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Contributors

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Borough of Stoke-upon-Trent.

MEDICAL OFFICER'S
ANNUAL REPORT

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SAMUEL JOHNSON, M.D.



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Hartshill, Penkhull, and Oakhill, is mapped as Permian, now a universally acknowledged error on lithological and palæontological grounds. The local and surface Carboniferous beds consist of the succession of a sandstone with various beds of so-called marl with their coals underlying it. This sandstone bed forms the Hartshill and Penkhull ridge, and being porous absorbs rain water, but beneath it is a bed of thick clay, which being impervious to water causes the water to appear at the junction of the sandstone and clay beds as springs which are found along a definite line on both sides of the hill. On the Stoke side, Honeywall, Parkwell, and the springs at the top of Sheppard street, and at Oakhill, are the result of this formation.

The Carboniferous beds on the slope of the hill are often overlaid by a stiff clay with foreign or erratic rocks known as the Boulder clay. This clay is also impervious to water, and houses built on it are liable to be damp.

Down in the Valley of the Trent itself the Carboniferous beds are overlaid with the sands and gravels deposited by that river which has meandered from one side of the Valley to the other during the long course of years which have been occupied in its gradual excavation. These sands and gravels underlaid by beds impervious to water contains large quantities of water, and are therefore always damp and present difficulties when it is necessary to sink into them for engineering purposes. This water is much contaminated by natural surface drainage, and is useless for household purposes.

The area of the Borough is given as 1,720 acres, of which about one fourth are built upon. There is no land which can actually be called waste within the Borough; about three fourths of the total area consists of farmed land, some portions being covered with shraff from the manufactories, and a small portion used as tips for ashes, &c.

The Population according to the Censuses of

1871 was 15,144

1881 „ 19,261

1891 was 24,013

Giving in 1891 nearly fourteen persons per acre.

The excess of births over deaths from the date of last Census to the end of 1892 was 242, making by natural increase the population to that date 24,255. The excess of births over deaths for 1893 was 121, which brings by natural increase the population to 24,396. The excess of births over deaths for 1894 was 204, bringing by natural increase the population to 24,600.

These numbers are further increased by the immigration from neighbouring towns and rural districts, the actual increase, and, as the population increased from the Census of 1881 to that of 1891 by 4,752, I estimate the population to the end of 1894 to be close upon 26,000, this being at the rate of 15.1 persons per acre.

According to the information given by the Borough Surveyor, the number of houses in the Borough in 1881 was 3,731, in 1891 it was 4,590, in 1892 4,694, in 1893 4,755, in 1894 the number was increased by 78; 79 were erected, and one in Welch street closed; leaving the number of houses to the end of 1894, 4,833.

The number of houses with less than 5 rooms was given in 1893 as 1914; the number of houses with only 2 rooms about 40.

Taking the average number of persons per house as five it would give a population of 24,165, shewing some overcrowding to which attention has been paid, and in many instances the nuisances abated.

There are no cellar dwellings in the Borough.

The density of the population is much greater in some districts than others, for as before stated much land and many spaces are not built upon

The number of births registered during the past year was 811, 409 males and 402 females. The births occurred in two localities viz :—

Stoke Borough—Males 391, Females 383, total 774.

Stoke Workhouse—Males 18, Females 19, total 37.

Giving a birth-rate of 29·7 for the Borough, and 1·4 for the Workhouse. Ten of the births in the Workhouse belong to Stoke, so the actual birth-rate for the Borough was 30·1

Of the total births 19 males and 28 females were illegitimate, giving a percentage of 5·7. In 1892 the percentage was 6·5, and in 1893 5·6.

In 1891 the births were 831, in 1892 816, and in 1893 they were 874. These figures shew a decrease of births for 1894 :—

Gross Birth rate for 1890	...	30·3	
" " " " 1891	...	34·6	
" " " " 1892	...	32·3	
" " " " 1893	...	34·4	nett 33·3
" " " " 1894	...	31·1	" 30·1

These are about the usual birth-rates for towns of the size of Stoke.

In 33 large English towns the average birth-rate for 1894 was 30·7, and in 1893 31·9.

The mortality returns of the Registrars shew that the total number of deaths registered during 1894 was 607, comprising 342 males and 265 females.

These numbers are subject to considerable reduction on account of some of the deaths occurring in the two public Institutions situate in the Borough, but coming from other localities, therefore cannot be included in Stoke proper.

These figures give a death-rate of 23·3, but deducting the number of deaths (197) which did not belong to the Borough, the nett number of deaths belonging to Stoke becomes 410, and the death-rate 15·7.

In 1891 the total deaths were 704, comprising 408 males and 296 females. The nett deaths were 398, and the death-rates 29·3 and 16·5.

In 1892 the total deaths were 624 ; 438 males and 286 females

The nett deaths were 422, and the death-rates 24.7 and 16.7

In 1893 the total number of deaths was 720; comprising 410 males and 310 females. The nett deaths were 482, and the death-rates 28.4 and 19.

In 1894 the deaths occurring in the three localities were as follows :

LOCALITIES	MALES	FEMALES	TOTAL
Stoke Borough...	204	177	381
Stoke Workhouse	77	57	134
N.S. Infirmary ...	61	31	92
Totals	342	265	607

The deaths certified were as follows :

	MALES	FEMALES	TOTAL
	333	259	592
The deaths uncertified were :	9	6	15

Deaths not belonging to the Borough :

	MALES	FEMALES	TOTAL
	117	80	197

Inquests on deaths belonging to Stoke ... 23

„ „ not belonging to Stoke ... 10

Deaths from violence belonging to Stoke ... 13

„ „ not belonging to Stoke 13

The death-rate in 33 large English towns for 1894 was 15.8; in 1893 21.6.

The deaths classified according to age were as follows :

LOCALITIES	Under 1 year	1 year and under 5	5 years and under 15	15 years and under 25	25 years and under 65	65 years and upwards	TOTAL
Stoke Borough	141 ...	49 ...	13 ...	13 ...	109 ...	55 ...	380
N.S. Infirmary	1 ...	3 ...	6 ...	20 ...	56 ...	7 ...	93
Stoke Workhouse	5 ...	5 ...	1 ...	7 ...	66 ...	50 ...	134
	147 ...	57 ...	20 ...	40 ...	231 ...	112 ...	607

Once more I have to draw your attention to the Infant mortality : it is a debated point whether the employment of mothers in Factories is as much the cause of the high mortality as was formerly thought.

No doubt but that congenital debility, improper feeding and neglect contribute largely to the result. Every year this excessive Infantile mortality occupies a prominent place in Annual Reports, and particular attention was paid to it at the Meetings of the Sanitary Institutes in Liverpool last year, when the subject was ably and exhaustively discussed. In Stoke in 1894, 204 children died under five years, about one-third of the total number of deaths of the combined localities, and one half of the number of deaths in Stoke proper.

The deaths from 25 to 65 years (the most valuable period of life) is partly dependent on the work of the district, which is conducive to the development of phthisis, and diseases of the respiratory organs

I am pleased to be able to report that many important measures have been adopted during the year for the improvement of the general life of the potters. Over-alls have been adopted for all workers in the dust and glaze, and mess-rooms have been provided for those employed in the lead departments. These workers are also obliged to wash before partaking of their food, and for this purpose lavatories have been provided, with all necessary conveniences. For all the potters respirators have been advised, but the use of them remains as yet optional. It is also recommended that the workers do not return home in their over-alls. Throughout the works ventilation has been greatly improved. I have seen many cases in my practice in which the ffitting of lead has proved beneficial.

The Infantile mortality in 1894 was equal to 242.1 per thousand born, and 33.4 per cent. of the nett total deaths of the Borough.

In 1892, 166.6 per thousand born, died.

In 1893, 159 per thousand born, died.

The deaths from Zymotic diseases were as follows :

	Anthrax	Scarlet Fever	Diphtheria	Membranous Croup	Enteric Fever	Erysipelas	Measles	Puerperal	Whooping Cough	Diarrhoea	TOTAL
Stoke Borough	6	...	6	...	1	...	3	...	1	...	29
Stoke Workhouse	...	...	...	...	1	...	...	...	3	...	10
N. S. Infirmary	1	...	...	1	...	6	...	...	...	...	8
TOTALS	...	1	...	6	...	7	...	1	...	10	47

Giving a Zymotic death-rate for the combined localities of 1.8. Excluding the deaths from Zymotic diseases of persons not belonging to the Borough, which were 15, the Zymotic death-rate was only 1.2.

In 1893 these rates were 3.7 and 2.7 ; a very satisfactory improvement.

The average Zymotic death-rate for 33 large English towns was 1.9.

The deaths from Constitutional diseases in the combined districts were :

Rheumatic Fever	Cancer	Tabes Mesenterica	Meningitis	Phthisis	Scrofula	Diabetes	Others	TOTAL
2	...	26	...	21	...	10	...	54
2	...	3	...	2	...	3	...	4
...	122

In 1892 these diseases caused 150 deaths.

„ 1893 „ „ 157 „

In 1891 Phthisis caused 41 deaths.

„ 1892 „ „ 66 „

„ 1893 „ „ 61 „

Fifty-one cases of these diseases *did not* belong to the Borough.

Diseases of the Respiratory Organs, such as Bronchitis, Pneu-

monia and Pleurisy, caused 94 deaths, and were: Stoke, 68; Workhouse, 21; N. S. Infirmary, 5.

In 1891 these diseases caused 121 deaths.

„ 1892 „ „ 103 „

„ 1893 „ „ 98 „

Seventeen cases *did not* belong to the Borough.

Heart Diseases caused 62 deaths.

In 1891 these diseases caused 53 deaths.

„ 1892 „ „ 50 „

„ 1893 „ „ 65 „

Twenty-nine *did not* belong to the Borough.

There were notified under the Infectious Diseases Notification Act the following:

	Scarlet Fever	Diphtheria	Membranous Croup	Enteric Fever	Continued Fever	Puerperal Fever	Erysipelas	Anthrax	TOTAL
January	... 21 ...	1 ...	...	... 13 ...	2 ...	...	2 ...	1 ...	40
February	... 9 ...	2 ...	...	... 7 ...	...	...	3 ...	...	21
March	... 28 ...	...	...	... 4 ...	...	...	3 ...	...	35
April	... 5 ...	1 ...	...	... 3 ...	...	1 ...	4 ...	...	14
May	... 16 ...	...	...	... 3 ...	...	...	4 ...	...	23
June	... 21 ...	2 ...	...	... 13 ...	...	...	3 ...	...	39
July	... 25 ...	7 ...	...	... 8 ...	1 ...	...	2 ...	...	43
August	... 14 ...	5 ...	1 ...	... 3 ...	3 ...	...	4 ...	...	30
September	... 30 ...	3 ...	...	... 8 ...	...	...	3 ...	...	44
October	... 35 ...	3 ...	...	... 6 ...	...	1 ...	4 ...	...	49
November	... 30 ...	1 ...	...	... 15 ...	...	1 ...	2 ...	...	49
December	... 17 ...	4 ...	...	... 5 ...	...	1 ...	3 ...	...	30
TOTAL	... 251 ...	29 ...	1 ...	88 ...	6 ...	4 ...	37 ...	1 ...	417
1892	... 133 ...	18 ...	2 ...	46 ...	1 ...	...	49 ...	...	249
1893	... 301 ...	32 ...	1 ...	177 ...	4 ...	4 ...	2 ...	...	521

One case of breach of the Act came under notice, but the

Sanitary Committee decided to take no proceedings.

It is gratifying to record that no case of Small Pox was notified, although the disease was very prevalent in South Staffordshire and Birmingham. Scarlet Fever of a mild type prevailed during the year, becoming almost an epidemic in some districts during the latter months, and might have done so, had not advantage been taken of the isolation provided by the Contagious Diseases Hospital. The deaths from the disease were few, 6 out of 251 cases.

Eighty-three patients were sent to the Hospital, and only one died, in June. Three were from the N. S. Infirmary.

In 1893 the same number were sent, and two died.

The number of houses infected during 1894 was 286.

„ „ „ 1893 „ 346.

These figures exclude Measles and Whooping Cough.

Diphtheria cases were numerous, and caused 7 deaths. The disease is often caused by damp houses and soil. School attendance is a very potent factor in the spread of diphtheria, as also is infected milk.

Cases of Enteric Fever were notified in each month : 34 were imported, of which 6 died ; of the cases occurring in Stoke proper, 4 died. Some cases were notified twice.

I am indebted to the medical men practising in the Borough for keeping me informed of cases of infectious diseases not scheduled coming under their observation.

Cases of Erysipelas were also numerous.

