

# REPORT

ON THE

# Health of the Borough

OF

KINGSTON - UPON - HULL,

For the Year 1882,

BY

JOHN W. MASON, M.B., C.M., M.R.C.S.E.,

*Medical Officer of Health for the Town and Port.*



HULL:

M. HARLAND AND SON, PRINTERS, MANOR STREET.

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MDCCCLXXXIV.



TOWN HALL, KINGSTON-UPON-HULL.

*To the Sanitary Committee.*

GENTLEMEN,


I have the honour to submit to you my Annual Report, for the year ending December 31st, 1882, comprising the Statistical Returns of the Deaths in the Borough, the measures adopted for the prevention of disease, and the work done in the Sanitary Department.

I am, Gentlemen,

Your obedient Servant,

JOHN W. MASON,

*Medical Officer of Health for  
the Town and Port.*



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# Borough of Kingston-upon-Hull.

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## REPORT 1882.

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### STATISTICS.

During the twelve months ending December 31st, 1882, there were registered in the Borough of Kingston-upon-Hull, according to the returns furnished by the Registrars, 5761 Births and 3705 Deaths. Of the Births, 3005 were males, and 2756 females. The birth-rate was equal to 36 per 1000 of a population of 158,814 at all ages, as estimated by the Registrar-General to the middle of the year.

The excess of Births over Deaths in 1882, representing the natural increase of the population, was 2056, against 2118 and 1976 in the years 1880 and 1881.

The annual death-rate from all causes for the year under notice, was equal to 23 per 1000. Of the Deaths, 1689 were males and 2016 females. The death-rate, according to the Registrar-General's returns, for the Urban population of England and Wales averaged 21.15 per 1000, and in twenty of the largest English towns, including London, it was 22.3 per 1000.

Table giving the annual birth-rate, death-rate, with the corresponding Zymotic death-rate, for the years 1870 to 1882 :—

Year.	Births.	Deaths.	Population.	Birth-rate per 1000.	Death-rate per 1000.	Zymotic-rate per 1000.
1870	4406	2851	119,500	36	23	5
1871	4473	2841	122,266	36	23	4
1872	4875	3266	125,210	38	26	6
1873	5153	3101	128,225	40	24	3
1874	5353	3340	131,315	40	25	5
1875	5436	3666	134,480	40	27	6
1876	5726	3131	137,630	41	22	3
1877	5822	3032	141,050	41	21	2
1878	6004	3471	144,450	41	24	4
1879	5885	3311	147,940	38	22	2
1880	5650	3532	151,500	37	23	4
1881	5634	3677	155,160	36	23	6
1882	5761	3705	158,814	36	23	4

TABULATED RETURN, SHEWING THE TOTAL NUMBER OF DEATHS FOR  
THE YEAR 1882, AT CERTAIN AGES.

DISTRICTS.	under 1 year.	1 year and under 5.	5 years and under 20.	20 years and under 40.	40 years and under 60.	60 years and under 80.	80 years and upwards.	TOTALS.
Drypool .....	133	121	70	57	49	68	4	502
Sutton.....	67	50	14	20	29	29	4	213
East Sculcoates.....	78	41	20	26	34	56	18	273
West Sculcoates ...	180	139	74	82	78	117	29	699
Humber .....	39	23	12	21	23	29	6	153
St. Mary .....	23	10	11	15	17	9	3	83
Myton .....	447	318	182	236	244	290	60	1777
Borough Total ...	967	702	383	457	474	598	124	3705

TABLE SHEWING THE BIRTH-RATE, DEATH-RATE, ZYMOTIC AND INFANTILE MORTALITY, AND THE DISTRICTS IN WHICH THEY HAVE OCCURRED, 1882.

DISTRICT.	Estimated Population.	Area in acres.	Persons to an acre.	Birth-rate per 1000.	Death-rate from all causes, per 1000.	Zymotic Death-rate per 1000.	Rate per 1000 of Deaths from all causes, under 1 year.	Rate per 1000 of Deaths from all causes, over 1 year and under 5 years.
Drypool .....	22,271	1561	14	39	22	6	6	5
Sutton.....	10,552	260	40	46	20	5	6	5
East Sculcootes.....	13,511	259	52	33	20	3	6	3
West Sculcoates ...	33,065	487	67	35	21	4	5	4
Humber .....	6,626	61	108	29	25	2	6	3
St .Mary.....	4,159	53	78	32	22	2	5	2
Myton .....	68,630	940	78	35	26	4	6	2
Borough Total ...	158,814	3621	43	36	23	4	6	4



# 1882.

## Deaths from all causes, and the Districts in which they have occurred.

Districts.	Old Age.	Develop- mental.	Debility.	Skin.	Childbirth.	Kidneys.	Stomach, &c.	Heart, &c.	Brain, &c.	Tubercular.	Uncertain.	Minor Zymotic.	SEVEN PRINCIPAL ZYMOTIC DISEASES.										Deaths not Certified.	Total.
	Old Age.	Premature Birth, Malforma- tion, Teething.	Debility, