4700	5·5	27·4	15·9	116	1·27	..	0·21	..	..	1·06	..	..	..	..	1·27	0·85	1·49	1·27	..	..	0·21	0·85
Kingswinford.	19536	20332	0·2	33·9	17·7	144	1·27	..	0·49	0·04	0·19	..	..	0·04	..	0·49	1·13	0·63	1·47	1·57	..	0·04	0·34	0·78
Leek.....	13873	13868	4·9	30·5	14·5	103	0·57	..	0·07	..	..	0·14	..	0·21	..	0·14	0·79	0·96	1·51	0·57	..	0·36	0·14	0·07
Lichfield.....	*25688	*25787	2·4	31·6	14·2	155	1·35	..	0·58	0·15	0·27	0·11	..	0·03	..	0·19	0·81	0·54	1·24	1·31	0·03	..	0·19	1·35
Mayfield.....	4054	4150	5·8	28·6	14·2	117	0·48	..	..	..	0·24	..	..	..	..	0·24	1·20	0·24	0·24	1·68	..	..	..	..
Newcastle....	6513	6594	2·9	29·1	13·4	130	0·75	..	..	0·15	0·15	0·15	..	..	..	0·30	0·90	0·15	0·90	1·06	..	0·30	0·15	1·06

* Not including 1000 Inmates of Burntwood Asylum.

RURAL—continued.

District.	Registered Births.	Deaths from all causes.	Deaths from all causes at subjoined ages.						Deaths from subjoined causes.																														
			Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.	Fevers.			Epidemic Influenza.	Diarrhœa.	Enteritis.	Puerperal Fever.	Erysipelas.	Other Septic Diseases.	Phthisis.	Other Tubercular Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respirat'y Organs	Alcoholism. Cirrhosis of Liver.	Venereal Diseases	Premature Birth.	Diseases & Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other Causes.
															Typhus.	Enteric.	Other Continued.																						
Blore Heath..	54	32	7	..	3	3	5	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	1	2	2	..	..	1	..	..	..	3	3	..	17
Cannock.....	599	242	69	21	10	11	62	69	..	2	3	1	5	..	..	2	..	2	4	3	..	..	..	11	11	10	25	10	2	..	7	..	11	..	21	14	1	97
Cheadle.....	797	442	82	18	17	28	162	135	..	4	1	3	4	1	..	4	..	5	6	10	..	..	8	42	9	18	10	29	2	1	7	..	13	1	73	11	7	173
Eccleshall....	120	64	13	2	3	2	22	22	..	..	..	..	..	..	..	1	..	2	..	1	..	..	..	2	2	4	5	2	..	1	..	..	2	1	12	1	..	28
Gnosall	129	75	15	5	9	1	17	28	..	1	..	..	5	..	..	..	..	..	..	4	..	..	..	6	4	4	7	6	..	..	1	..	4	..	4	5	..	24
Kingswinford.	691	360	100	36	6	5	107	106	..	10	1	4	..	1	..	1	..	..	10	5	..	1	..	23	7	13	30	32	..	1	7	..	16	4	29	14	4	147
Leek	424	202	44	16	4	18	54	66	..	1	..	..	2	1	..	3	..	1	2	7	..	1	1	11	9	12	21	8	..	5	2	1	1	13	2	33	5	60
Lichfield.....	816	367	127	34	13	19	70	104	..	15	4	7	3	1	..	1	..	2	5	9	1	..	..	21	11	14	32	34	1	..	5	..	35	2	35	7	1	121
Mayfield.....	119	59	14	4	4	3	13	21	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	5	1	1	1	7	..	..	..	..	..	..	10	2	..	30
Newcastle....	192	89	25	7	1	7	26	23	..	..	1	1	1	..	..	..	..	3	2	4	..	..	..	6	2	1	6	7	..	2	1	..	7	2	8	4	2	29
Seisdon	326	157	31	13	8	6	39	60	..	..	..	2	1	..	..	..	..	..	..	4	..	..	..	7	7	12	20	6	3	..	..	..	6	2	17	5	4	61

RURAL—continued.

District.	Population.		Mean area per person in acres.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Mortality in children under one year per 1000 registered births.	General zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.																	
													Fever.											
	Census, 1901.	Estimated to middle of 1902.						Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Typhus.	Enteric.	Other Continued.	Diarrhœa.	Phthisis.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism. Cirrhosis of Liver.	Premature Birth.
Seisdon	12897	12894	2·7	25·2	12·1	95	0·23	..	..	..	0·15	0·07	..	..	..	..	0·54	0·93	1·55	0·46	0·23	..	..	0·46
Stafford	10407	10550	4·9	27·0	13·1	91	1·04	..	0·09	..	0·09	0·75	..	0·09	..	..	0·66	0·85	0·66	1·42	..	..	..	0·56
Stoke-on-Trent	4808	4808	0·9	34·9	13·1	107	2·28	0·20	0·41	..	..	1·45	..	0·20	..	..	0·83	0·20	0·83	1·04	..	..	..	0·41
Stone	8365	8436	4·2	24·5	13·6	96	0·71	..	..	0·12	0·35	..	..	0·23	..	..	0·71	0·94	0·59	0·59	..	0·23	..	0·35
Tamworth.. Staffs. portion	4800	4807	4·5	29·1	11·6	85	1·04	..	..	0·41	..	0·21	..	..	..	0·41	0·62	1·04	1·24	0·21	..	..	..	0·21
Tutbury	9137	9140	2·7	25·6	11·3	102	0·98	..	0·32	0·21	0·10	0·10	..	..	..	0·21	0·43	0·54	1·42	0·32	0·10	0·10	..	0·43
Uttoxeter	8128	8196	5·9	23·7	13·5	118	0·12	..	..	..	..	..	..	0·12	..	..	0·48	0·73	1·70	0·85	..	..	0·61	..
Walsall	10290	10411	1·1	35·4	10·5	92	0·76	..	..	0·09	0·09	0·19	..	0·19	..	0·19	0·57	0·76	0·96	0·38	0·09	0·09	..	0·86
Wolstanton ..	36970	37494	0·2	38·4	15·1	134	1·12	..	0·34	0·05	0·05	0·18	..	0·16	..	0·32	0·61	0·53	1·76	1·38	0·08	0·02	0·13	0·56
Totals and Averages	230416	232706	2·5	31·3	14·4	119	0·93	0·00	0·22	0·07	0·11	0·20	..	0·10	..	0·20	0·83	0·65	1·22	1·00	0·05	0·06	0·17	0·60

RURAL—continued.

District.	Registered Births.	Deaths from all causes.	Deaths from all causes at subjoined ages.						Deaths from subjoined causes.																										
			Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.	Fevers.			Epidemic Influenza.	Diarrhœa.	Enteritis.	Puerperal Fever.	Erysipelas.	Other Septic Diseases.	Phthisis.	Other Tubercular Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.	Pleurisy.	Other Diseases of Respirat'y Organs	Alcoholism. Cirrhosis of Liver.	Venereal Diseases	Premature Birth.	Diseases & Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other Causes.
															Typhus.	Enteric.	Other Continued.																				
Stafford	285	139	25	12	7	5	32	58	..	1	..	1	8	..	..	1	..	..	..	1	1	..	..	7	1	9	7	15	..	..	..	..	6	1	18	5	..	57
Stoke-on-Trent	168	63	18	6	5	3	19	12	1	2	..	..	7	..	..	1	..	..	..	1	..	1	..	4	1	1	4	5	..	..	..	..	2	..	8	3	..	22
Stone	207	115	20	6	2	5	37	45	..	..	1	3	..	..	..	2	..	3	..	2	..	..	..	6	1	8	5	5	..	2	..	1	3	1	16	3	3	50
Tamworth Staffs. portion	140	56	12	2	2	4	13	23	..	..	2	..	1	..	..	..	..	..	2	2	1	..	..	3	2	5	6	1	..	..	..	..	1	..	6	3	..	21
Tutbury	234	104	24	15	3	3	30	29	..	3	2	1	1	..	..	..	..	..	2	3	..	..	..	4	..	5	13	3	1	1	..	..	4	..	14	4	1	42
Uttoxeter	195	111	23	8	2	4	28	46	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	4	..	6	14	7	..	..	5	..	..	1	8	5	4	55
Walsall	369	110	34	8	5	5	31	27	..	..	1	1	2	..	..	2	..	3	2	3	1	..	..	6	6	8	10	4	1	1	..	..	9	1	5	3	..	41
Wolstanton ..	1440	568	193	54	18	24	163	116	..	13	2	2	7	..	..	6	..	2	12	12	1	3	..	23	22	20	66	52	3	1	5	..	21	5	61	10	5	214
Totals....	7305	3355	876	267	122	156	930	1004	1	52	18	27	47	4	..	25	..	23	48	71	5	7	9	194	96	152	284	235	13	15	41	2	141	34	350	135	37	1289

Table showing Result of the Working of the Compulsory Notification of Infectious Diseases Act.

NOTE.—Cases of Measles and Whooping Cough are only given when these are included in the diseases compulsorily notified. Small-pox, Scarlet Fever, Diphtheria, and Fevers alone are included in the percentage calculation of hospital cases.

Hospitals exist in those districts against which an asterisk is placed.

URBAN.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
AMBLECOTE.*	Cases	Under 5	..	3	..	..	..	.	..	..	..	..	1		
		5 & upwards	..	6	..	..	..	1							
3,158.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	4	
8/8.		5 & upwards													
Nil.	Cases treated in hospital	Under 5													
		5 & upwards													
AUDLEY.	Cases	Under 5	..	10	3										
		5 & upwards	..	31	6	..	..	2	..	..	..	..	13		
13,700.	Deaths	Under 5	..	1	1		..	..	..	..	..	..	..	1	
11/10.		5 & upwards	..	1	..		..	..	..	..	..	..	1		
Nil.	Cases treated in hospital	Under 5													
		5 & upwards													
BIDDULPH.*	Cases	Under 5	..	..	..	..	..	2							
		5 & upwards	..	..	1	...	..	9	..	..	..	..	1		
6,367.	Deaths	Under 5	..	..	1		..	..	..	..	..	..	..	7	2
5/1.		5 & upwards	..	..	..		..	1							
83·3.	Cases treated in hospital	Under 5	..	..	..	..	..	10							
		5 & upwards													

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
BILSTON.*	Cases	Under 5	..	16	2	7	..	..	..	..	..	..	1		
		5 & upwards	..	40	6	2	..	12	..	..	..	..	38		
24,100.	Deaths	Under 5	..	4	6		..	..	..	..	..	..	2	20	5
12/10.		5 & upwards	..	1	1		..	2							
56·5.	Cases treated in hospital	Under 5 / 5 & upwards	..	41	..	..	..	2							
BRIERLEY HILL.*	Cases	Under 5	..	25	1	1									
		5 & upwards	..	9	..	..	..	3	..	..	1	..	7		
12,228.	Deaths	Under 5	..	1	..	..	..	..	..	..	..	..	..	9	1
9/7		5 & upwards	..	1	..	..	..	1	..	..	..	..	..	1	
2·6.	Cases treated in hospital	Under 5 / 5 & upwards	..	..	..	..	..	1							
BROWNHILLS.*	Cases	Under 5 / 5 & upwards	..	47	..	..	..	2	..	..	3	..	2		
15,828.	Deaths	Under 5	..	1	1		..	..	..	..	..	..	..	4	6
8/6		5 & upwards	..	..											
Nil.	Cases treated in hospital	Under 5 / 5 & upwards													
BURSLEM.*	Cases	Under 5	..	59	71	..	..	2	..	..	..	..	2		
		5 & upwards	..	59	115	..	..	29	..	..	6	..	19		
39,606.	Deaths	Under 5	..	4	21		..	..	..	..	..	..	..	26	6
£1 2s. 10d.		5 & upwards	..	3	12		..	6	..	..	3	..	3	1	1
24·7.	Cases treated in hospital	Under 5 / 5 & upwards	..	30	46	..	..	7							

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
CANNOCK.* 24,000. £1 16s. 9d. 0·3.	Cases	Under 5	..	134	..	1	..	3	..	..	..	..	3		
		5 & upwards	1	163	10	..	..	8	..	..	6	..	24		
	Deaths	Under 5	..	6	1		..	..	..	..	..	..	..	17	3
		5 & upwards	..	5	1		..	4	..	..	3	..	..		
	Cases treated in hospital	Under 5													
		5 & upwards	1												
COSELEY. 22,218. 18/3. Nil.	Cases	Under 5	..	19	12	4	..	7	..	..	..	..	3		
		5 & upwards	..	26	20	1	..	40	..	..	4	..	26		
	Deaths	Under 5	..	..	7		..	1	..	..	..	..	..	14	3
		5 & upwards	..	1	2		..	4	..	..	3	..	1	1	
	Cases treated in hospital	Under 5													
		5 & upwards													
DARLASTON.* 15,469. £1 4s. 3d. Nil.	Cases	Under 5	..	48	..	4									
		5 & upwards	..	64	3	..	..	20	..	..	..	..	11		
	Deaths	Under 5	..	4	3		..	..	..	..	..	..	..	6	6
		5 & upwards	..	2	..		..	5	..	..	..	..	..	..	1
	Cases treated in hospital	Under 5													
		5 & upwards													
FENTON.* 24,000. 18/4. 43·3.	Cases	Under 5	..	29	19	1	..	.	..	..	..	..	1		
		5 & upwards	..	53	42	..	..	16	..	..	3	..	12		
	Deaths	Under 5	..	1	6	..	..	..	..	..	..	..	..	..	5
		5 & upwards	..	..	2	..	..	2							
	Cases treated in hospital	Under 5	..	39	30										
		5 & upwards													

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
HANDSWORTH.*	Cases	Under 5	..	91	12	1	..	1	..	..	..	..	3		
		5 & upwards	..	270	43	2	..	23	..	..	3	..	17		
56,141.	Deaths	Under 5	..	5	4		..	..	..	..	..	..	2	10	16
£1 0s. 9d.		5 & upwards	..	3	4		..	6	..	..	1	..	1		
37·0.	Cases treated in hospital	Under 5 / 5 & upwards	..	163											
HEATH TOWN.*	Cases	Under 5	..	14	1										
		5 & upwards	..	32	..	2	..	2	..	..	1	..	11		
9,650.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	1	7
16/3.		5 & upwards	..	..	..	..	..	..	..	..	1				
4·0.	Cases treated in hospital	Under 5 / 5 & upwards	..	..	..	..	..	2							
KIDSGROVE.	Cases	Under 5 / 5 & upwards	..	6	13	1	..	2	..	..	..	..	7		
4,640.	Deaths	Under 5	..	..	1		..	..	..	..	..	..	..	2	
15/7.		5 & upwards	..	..	1										
Nil.	Cases treated in hospital	Under 5 / 5 & upwards													
LEEK.*	Cases	Under 5	..	2	4	2	..	..	..	..	..	..	1		
		5 & upwards	1	1	..	1	..	8	..	..	2	..	10		
15,663.	Deaths	Under 5	..	..	1		..	..	..	..	..	..	..	21	2
5/1.		5 & upwards	..	..	1		..	2							
81·2.	Cases treated in hospital	Under 5 / 5 & upwards	..	3	2	1	..	6							

URBAN—continued

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
LICHFIELD.*	Cases	Under 5	..	12	2	..	..	..	..	..	..	..	1		
7,902.		5 & upwards	2	28	7	..	..	5	..	..	..	..	10		
£1 1s. 2d.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	1	7	
46·4.		5 & upwards													
	Cases treated in hospital	Under 5 / 5 & upwards	2	18	6										
LONGTON.*	Cases	Under 5	..	68	35	3	..	..	..	..	..	..	2		
36,120.		5 & upwards	1	118	87	..	..	27	1	..	5	..	14		
£1 4s. 11d.	Deaths	Under 5	..	5	16		..	..	..	..	..	..	..	..	11
23·4.		5 & upwards	..	..	6		..	6	1	..	2	..	1		
	Cases treated in hospital	Under 5 / 5 & upwards	1	45	33										
NEWCASTLE.*	Cases	Under 5 / 5 & upwards	..	28	6	..	..	18	..	..	6	..	17		
20,064.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	6	2
9/4		5 & upwards	..	..	..	..	..	1	..	..	7				
32·6	Cases treated in hospital	Under 5 / 5 & upwards	..	15	..	..	..	2							
PERRY BARR.*	Cases	Under 5	..	17	1	..	..	..	..	..	..	..	1		
2,360.		5 & upwards	..	16	4	..	..	..	..	..	..	..	3		
£2 4s. 6d.	Deaths	Under 5	..	1	..	..	..	..	..	..	..	..	..	..	1
34·2.		5 & upwards	..	2											
	Cases treated in hospital	Under 5 / 5 & upwards	..	13											

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
QUARRY BANK.*	Cases	Under 5	..	10	1	..	..	..	..	..	..	..	3		
		5 & upwards	..	7	1	..	..	4	..	..	2	..	12		
6,935.	Deaths	Under 5	..	1	1	..	..	..	..	..	..	..	1	8	5
14/5.		5 & upwards	..												
4·3.	Cases treated in hospital	Under 5 / 5 & upwards	..	..	..	..	..	1							
ROWLEY REGIS.*	Cases	Under 5	..	85	8	6	..	..	..	..	..	..	8		
		5 & upwards	..	88	10	1	..	18	..	..	7	..	54		
35,400.	Deaths	Under 5	..	6	4		..	..	..	..	..	..	1	20	2
£1 0s. 1d.		5 & upwards	..	1	2		..	4	..	..	3	..	2	1	
0·4.	Cases treated in hospital	Under 5													
		5 & upwards	..	..	..	..	..	1							
RUGELEY.	Cases	Under 5	..	9	..	1									
		5 & upwards	..	12	2	..	..	..	..	..	..	..	2		
4,450.	Deaths	Under 5	..	1	1		..	..	..	..	..	..	..	1	
14/7.		5 & upwards													
Nil.	Cases treated in hospital	Under 5													
		5 & upwards													
SEDGLEY.*	Cases	Under 5 / 5 & upwards	4	28	19	6	..	17	..	..	..	..	26		
15,960.	Deaths	Under 5	..	..	2		..	1	..	..	..	..	..	8	3
15/8.		5 & upwards	..	2	..		..	2	..	..	..	..	1		
5·4.	Cases treated in hospital	Under 5 / 5 & upwards	4												

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
SHORT HEATH.	Cases	Under 5	..	12	2										
3,585.		5 & upwards	..	20	4	..	..	3	..	..	2	..	4		
£1 14s. 2d.	Deaths	Under 5	..	1											
Nil.		5 & upwards	..	1											
	Cases treated in hospital	Under 5													
		5 & upwards													
SMALLTHORNE.	Cases	Under 5	..	3											
6,555.		5 & upwards	..	7	..	..	..	2	..	..	..	..	3		
5/8.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	5	1
Nil.		5 & upwards													
	Cases treated in hospital	Under 5													
		5 & upwards													
SMETHWICK.*	Cases	Under 5	..	211	10	..	..	1	..	..	..	..	7		
55,700.		5 & upwards	1	378	44	..	..	46	..	..	2	..	35		
£1 13s. 0d.	Deaths	Under 5	..	14	6		..	..	..	..	..	..	..	15	12
0·1.		5 & upwards	..	6	1		..	13	..	..	1	..	3	4	1
	Cases treated in hospital	Under 5													
		5 & upwards	1												
STAFFORD.*	Cases	Under 5	..	23	33										
21,117.		5 & upwards	1	70	89	..	..	5	..	..	2	..	32		
£1 10s. 2d.	Deaths	Under 5	..	2	6		..	..	..	..	..	..	..	3	1
33·4.		5 & upwards	..	2	10		..	2	..	..	1	..	2		
	Cases treated in hospital	Under 5	..	73	1										
		5 & upwards													

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
STOKE-ON-TRENT.*	Cases	Under 5	..	16	25	1									
		5 & upwards	3	41	41	..	..	33	..	..	6	..	18		
31,374.	Deaths	Under 5	..	1	5		..	..	..	..	..	..	..	5	8
14/8.		5 & upwards	..	1	3		..	2	..	..	2				
64·1.	Cases treated in hospital	Under 5 / 5 & upwards	3	44	39	..	..	16							
STONE.*	Cases	Under 5 / 5 & upwards	..	11	6	..	..	2	..	..	..	..	2		
5,680.	Deaths	Under 5	..	..	1	..	..	..	..	..	..	..	..	..	1
9/3		5 & upwards	..	..	..	..	..	2							
42·1.	Cases treated in hospital	Under 5 / 5 & upwards	..	8											
TAMWORTH.*	Cases	Under 5	..	24	4	..	..	..	..	..	..	..	1		
7,353.		5 & upwards	..	50	2	..	..	..	..	..	..	..	3		
£1 8s. 6d.	Deaths	Under 5 / 5 & upwards	..	2	1	..	..	..	..	..	..	..	..	..	2
87·5.	Cases treated in hospital	Under 5 / 5 & upwards	..	70											
TETTENHALL.*	Cases	Under 5	..	21	3										
5,337.		5 & upwards	..	36	10	..	..	..	..	..	..	..	8		
£1 16s. 6d.	Deaths	Under 5 / 5 & upwards	..	1	..	..	..	..	..	..	..	..	..	..	2
57·1.	Cases treated in hospital	Under 5 / 5 & upwards	..	40											

URBAN—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
TIPTON.*	Cases	Under 5	..	418	20	5	..	48	..	..	..	..	43		
		5 & upwards													
31,000.	Deaths	Under 5	..	23	..	..	..	..	..	..	..	..	1	2	17
£2 3s. 0d.		5 & upwards	..	5	..	..		9							
21·6.	Cases treated in hospital	Under 5	..	89	1	..	..	15							
		5 & upwards													
TUNSTALL.*	Cases	Under 5	..	10	22	3	..	..	..	..	..	..	2		
		5 & upwards	..	12	38	..	..	16	..	..	1	..	12		
19,962.	Deaths	Under 5	..	..	18		..	..	..	..	..	..	1	12	3
14/6.		5 & upwards	..	..	4		..	4	1	..	2				
39·7.	Cases treated in hospital	Under 5	..	11	20	..	..	8							
		5 & upwards													
UTTOXETER.	Cases	Under 5	..	..	2										
		5 & upwards	..	1	3	..	..	1	..	..	..	..	1		
5,168.	Deaths	Under 5													
3/10.		5 & upwards	..	..	..	..	..	1							
Nil.	Cases treated in hospital	Under 5													
		5 & upwards													
WEDNESBURY.*	Cases	Under 5	..	272	27	21	..	39	..	..	1	..	56		
		5 & upwards													
26,700.	Deaths	Under 5	..	12	2		..	..	..	..	..	..	1	13	11
£1 18s. 11d.		5 & upwards	..	1	..		..	5	..	..	2	..	..	1	
Nil.	Cases treated in hospital	Under 5													
		5 & upwards													

URBAN—continued

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
WEDNESFIELD.*	Cases	Under 5	..	7	1	..	..	3							
		5 & upwards	..												
5,024.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	1
		5 & upwards	..	..	..	..	..	1							
5/5.	Cases treated in hospital	Under 5													
		5 & upwards													
Nil.															
WILLENHALL.*	Cases	Under 5	..	55	7	..	..	..	..	..	..	..	3		
		5 & upwards	..	80	4	..	..	13	..	..	1	..	31		
18,600.	Deaths	Under 5	..	2	4	..	..	..	..	..	..	..	..	1	6
		5 & upwards	..	2	1	..	..	5	..	..	2				
£1 6s. 1d.	Cases treated in hospital	Under 5													
		5 & upwards													
Nil.															

RURAL.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
BLORE HEATH.†	Cases	Under 5	..	3											
2,133.		5 & upwards	..	13	1	..	..	6	..	..	1				
£1 8s. 1d.	Deaths	Under 5													
13·0.		5 & upwards													
	Cases treated in hospital	Under 5													
		5 & upwards	..	..	..	..	..	3							
CANNOCK.*	Cases	Under 5	..	54	1	1	..	1	..	..	..	..	2		
18,125.		5 & upwards	..	110	5	1	..	11	..	..	..	..	12		
£1 7s. 3d.	Deaths	Under 5	..	3	3	..	..	..	..	..	..	..	..	2	1
7·1.		5 & upwards	..	..	2	..	..	2							
	Cases treated in hospital	Under 5	..	9	1	..	..	3							
		5 & upwards													
CHEADLE.	Cases	Under 5	4	66	48	..	..	23	..	..	3	..	7		
24,657.		5 & upwards													
15/3.	Deaths	Under 5	..	..	..		..	..	..	..	..	..	..	4	3
2·1.		5 & upwards	..	1	4		..	4							
	Cases treated in hospital	Under 5	3												
		5 & upwards													
ECCLESHALL.*	Cases	Under 5	..	6	3	..	..	1							
5,624.		5 & upwards	..	1											
4/10.	Deaths	Under 5													
45·4.		5 & upwards	..	..	..	..	..	1							
	Cases treated in hospital	Under 5	..	4	1										
		5 & upwards													

† Tent available.

RURAL—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
GNOSALL.	Cases	Under 5	..	18	1										
		5 & upwards	..	47	15										
4,700.	Deaths	Under 5	..	..	1										
		5 & upwards	..	..	4	..	..	..	..	..	..	..	..	1	
£2 3s. 1d.	Cases treated in hospital	Under 5													
Nil.		5 & upwards													
KINGSWINFORD.*	Cases	Under 5	..	7											
		5 & upwards	..	23	3	..	..	16	..	..	..	..	10		
20,332.	Deaths	Under 5	..	1	..	..	..	..	..	..	..	..	..	9	4
		5 & upwards	..	..	..	..	..	1	..	..	..	..	1	1	
7/4.	Cases treated in hospital	Under 5	..	10	..	..	..	11							
42·8.		5 & upwards													
LEEK.*	Cases	Under 5	..	..	1										
		5 & upwards	..	9	12	..	..	5	..	..	..	..	6		
13,868.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	1	
		5 & upwards	..	..	2	..	..	3	..	..	..	..	1		
5/11.	Cases treated in hospital	Under 5	..	3											
11·1.		5 & upwards													
LICHFIELD.*	Cases	Under 5	..	44	4										
		5 & upwards	..	90	14	..	..	1	..	..	2	..	10		
26,787.	Deaths	Under 5	..	1	2		..	..	..	..	..	..	..	14	7
		5 & upwards	..	3	1		..	1	..	..	1	..	..	1	
15/4.	Cases treated in hospital	Under 5	..	28	3										
20·2.		5 & upwards													

RURAL—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
MAYFIELD.	Cases	Under 5	..	..	1										
4,150.		5 & upwards	..	3	1	..	..	..	..	..	..	..	3		
4/9.	Deaths	Under 5	..	..	..	..	..	..	..	..	..	..	..	..	1
Nil.		5 & upwards													
	Cases treated in hospital	Under 5													
		5 & upwards													
NEWCASTLE.	Cases	Under 5	..	9	..	..	..	..	..	..	..	..	1		
6,594.		5 & upwards	..	23	7	..	..	..	..	..	2	..	7		
18/7.	Deaths	Under 5	..	1	..	..	..	..	..	..	..	..	..	..	1
Nil.		5 & upwards		..	1										
	Cases treated in hospital	Under 5													
		5 & upwards													
SEISDON.*	Cases	Under 5	..	5	2										
12,894.		5 & upwards	..	9	6	..	..	3	..	..	1	..	5		
6/-	Deaths	Under 5	..	..	1	..	..	..	..	..	..	..	..	..	2
40·0.		5 & upwards													
	Cases treated in hospital	Under 5	..	10											
		5 & upwards													
STAFFORD.*	Cases	Under 5	..	22	44	..	..	9	..	..	1	..	10		
10,550.		5 & upwards													
£1 0s. 4d.	Deaths	Under 5	..	..	6	..	..	..	..	..	..	..	..	1	1
34·6.		5 & upwards	..	..	2	..	..	1	..	..	1	..	..		
	Cases treated in hospital	Under 5	..	14	12										
		5 & upwards													

RURAL—continued.

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
STOKE-ON-TRENT.*	Cases	Under 5	..	..	3										
		5 & upwards	1	..	21	..	..	4	..	..	1	..	4		
4,808.	Deaths	Under 5	..	..	3	..	..	..	..	..	..	..	..	1	
		5 & upwards	1	..	4	..	..	1	..	..	..	..	1	1	
17/8.	Cases treated in hospital	Under 5	..	..	3										
		5 & upwards													
10·3.															
STONE.*	Cases	Under 5	..	16	5	..	..	8	..	..	1	..	6		
		5 & upwards													
8,436.	Deaths	Under 5	..	1	..	..	..	..	..	..	..	..	..	..	3
		5 & upwards													
10/8.	Cases treated in hospital	Under 5	..	7	1										
		5 & upwards													
27·5.															
TAMWORTH.*	Cases	Under 5	..	8	3										
		5 & upwards	1	26	1	..	..	..	..	..	1	..	2		
4,807.	Deaths	Under 5	..	..	1										
		5 & upwards	..	2	..	..	..	..	..	..	1				
£1 1s. 10d.	Cases treated in hospital	Under 5													
		5 & upwards	1	30											
79·4.															
TUTBURY.	Cases	Under 5	..	6											
		5 & upwards	..	9	4	..	..	1	..	..	..	..	2		
9,140.	Deaths	Under 5	..	2	1	..	..	..	..	..	..	..	..	3	1
		5 & upwards	..												
6/-	Cases treated in hospital	Under 5													
		5 & upwards	..	3											
15·0.															

District, Population, Cost of Notification per 1000 of Population, Percentage of cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria.	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
UTTOXETER.	Cases	Under 5	..	1	1										
		5 & upwards	..	13	3	..	..	..	..	..	1	..	11		
8,196.	Deaths	Under 5													
		5 & upwards	..	..	..	..	..	1	..	..	..	..	1		
9/2.	Cases treated in hospital	Under 5													
Nil.		5 & upwards													
WALSALL.	Cases	Under 5	..	12	3	..	..	1	..	..	..	..	3		
		5 & upwards	1	22	3	..	..	5	..	..	1	..	3		
10,411.	Deaths	Under 5	..	..	2	..	..	..	..	..	..	..	..	..	1
		5 & upwards	..	..	..	..	..	2	..	..	1				
12/11.	Cases treated in hospital	Under 5	..												
2·1.		5 & upwards	1												
WOLSTANTON.*	Cases	Under 5	..	13	18	..	..	..	..	..	..	..	1		
		5 & upwards	1	22	32	..	..	34	1	..	5	..	30		
37,494.	Deaths	Under 5	..	1	5	..	..	..	..	..	..	..	..	12	2
		5 & upwards	..	1	2	..	..	6	..	..	1	..	3	1	
10/5.	Cases treated in hospital	Under 5	1	10	4	..	..	12							
22·3.		5 & upwards													

Summary of Sanitary Inspectors' Work.

URBAN.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & Water.					Precautions against infectious disease.					
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Trays.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Amblecote. 3,158.	Inspections & observations made	6	..	3	..	..	..	3	2	2	..	33	4	23	16	..	..	3	5	5	..	1	17	123											
	Formal notices by authority	6	..	3	..	..	..	3	2	2	..	33	4	23	16	..	..	3	5	5	..	1	17	123											
	Nuisances abated after notice	6	..	3	..	..	..	3	2	2	..	30	4	23	16	..	..	3	5	5	..	1	15	118	..	..	..	4	3	..	11					
Audley. 13,700.	Inspections & observations made	Suggested form of Inspector's Return not adopted.																																	
	Formal notices by authority																																		
	Nuisances abated after notice																																		
Biddulph. 6,367.	Inspections & observations made	89	51	12	..	..	100		10	3	..	67	3	..	35			18	29	1	..	1	..	419												
	Formal notices by authority	9	7	2	..	..	..		..	..	..	7	..	..	..			..	..	..	..	1	..	26												
	Nuisances abated after notice	9	7	2	..	..	..		..	..	..	7	..	..	..			..	..	..	..	1	..	26	..	..	..	..	..	4	6					
Bilston. 24,100.	Inspections & observations made	37	23	2	13	96	49	37	54	92	49	16796	25	2	21	..	10	..	1	5	..	..	348	17660											
	Formal notices by authority	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13											
	Nuisances abated after notice	37	23	2	13	..	..	..	..	..	..	..	..	2	..	..	10	..	1	5	..	..	..	95	..	..	..	..	..	..	41					
Brierley Hill 12,228.	Inspections & observations made	90	54	38	49	..	9	60	40	24	72	1120	7	28	36			30	28	1	1	1	92	1789												
	Formal notices by authority	38	10	10	26	..	2	15	9	3	25	112	3	6	36			30	20	1	1	1	24	372												
	Nuisances abated after notice	38	10	10	26	..	2	13	9	3	25	112	3	6	36			30	18	1	..	..	24	366	..	..	..	13	13	7	Yes					

URBAN—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & water.					Precautions against infectious disease.						
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Brownhills. 15,828.	Inspections & observations made	..	..	..	..	..	..	..	..	..	48	..	..	..	..	..	..	..	..	..	..	..	..	†											
	Formal notices by authority	9	1	4	10	..	..	..	..	..	2	74	5	..	10	..	35	12	1	2	..	..	8	173											
	Nuisances abated after notice	9	1	4	10	..	..	..	..	..	2	70	5	..	10	..	35	12	1	2	..	..	8	169	..	..	..	19	13	20	20					
Burslem. 39,606.	Inspections & observations made	96	48	10	13	127	100	95	80	396	329	4249	25	302	14	42	192	51	85	13	2	20	11	6380											
	Formal notices by authority	96	48	10	13	7	1	2	4	4	33	350	25	302	14	42	192	51	5	13	2	20	11	1245											
	Nuisances abated after notice	96	48	10	13	6	1	2	4	4	33	350	25	302	14	42	192	51	5	13	2	20	11	1244	6	..	..	..	..	498	242	..	..	..	4	4
Cannock. 24,000.	Inspections & observations made	..	2	3	..	13	..	..	12	150	111	26	9	..	..	..	48	..	7	..	..	..	..	381											
	Formal notices by authority	..	..	..	3	2	..	..	..	..	..	10	1	..	..	..	11	..	..	..	..	..	..	27											
	Nuisances abated after notice	..	2	3	3	2	..	..	..	1	..	10	10	..	..	..	51	..	7	..	..	..	..	89	..	..	..	..	..	28	201	1				
Coseley. 22,218.	Inspections & observations made Formal notices by authority Nuisances abated after notice	Inspector's Return not received.																																
Darlaston. 15,469.	Inspections & observations made	..	..	12	1	..	36	45	40	52	113	3147	6	..	2	..	168	..	1	..	..	..	57	3680											
	Formal notices by authority	..	..	12	1	..	..	..	..	..	..	..	6	..	2	..	168	..	1	..	..	..	57	247											
	Nuisances abated after notice	..	..	12	1	..	..	..	..	..	..	..	6	..	2	..	168	..	1	..	..	..	57	247	..	..	..	..	..	..	44					

† Inspections made periodically.

URBAN—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & Water.					Precautions against infectious disease.					
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Fenton. 24,000.	Inspections & observations made	6	75	4	..	..	80	50	64	57	..	315	..	185	134	42	64	3	3	4	..	24	570	1680											
	Formal notices by authority	2	25	2	..	..	..	2	..	..	..	75	..	51	25	15	18	1	2	2	..	1	113	334											
	Nuisances abated after notice	2	24	2	..	..	..	2	..	..	..	71	..	50	25	15	18	1	..	2	..	1	113	326	..	..	..	..	..	155	143					
Handsworth 56,141.	Inspections & observations made	299	458	98	32	..	201	92	121	149	..	2032	315	957	1071	163	1015	53	..	137	..	23	169	7385											
	Formal notices by authority	29	24	5	4	..	..	..	..	..	..	96	4	19	13	7	30	2	..	6	..	4	10	253											
	Nuisances abated after notice	70	180	25	5	..	..	6	7	6	..	349	88	317	250	38	270	11	..	40	..	4	51	1717	..	..	..	..	..	293	399					
Heath Town 9,650.	Inspections & observations made	300				..	20	21	30	24	..	138	16	..	80			..	13	..	..	..	..	642											
	Formal notices by authority	43				..	..	2	2	3	..	27	16	..	30			..	6	..	..	..	..	129											
	Nuisances abated after notice	40				..	..	2	2	3	..	14	16	..	28			..	6	..	..	..	..	111	..	..	..	..	..	..	37					
Kidsgrove. 4,640.	Inspections & observations made	Inspector's Return not received.																																	
	Formal notices by authority																																		
	Nuisances abated after notice																																		
Leek. 15,663.	Inspections & observations made	6	11	2	..	204	8	86	46	18	41	79	14	36	10	10	29	..	..	..	1	3	8	612											
	Formal notices by authority	6	11	2	..	..	..	1	1	1	3	79	14	36	10	10	29	..	..	..	1	3	8	215											
	Nuisances abated after notice	6	11	2	..	..	..	1	1	1	3	76	14	36	10	10	27	..	..	..	1	3	8	210	12lb fish	..	..	..	..	784	36	6				

URBAN—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & water.					Precautions against infectious disease.					
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Lichfield. 7,902.	Inspections & observations made	..	..	3	1	..	6	10	..	11	..	186	23	40	80	14	190	3	5	7	..	..	63	642											
	Formal notices by authority	..	..	3	1	..	..	2	..	2	..	149	18	40	79	14	173	3	5	7	..	..	63	559											
	Nuisances abated after notice	..	..	3	..	..	..	2	..	2	..	139	23	38	74	14	173	..	5	7	..	..	63	543	..	..	..	1	..	..	23	5				
Longton. 36,120.	Inspections & observations made	10	14	2	4	26	20	10	80	35	..	315	1	43	14	..	74	6	..	..	1	1	70	726											
	Formal notices by authority	..	9	..	4	..	..	..	..	..	..	19	..	4	..	..	4	..	..	..	1	..	30	71											
	Nuisances abated after notice	10	14	2	4	..	..	..	..	..	..	315	1	43	14	..	74	6	..	..	1	1	70	555	..	..	..	..	..	297	247					
Newcastle. 20,064.	Inspections & observations made	319	31	2	50	73	90	40	72	138	20	1074	20	..	760	5	..	..	..	20	..	..	2	2716											
	Formal notices by authority	319	15	1	12	4	1	5	3	12	1	83	10	..	200	1	..	..	..	10	..	..	2	679											
	Nuisances abated after notice	319	16	1	10	4	1	5	3	12	1	79	10	..	190	1	..	..	..	10	..	..	2	664	3	53	1	1	1	30	53	15				
Perry Barr. 2,360.	Inspections & observations made	..	1	161	..	..	3	2	..	..	..	194	1	..	..	..	14	..	..	..	..	..	..	376											
	Formal notices by authority	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1											
	Nuisances abated after notice	..	1	2	..	..	..	2	..	..	..	35	1	..	..	..	14	..	..	..	..	..	..	55	..	..	..	..	..	14	14					
Quarry Bank 6,935.	Inspections & observations made	75	64	43	30	..	30	42	20	22	..	1400	52	28	80	48	65	54	40	..	24	29	58	2204											
	Formal notices by authority	29	26	12	13	..	3	2	..	..	..	..	35	9	60	30	..	8	9	..	3	..	27	266											
	Nuisances abated after notice	29	24	12	8	..	3	2	..	..	..	..	35	9	60	30	..	8	9	..	3	..	27	259	..	..	..	3	3	25	25					

URBAN—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & Water.					Precautions against infectious disease.						
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Rowley Regis 35,400.	Inspections & observations made	172	..	9	5	..	86	86	106	79	113	21710	2	1278	301	2	526	3	130	5	..	..	..	24613											
	Formal notices by authority	42	..	9	5	..	..	1	..	..	..	..	2	70	..	2	..	3	25	5	..	..	..	173											
	Nuisances abated after notice	42	..	9	5	..	..	1	..	..	..	..	2	70	.	2	..	3	25	5	..	..	..	173	..	..	..	1	1	521	237	1				
Rugeley. 4,450.	Inspections & observations made	1	1	2	..	8	..	3	14	28	38	21	..	2	4	..	31	..	..	..	1	1	6	161											
	Formal notices by authority	1	1	2	..	..	..	..	..	..	2	21	..	2	4	..	31	..	..	..	1	1	6	72											
	Nuisances abated after notice	1	1	2	..	..	..	..	..	..	2	21	..	2	4	..	31	..	..	..	1	1	6	72	..	..	..	..	..	..	16	1	1	1		
Sedgley. 15,960.	Inspections & observations made	37	26	8	22	..	..	73	36	57	..	395	52	..	164			..	25	27	..	..	23	945											
	Formal notices by authority	4	5	3	4	..	..	6	1	3	..	40	11	..	17			..	5	5	..	..	4	108											
	Nuisances abated after notice	15	12	3	3	..	..	10	7	7	..	98	19	..	41			..	7	5	..	..	13	240	..	..	..	..	..	..	Yes					
Short Heath. 3,585.	Inspections & observations made	816				..	12	8	8	12	..	789	..	..	9	..	46	..	92	..	..	..	102	1894											
	Formal notices by authority	..	7	11	..	..	..	..	1	..	..	13	..	..	..	..	7	8	2	..	..	..	3	52											
	Nuisances abated after notice	..	7	8	..	..	..	..	..	..	..	13	..	..	..	..	8	..	2	..	..	..	3	39	..	..	..	..	..	..	31					
Smallthorne 6,555.	Inspections & observations made	..	8	2	..	..	14	13	7	5	..	70	2	31	4	58	16	..	40	1	..	1	..	272											
	Formal notices by authority	..	8	..	..	..	..	..	..	..	..	60	..	..	4	58	8	..	..	1	..	1	..	140											
	Nuisances abated after notice	..	8	2	..	..	..	..	..	..	..	70	..	..	4	58	16	..	..	1	..	1	..	160	..	..	..	..	..	..	Yes					

URBAN—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & water.					Precautions against infectious disease.					
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Smethwick. 55,700.	Inspections & observations made	2	..	4	..	..	225*	60*	148*	56*	350	894	4	72	106	36	50	6	6	3	..	3	20	2045											
	Formal notices by authority	1	..	1	..	..	..	13	9	..	33	298	2	22	50	12	25	1	2	1	..	1	16	487											
	Nuisances abated after notice	1	..	1	..	..	..	11	9	..	33	251	2	22	43	8	21	1	2	1	..	1	16	423	..	..	..	3	1	483	487					
Stafford. † 21,117.	Inspections & observations made	109	408	6	15	65	..	10	78	231	..	46	16	67	449	..	268	..	15	8	..	15	55	7815§											
	Formal notices by authority	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	572												
	Nuisances abated after notice	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	536	2	..	..	..	..	87	185	3				
Stoke-on-Trent. 31,374.	Inspections & observations made	77	106	12	3	82	85		45	86	205	246	6	25	39	25	56	4	4	7	25	15	..	1153											
	Formal notices by authority	77	106	12	3	2	4		6	2	48	246	9	24	39	25	56	4	4	7	..	..	..	674											
	Nuisances abated after notice	56	91	12	3	2	4		6	2	46	173	6	24	37	22	55	3	4	7	..	..	..	553	4	..	..	1	1	35	122					
Stone. 5,680.	Inspections & observations made	18	18	15	..	10	Several.		32	28	62	14	18	..	58	..	22	14	4	2	..	..	..	315						Several.					
	Formal notices by authority	9	9	6	..	..	..		3	1	1	7	9	..	29	..	11	7	2	1	..	..	..	95											
	Nuisances abated after notice	9	9	6	..	..	..		3	1	1	7	9	..	17	..	11	6	2	1	..	..	..	82	..	..	..	2	2							
Tamworth. 7,353.	Inspections & observations made	Inspector's Return not received.																																	
	Formal notices by authority																																		
	Nuisances abated after notice																																		

* Verbal notice given on each inspection where necessary.

† Including Public Institutions.

§ Including 3462 drains tested, and inspections not specified.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & water.					Precautions against infectious disease.						
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Tettenhall. 5,357.	Inspections & observations made	28	10	..	..	..	28	26	30	24	..	40	24	4	..	..	126	18	3	..	..	..	54	415											
	Formal notices by authority	38		..	..	..	..	..	..	..	..	40	24	4	..	..	126	..	3	..	..	..	54	289											
	Nuisances abated after notice	38		..	..	..	..	..	..	..	..	40	24	4	..	..	126	..	3	..	..	..	54	289	..	..	..	3	3	..	42					
Tipton. 31,000.	Inspections & observations made	157	120	24	12	..	110	104	104	76	120	310	20	10	15	6	30	12	12	12	..	..	24	1196											
	Formal notices by authority	157	120	24	12	..	..	..	..	..	21	284	20	..	15	6	24	10	10	10	..	..	20	723											
	Nuisances abated after notice	130	100	20	10	..	..	..	..	..	21	200	15	10	15	6	20	10	10	10	..	..	20	587	..	..	..	..	..	25	25					
Tunstall. 19,962.	Inspections & observations made	663	659	4	..	*	74	48	30	144	89	371	9	489	..	78	..	..	14	..	1	2	..	2675											
	Formal notices by authority	289	285	4	..	..	..	..	..	..	3	..	9	..	..	..	..	..	..	..	..	2	..	592											
	Nuisances abated after notice	597	594	4	..	..	..	..	..	..	3	371	9	423	..	78	..	..	..	..	..	2	..	2081	..	..	..	..	..	..	27					
Uttoxeter. 5,168.	Inspections & observations made	20	28	25	7	270**	10	70	65	40	..	60	18	25	8	12	60	14	21	4	18	1	40	816											
	Formal notices by authority	8	1	2	1	2	..	..	1	..	..	3	1	2	2	1	5	1	1	1	..	1	1	34											
	Nuisances abated after notice	8	6	3	1	5	3	2	4	3	..	12	3	5	3	7	25	1	7	1	..	1	7	107	1	..	..	..	..	4	4					
Wednesbury 26,700.	Inspections & observations made	85	10	5	5	76	..	10	52	40	..	2858	9	80	116	..	8	5	10	9	1	..	28	3407											
	Formal notices by authority	21	8	5	5	2	..	1	2	2	..	84	9	17	57	..	5	5	3	9	1	..	28	264											
	Nuisances abated after notice	21	7	5	5	2	..	1	2	2	..	76	9	17	57	..	5	5	3	9	1	..	28	255	..	..	..	..	..	..	210					

* Inspected by Police.

** 200 of these Inspections made by Police.

URBAN—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.		Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & Water.				Precautions against infectious disease.				
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Wednesfield, 5,024.	Inspections & observations made	4	..	8	4	..	..	..	..	..	..	233	12	..	..	..	..	6	..	..	..	..	329	..	..	..	..	..	..	..	..	..	..
	Formal notices by authority	2	..	4	2	..	..	..	..	..	..	16	6	..	..	..	..	3	..	..	..	..	64	..	..	..	..	..	..	..	..	..	..
	Nuisances abated after notice.....	2	..	4	2	..	..	..	..	..	..	116	6	..	..	..	..	3	..	..	..	..	164	..	..	..	..	..	..	..	..	..	..
Willenhall, 18,600.	Inspections & observations made	900				..	100		76	60	..	1000	8	356	440		16	30	4	..	..	93	3083	..	..	..	..	..	..	..	..	..	..
	Formal notices by authority	..	2	3	17	..	..	..	..	..	..	14	..	11	..	41	..	..	..	..	..	4	92	..	..	..	..	..	..	..	..	..	..
	Nuisances abated after notice.....	..	2	3	16	..	..	..	..	..	..	9	..	11	..	16	..	..	..	..	..	3	60	..	..	..	..	1016	91	1	..	..	..

RURAL.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & Water.					Precautions against infectious disease.						
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Blore Heath. 2,133.	Inspections & observations made	14	11	..	..	..	..	..	..	..	..	10	3	..	..	1	..	6	4	..	..	..	2	51											
	Formal notices by authority	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..											
	Nuisances abated after notice	10	8	..	..	..	..	..	..	..	..	9	3	..	..	1	..	..	4	..	..	..	2	37	..	..	..	2	..	..	16	5†				
Cannock. 18,125.	Inspections & observations made	18	18	21	1	..	9	25	14	15	12	147	2	..	31	5	2	7	25	2	..	..	11	365											
	Formal notices by authority	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*											
	Nuisances abated after notice	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*	1	..	..	7	6	22	75	1				
Cheadle. 24,657.	Inspections & observations made	1	13	2	..	23	..	74	29	..	25	7214	2	..	..	10	30	9	2	2	..	..	..	7436											
	Formal notices by authority	..	2	..	..	..	..	..	..	..	1	13	2	..	..	10	30	..	2	2	..	..	..	62											
	Nuisances abated after notice	1	2	2	..	..	..	..	..	..	1	13	2	..	..	..	30	9	2	2	..	..	..	64	1	..	..	..	1	4	4	3				
Eccleshall. 5,624.	Inspections & observations made	1	1	4	..	2	56		8	7	..	30	50	..	27			2	13	..	..	..	..	201											
	Formal notices by authority	1	1	4	..	..	..		..	1	..	9	42	..	15			2	11	..	..	..	..	86											
	Nuisances abated after notice	1	1	3	..	..	..		..	1	..	7	36	..	12			1	9	..	..	..	..	71											
Gnosall. 4,700.	Inspections & observations made	..	..	..	..	..	5	5	..	2	26	..	..	2	24			12	..	..	..	..	..	76											
	Formal notices by authority	..	..	..	..	..	5	5	..	2	..	..	..	2	24			12	..	..	..	..	..	50											
	Nuisances abated after notice	..	..	..	..	..	5	5	..	2	..	..	..	2	17			12	..	..	..	..	..	43	..	..	..	..	..	..	80					

* In most cases there has been formal notice and abatement. † Inspected.

RURAL—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & water.					Precautions against infectious disease.					
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Kingswinford. 20,332.	Inspections & observations made	140	104	24	2	..	20	23	15	25	66	195	89	..	66	..	69	51	4	26	..	..	39	958											
	Formal notices by authority	10	4	4	2	..	..	3	..	3	4	35	..	..	14	..	18	45	..	..	..	..	6	148											
	Nuisances abated after notice	117	90	24	2	..	20	23	15	25	66	176	89	..	53	..	60	46	4	26	..	..	39	875	..	..	..	58	28	..	23					
Leek. 13,868.	Inspections & observations made	12	8	6	6	14	84		20	22	102	103	27	18	32	21	40	14	18	10	..	4	8	569											
	Formal notices by authority	8	6	5	4	2	14		..	5	10	42	5	14	24	18	29	8	12	5	..	2	2	215											
	Nuisances abated after notice	7	6	4	4	2	13		..	5	9	38	5	12	22	16	28	6	10	3	..	2	2	194	..	..	..	18	8	160	25	6				
Lichfield. 26,787.	Inspections & observations made	9	26	14	7	..	119		..	31	133	397	49	5	37	29	120	18	31	9	..	..	31	1065											
	Formal notices by authority	..	2	..	..	..	..		..	..	..	3	..	..	..	..	1	..	..	..	..	..	..	6											
	Nuisances abated after notice	9	25	14	7	..	40		..	10	17	395	49	5	34	26	112	18	31	9	..	..	22	823	..	..	..	..	..	118						
Mayfield. 4,150.	Inspections & observations made	20	2	..	1	..	12	79	1	..	..	14	16	..	20	7	..	50	6	..	..	..	..	228											
	Formal notices by authority	10	2	..	1	..	..	32	..	..	..	14	10	..	12	7	..	7	6	..	..	..	..	101											
	Nuisances abated after notice	20	2	..	1	..	..	26	..	..	..	13	16	..	20	7	..	7	4	..	..	..	..	116	..	..	..	..	..	..	4					
Newcastle. 6,594.	Inspections & observations made	483				..	20	44	5	4	..	300	3	..	241			150	50	..	1	..	..	1301											
	Formal notices by authority	49	91	1	2	..	2	11	..	1	..	57	3	..	33			38	16	..	1	..	..	305											
	Nuisances abated after notice	45	86	1	2	..	2	9	..	1	..	57	3	..	32			38	13	..	1	..	..	290	..	..	..	2	2	6	6	1				

RURAL—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.		Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & water.					Precautions against infectious disease.						
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.									Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Seisdon. 12,894.	Inspections & observations made	453				..	4	50	15	13	81	228	23	4	26	..	143	61	24	6	..	..	..	1101											
	Formal notices by authority	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	66											
	Nuisances abated after notice	34	39	9	..	..	..	2	..	..	..	228	23	4	26	..	143	61	24	6	..	..	..	569	..	..	..	17	8	..	25					
Stafford. 10,550.	Inspections & observations made	..	..	3	2	..	93		6	5	95	127	..	..	..			44	..		..	..	..	..	375											
	Formal notices by authority	..	..	3	2	..	1		..	..	3	..	..	..	..	9		6	..		..	..	..	..	24											
	Nuisances abated after notice	..	..	3	2	..	1		..	..	3	..	..	..	..	9		6	..		..	..	..	..	24	..	..	..	24	..	..	34				
Stoke-on-Trent. 4,808.	Inspections & observations made	Inspector's Return not received.																																	
	Formal notices by authority																																		
	Nuisances abated after notice																																		
Stone. 8,436.	Inspections & observations made	2	1	5	..	..	116		9	7	77	35	90	..	15			1	10		..	..	..	..	368											
	Formal notices by authority	2	1	5	..	..	..		..	1	9	12	75	..	8			1	8		..	..	..	..	122											
	Nuisances abated after notice	2	1	4	..	..	..		..	1	7	9	73	..	5			1	7		..	..	..	..	110	..	..	..	..	..	..	6				
Tamworth.* 4,807.	Inspections & observations made	28	13	3	2	..	55	131	22	12	14	119	9	..	128			176	41	9	..	..	..	..	790											
	Formal notices by authority	2	1	3	..	..	2	..	..	..	3	26	..	..	19			28	8	8	..	..	..	..	102											
	Nuisances abated after notice	2	1	2	..	..	2	..	..	..	2	24	..	..	18			5	8	8	..	..	..	.	74	..	..	..	45	40	10	39	2				

* Staffordshire portion.

RURAL—continued.

District and Population.		Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse & manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals improperly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Food supply & Water.					Precautions against infectious disease.						
		Foul conditions.	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No disconnection.	Other faults.								Seizures of unwholesome food.	Samples of food taken for analysis.	Samples of food found adulterated.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.
Tutbury. 9,137.	Inspections & observations made	3	587	2	2	..	..	97	10	6	..	611	103	32	94	11	82	1	20	2	..	..	14	1677											
	Formal notices by authority	1	64	2	2	..	..	..	8	6	..	28	36	..	40	11	61	1	4	2	..	..	..	266											
	Nuisances abated after notice	1	64	2	2	..	..	..	8	6	..	28	36	..	40	11	61	1	4	2	..	..	..	266	..	..	..	6	2	18	18					
Uttoxeter. 8,196.	Inspections & observations made	22	12	7	4	..	260		11	10	..	128	29	35	15	12	..	40	19	..	..	..	..	604											
	Formal notices by authority	12	10	7	4	..	2		..	2	..	19	9	4	9	7	..	32	10	..	..	..	..	127											
	Nuisances abated after notice	10	10	7	4	..	2		..	2	..	12	9	4	9	7	..	30	10	..	..	..	..	116	..	..	..	8	3	1	7	5				
Walsall. 10,411.	Inspections & observations made	34	40	21	2	..	38	63	10	16	42	450	12	13	28	2	30	7	11	..	..	..	24	843											
	Formal notices by authority	15	17	21	2	..	2	4	2	3	3	64	12	10	16	2	17	5	11	..	..	..	13	219											
	Nuisances abated after notice	39	28	21	2	..	2	4	2	3	3	74	12	10	24	2	30	5	11	..	..	..	17	289	..	..	..	6	5	1	38					
Wolstanton. 37,494.	Inspections & observations made	2	..	6	..	..	243		154	163	29	629	17	29	28	14	451	59	36	..	..	..	76	1936											
	Formal notices by authority	1	..	3	..	..	4		..	..	..	287	8	14	13	6	224	26	17	..	..	..	33	636											
	Nuisances abated after notice	1	..	3	..	..	4		..	..	..	287	8	14	13	6	224	26	17	..	..	..	33	636	..	..	..	..	..	71	71					