Of the 37 cases of erysipelas, only one died ; so though the disease was prevalent, it was by no means fatal.

Measles and Whooping Cough are not included in the Schedule of Diseases to be notified as compulsory.

Influenza prevailed in the early part of the year and caused much sickness, but less mortality than in previous years.

The cost of carrying out the Notification Act was £47 13s. 6d. In 1893 it was £62 2s. 6d.

The maintenance of the 83 patients sent to the Hospital averaged about £4 per head.

The Librarian has received notice from time to time of infected houses. He has been instructed not to send books to these houses; and any previously supplied have been sent to the Sanitary Office to be disinfected.

The subjoined is an abstract from the last two half-yearly reports of the Vaccination Officer :

Births Registered	Successfully Vaccinated	Insusceptible	Had Small Pox	Died	Postponed	Removals Certified	Removals Uncertified	Unaccounted for	TOTAL
756 ...	514 ...	2 ...	Nil ...	79 ...	10 ...	2 ...	23 ...	126 ...	756

SAMPLES PURCHASED AND ANALYSED IN THE BOROUGH OF STOKE-UPON-TRENT.

YEAR 1894.

SAMPLES OF	NO.	
Pepper	6	All genuine
Demerara Sugar	10	„
Bread ...	4	„
Flour ...	3	„
Oatmeal ...	4	„
Cheese ...	8	„
Ale ...	4	„
Whiskey ...	3	„
Gin ...	3	„
Brandy ...	4	„
Coffee ...	6	„
Lard ...	3	„
Butter ...	42	„
Lump Ginger	6	„

Ground Ginger	16	One adulterated with 25 per cent. of spent or exhausted ginger. Fine 40/-
Milk	34	Two adulterated. One sample 33 per cent of its cream removed. Fine £10.
Total	156	One Sample 11 per cent of added water. Fine 40/- This milk was delivered at the Stoke-upon-Trent Union.

Special attention has again been given to Milk supplied to the North Staffordshire Infirmary and Stoke Union.

140 Visits have been made under the Margarine Act. No complaint.

E. W. HORTON KNIGHT,
Inspector.

E. W. T. JONES,
Analyst.

Most of the towns of North Staffordshire obtain their water supply from the Staffordshire Potteries Waterworks Company. Stoke chiefly relies upon the Hatton Water, though some is received from Wall Grange and the Meir.

The supply on the whole has been abundant, but during the severe weather the water of the Penkhull District and higher parts of the town has been intermittent.

On March 15th, 1894, samples of Hatton Water were sent to Dr. Bostock Hill for analysis. By the table it will be seen that the water is free from organic pollution of all kinds, and to be particularly well adapted for drinking and domestic purposes.

Total solid impurity	Free Ammonia	Organic Ammonia	Nitrogen as Nitrates and Nitretes	Total combined Nitrogen	Oxygen absorbed in four hours	Hardness		Chlorine	Remarks
						Temporary	Permanent		
22.0	0.001	000.	Traces	1	1	0	0	1.1	Fairly clear

Dr. Tidy and Dr. Frankland, who have also analysed the waters, declare them to be free from all pollution, brilliant, palatable,

free from detrimental hardness, and very suitable for domestic purposes ; and they both declare it "one of the purest waters examined."

There are four drinking fountains in the Borough : the water supply is not constant. Church Street, Liverpool Road, Minton's, and Boothen Bridge are their situations.

Thirty-five houses are still dependent on local wells for their supply.

The supply to the Baths has been abundant and clear, free from moss and sediment.

With regard to any influences likely to affect the health of the Borough, by constant personal observation I kept myself well informed, and have, with the Sanitary Inspector, visited all places where nuisances were known to exist and any infectious disease presented itself ; all nuisances were removed and infectious places thoroughly disinfected.

All insanitary dwellings discovered by, or reported to me, have been attended to ; and over-crowding, ventilation, drainage, paving, spouting, ash-pits, &c., have had attention.

The Market and Provision shops situated in the Borough have been regularly visited during the year. The supply of food was found ample for the customers, and the quality fairly good.

On inquiring as to the offensive trades carried on in the Borough, I found the processes were carried on with the minimum of offence, and no complaints were made by any neighbours as to any nuisance.

In January the man who was found in possession of bad meat and brawn in Stoke Old Road, was sentenced by the magistrate to three months hard labour. A case of dates was condemned and destroyed ; and during the year several lots of dried fish were condemned and destroyed, also on one occasion a few rabbits, unfit for food, were similarly treated.

A special inspection of all the Milk-shops, Dairies and Cow-sheds (which in my opinion should be properly registered) has been maintained. On the whole the quality of the milk was satisfactory and the supply good. In cases of any contagious disease, the milk, &c. was carefully kept away from any source of infection. The return made by the Inspector, Mr. Knight, of samples taken and analyses made during 1894, will show all to have been genuine excepting four. As far as I know the number of Cow-sheds are 18, Milk-sellers, 80, and dairies 15.

The Bake-houses of the town have been systematically visited by H. M. Inspector of Factories and myself. They have all been lime-washed twice during the year, and are well ventilated, and found not to be in proximity to sleeping apartments, though in some cases stables are found near. All suggestions of improvement have been willingly carried out by the owners. There are 50 bake-houses in the Borough.

The Slaughter-houses, 18 in number, all licensed, have been inspected. They were all in satisfactory condition, and no nuisances caused by them have been complained of. Nevertheless I greatly advise the establishment of a Public abattoir.

The Slaughter-houses are situated as follows :—

Copeland Street (1)	Penkhull (1)
Liverpool Road (3)	High Street (1)
Peel Street (1)	Spring Street (1)
Red Lion Yard (1)	Cross Street (1)
South Terrace (1)	St. Ann Street (1)
London Road (3)	Trent Vale (1)
Stubb's (1)	William Street (1)

It is a strange but gratifying fact that in a town the size of Stoke there is but one Common Lodging House. This is in a thoroughly sanitary condition, and over-crowding is carefully watched over. One case of illness occurred in it during the year, and it has been lime-washed according to the requirements of the Local Government Board.

The Police Station still affords unsuitable accommodation for the Superintendent and Constables. I am informed that the County Authorities contemplate the erection of a new Station in a central position, although many sanitary improvements were made to the premises in 1893, at considerable expense.

No provision is available within the Borough for the disinfection of infected bedding and clothing. It would be a great advantage to the town if the Sanitary Authority considered the advisability of having a disinfecting chamber. The only one in any way connected with Stoke is at Bucknall, and that is distant, and not in accordance with the ideas of modern sanitation.

The Smoke nuisance is a very grave matter in Stoke, Basford, Harpfields, and Trent Vale, and a certain amount of it might be avoided by more careful firing: it certainly should be reduced to its minimum. From the consumption of three tons of coal about 30 lbs. of sulphurous acid and 100 lbs. of soot would be emitted to the atmosphere. These are destructive to vegetation, injurious to health, and conducive to the production of fogs. A dried sample of soot was found to consist of:

Carbonaceous matter	...	75.6
Mineral matter	... ..	24.4

The prevention of smoke by Mechanical Stokers is to a great extent delusive, not only on account of the sulphurous acid, but also of the incombustible portion of the soot not being dealt with, the whole of the sulphurous acid is brought down to the lower strata of the atmosphere.

One of the leading inhabitants of the town commenting on my last year's report said: "You are right about the necessity for the reduction of smoke. It is practicable and ought to be done. Look at the London Potteries, they make very little smoke."

Our brick yards are the worst offenders, their chimneys being so low. Of course we must have smoke, but care about it is incumbent on the manufacturers.

No complaints have been received of the Steam Trams passing

through the town ; yet disagreeable fumes are to be perceived at times.

The Hide and Skin Markets have been frequently visited, and nothing has been found to complain of. During the summer the skins and hides have been removed daily, salt and lime were freely used. Disinfectants have been freely used and no complaints have been made.

The fumes from the bones, calcined in the Borough, are very obnoxious.

Mr Poulson, the recently-appointed Inspector, visited the Sewage Farm six times during 1894. He found the pumps at work four times. He considered that the effluent, though passing over 14 acres of land, was sufficiently impregnated with sewage to pollute the river. Each time he went, when the pumps were not working, he found the water going over Mr Foster's meadow, and finding its direct way into the river. He also states that a great amount of refuse has had to be contended with. In addition to the amount disposed of at the farm, between 5 and 7 hundred loads of night-soil and mud have had to be sent away. The refuse from fish-shops has been buried. The crops grown on the farm have proved satisfactory considering the quantity of sewage, and the water to be dealt with on the land.

About sixty acres in the township of Fenton are set aside for sewage purposes, four of which are laid out on the downward filtration plan.

I am of opinion that the Corporation have adopted a right course in appointing a Farm Bailiff at the Sewage Farm instead of letting it to a tenant. The Sewage scheme was adopted in 1881.

There are seven urinals within the Borough and an additional one is contemplated in London Road near Boothen Bridge. They have been inspected, were found thoroughly flushed with water, but out of repair.

Night soil and manure deposits have caused numerous com-

plaints. If they were more abundantly mixed with soil or ashes they would prove less of a nuisance. The districts from which most complaints were made were Basford, Hartshill, Penk-hull, Oakhill, Brisley Hill, Boothten, and Sideway.

The number of Privies and Cesspools in the Borough, 4,380 ; Ashpits, 3,719 ; W.C.'s, with cisterns, 278 ; Washout Closets, 221 ; Duckets, 30 ; Automatic Flushers, 3 for public streets, 6 for schools, and 1 for 16 houses in Cotton's Hole.

The following letter has been received :—

Local Government Board,
Whitehall, S.W.

17th October, 1893.

Sir,

I am directed by the Local Government Board to state that they have had under their consideration the annual report for 1893 of the Medical Officer of Health to the Stoke-upon-Trent Urban Sanitary Authority, a copy of which has been forwarded to the Board pursuant to their General Order, and I am to state that the Board hope to find in the next annual report that progress has been made in the abolition of the numerous privies, middens and cess-pools in the District, reported as giving rise to nuisances, and that a more cleanly system has been substituted.

I am, Sir,

Your obedient Servant,

ALFRED D. ADRIAN,
Assistant Secretary.

I most strongly recommend the Committee to insist upon the introduction of the Water Carriage System in all new and altered property. It would not only be the most important sanitary measure which could be adopted in the Borough, but would ultimately be a great saving to the ratepayers.

A cesspool of any kind is a dangerous barbarism.

Two streams pass through the town of Stoke, viz. : the River Trent and its affluent, the Foulhay Brook. The Trent is con-

siderably augmented by surface drainage. Even in moderately rainy weather the sewage in the outlet sewers rises above the overflow level, consequently, continual pollution is certain.

The Canal is dirty and seems to be made by the poor (especially those living on the sides or near it) a general receptacle for refuse, both vegetable and animal. In August it was drained.

The Canal Boats passing through Stoke have many times been visited. They were generally found fairly clean, but over-crowded. The condition of the occupants was looked into. No disease of an infectious nature was found in them. One birth took place.

All pig-styes that have been inspected have been found suitable for the purpose for which they were erected ; however, it would be a great advantage if some of them were removed further from the dwellings of their owners.

The roads of the Borough are 20 miles in length, including 7 miles of main roads, and are kept in good condition. In spite of Dr. Barry's advice the back passages at Basford and Penkhull Allotments remain unpaved. During wet weather they are in a dreadful condition. From a sanitary point of view they should be paved with stone setts.

A great amount of harm has been prevented in the way of the spreading of contagious diseases, through the Contagious Disease Hospital at Bucknall. Eighty-three patients have been sent from the Borough. The hospital is specially useful in large families, where isolation is practically impossible, and contagion therefore certain.

For some time the erection of a mortuary in the town has been recommended, and the need of one has often been felt.

Petroleum is stored in the Shropshire Union Wharf, Copeland Street.

I shall be pleased when the new Bye-laws are revised and in force.

The following Acts were adopted during the year :—

- (1). Dwellings of the Working Class Amendment Act.
- (2). Prevention of Cruelty to Children Amendment Act.

Stoke Church Yard and Cemetery are full, and interments there almost discontinued.

In the Church Cemetery, twenty-four interments took place during the year. The burial of still-born children is not allowed.

In September, with your kind permission, I attended, as a delegate, the Sanitary Institute Congress at Liverpool. Many of the papers and discussions will be of great service to me in my official work.

On the first day Dr. Klein gave an address in which he dealt with the Etiology of Typhoid Fever; this was followed by a paper by Professor Roche, on the danger of the spread of Typhoid by the discharge into the sewers of the dejecta in an insufficiently disinfected condition.

The following day Dr. Reid, Medical Officer of Health for the county, introduced the subject of Infant Mortality. This subject was especially applicable to this district, where the deaths of Infants are so numerous. The children of mothers labouring in factories must necessarily be more or less neglected. Among other subjects dealt with that day were the Study of Industrial Disease by Dr. Arlidge, and the Theory and Practice of Disinfection by Heat, by Mr. Defries.

On the 28th the Congress sat at three Sections. River pollution and the Housing of the Working Classes were discussed. In the section of Sanitary Science a great subject of argument was the teaching of Hygiene in schools. A meeting consisting only of Medical Officers of Health was held in the afternoon, and the time was passed in the consideration of the Classification of Infectious Diseases, and the conditions justifying the condemnation of meat.

On the 29th, a lecture was delivered by Sir J. Crichton Browne, on the Prevention of Tuberculous Disease. He considered the best modes of restricting its ravages were, good ventilation, pure water, the boiling of all food intended for human

consumption, and plenty of light.

I have the honour to be, Gentlemen,

Your obedient Servant,

SAMUEL JOHNSON, M.D.,

Medical Officer of Health.

STOKE-UPON-TRENT,

MARCH 7th, 1895.

TO THE MAYOR AND TOWN COUNCIL.

GENTLEMEN,

In making this my Annual Report, I beg leave to give you the following information of work done in my department during the past year.

The nuisances dealt with are as under :—

Inspections and Observations made.			Formal Notice by Authority.		Nuisances abated after Notice.	
Foul conditions	...	86	...	86	...	86
Structural Defects	...	25	...	25	...	25
Overcrowding	...	6	...	6	...	6
Unfit for habitation	...	6	...	6	...	6
Lodging-houses	...	1	...	3	...	3
Dairies and Milkshops		59	...	Verbal	...	—
Cowsheds	...	61	...	„	...	—
Bakehouses	...	70	...	„	...	—
Slaughterhouses	...	100	...	„	...	—
Canal Boats	...	111	...	1	...	1
Ashpits and Privies	...	86	...	86	...	86
Deposits of Refuse & Manure	5		...	5	..	5
Water Closets	...	280	...	12	...	12
Defective Traps	...	32	...	32	...	32
Other Faults	...	50	...	50	...	50
Water Supply	...	18	...	18	...	18
Animals improperly kept		9	...	9	...	9
Smoke Nuisances	...	3	...	3	...	2
TOTALS		1008		342		341

Seizures of Unwholesome Food ... 3

Samples of Water taken for Analysis ... 1

„ „ Condemned as unfit for use 1

PRECAUTIONS AGAINST INFECTIOUS DISEASE.

Lots of Infected Bedding Stoved or Destroyed 1

Houses Disinfected after Infectious Disease 286

HOUSE REFUSE.—The number of Ashpits cleansed during the past twelve months, from 4th January, 1894, to 10th January, 1895, is as follows :—

12,180 Ashpits

7,276 Loads

As against 7,908 Ashpits ; and 6,626 Loads in 1894.

CESPOOLS.—The number of Cesspools cleaned during the past year from the 4th January, 1894, to 10th January, 1895, is as follows, viz :—

8,320 Cesspools

3,697 Tubs

As against 6,665 Cesspools ; and 3,095 Tubs in 1894.

WAGE ACCOUNT.—The Wage Account for the past year is as follows, viz :—

		1894 & 1895			1893 & 1894		
		£	s.	d.	£	s.	d.
Wages	...	710	9	6	968	17	4
Boat	...	209	17	4			
Horse hire	...	107	12	9			
		<hr/>					
		1,027	19	7			
Enginemen	...	7	0	0			
		<hr/>					
		£1,034	19	7	£968	17	4
		<hr/>			<hr/>		

CONTAGIOUS DISEASES (ANIMALS) ACT.—I am very pleased to be able to report that there has been no infectious disease in the Borough as to animals during the past year.

INFECTIOUS DISEASES.—I have removed to the Infectious Disease Hospital 83 persons suffering from contagious diseases, principally scarlet fever.

DISINFECTANTS.—I have disinfected all known premises where infectious disease has shown itself.

HIDE AND SKIN MARKET.—I have frequently inspected these premises during the year.

THE GENERAL MARKET.—I have inspected the market every week when it is opened for sale purposes.

LODGING HOUSE.—I have frequently visited these premises during the past year and seen that the premises were kept clean. I have removed one case of scarlet fever from these premises.

SLAUGHTER HOUSES.—18 in number have been frequently inspected during the past year and kept clean and frequently limewashed, with one exception I have had no complaints as to any of them during the past year.

THE BAKEHOUSES.—Have been also frequently inspected during the past year, and have all been limewashed periodically.

THE DAIRIES AND MILKSHOPS.—Have also been frequently inspected.

PUBLIC CONVEYANCES.—There are 39 Conveyances licensed for hire in the Borough.

I remain, Gentlemen,

Yours obediently,

E. W. HOWELL,

Cer. San. Inspector.

STOKE-ON-TRENT,

5TH JANUARY, 1895.

TO THE MAYOR AND TOWN COUNCIL.

Gentlemen,

As required by the Local Government Board, I beg to submit to you my Annual Report as to the Canal Boats Act.

1. The arrangements made for the Inspection of Boats, and the remuneration of the Inspector :—The remuneration paid is included in my salary.
2. The number of Boats inspected in 1893, and the condition of the boats and their occupants, as regards the matters dealt with in the Acts and regulations.

The number of Boats Inspected minutely would be about 111 during the past year.

The condition of the boats are much better than formerly, and the people much cleaner.

3. Any infringement of the Acts and Regulations with respect to (*a*) registration ; (*b*) notification of change of master ; (*c*) absence of certificate ; (*d*) marking ; (*e*) overcrowding ; (*f*) separation of the sexes ; (*g*) cleanliness and ventilation ; (*h*) painting ; (*i*) provision of water cask ; (*j*) removal of bilge water ; (*k*) notification of infectious disease ; (*l*) admittance of Inspector.
4. Legal proceedings taken in respect of any such infringement and penalties inflicted :—Proceedings taken in one case for using boat, the same not being registered, he was fined the costs.
5. Any other steps taken to secure compliance with the Acts and Regulations as regards such infringements :—Handbills, circulated among the boatpeople and wharves.
6. Cases of Infectious Disease dealt with and measures of isolation adopted :—No infectious disease dealt with.
7. Detention of boats for cleansing and disinfection.
8. The number of boats on the register is :—529.
9. The number registered in 1894, distinguishing the cases in which fresh registration has been rendered necessary by structural alteration in boats previously registered.

Boats re-registered ...	...	...	...	...	38
New Boats ...	...	...	...	...	7
					—
			Total	...	45

I remain, Gentlemen,

Yours obediently,

E. W. HOWELL,

Cer. San. Inspector.

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH. 1894.

URBAN SANITARY DISTRICT OF STOKE-UPON-TRENT.

(A) Deaths Registered during the year 1894, classified according to Diseases, Ages, and Localities; showing also the Population of such Localities and the Births therein during the year.

(B) New Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health during the year 1894, enumerating the Number of Houses Infected, the Total Number of Deaths, also the Number of Cases Treated and the Deaths that occurred in Infectious Hospitals.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as Separate Localities.	Population		Registered Births		Deaths from all causes at subjoined ages.										Mortality from selected causes, distinguishing deaths of Children under 5 years of age.																		Deaths from selected causes, distinguishing deaths of Children under 5 years of age, occurring in Infectious Hospitals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Census, 1891.	Estimated to be in force at end of 1894.	Males.	Females.	Total.	At all ages.										Females.																		Males.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
						Males.	Females.	Total.	Under 1 year.	1 year and under 5.	5 years and under 15.	15 years and under 25.	25 years and under 45.	45 years and upwards.	Scarlet fever.	Diphtheria.	Measles.	Whooping Cough.	Typhoid or Enteric.	Smallpox.	Erysipelas.	Cholera.	Relapsing.	Pneumonia.	All other Diseases.	Scarlet fever.	Diphtheria.	Measles.	Whooping Cough.	Typhoid.	Enteric.	Smallpox.	Erysipelas.	Cholera.	Relapsing.	Pneumonia.	All other Diseases.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
STOKE BOROUGH	89,744	2,465	301	373	774	804	177	381	145	49	13	13	109	55	Under 5 years and upwards.	—	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—</

"Notification of Infectious Diseases" is Compulsory in the District. Measles and Whooping Cough are not included among the Diseases notified. Area of District is 1,710 acres.

Signed, SAMUEL JOHNSON, M.D., Medical Officer of Health.



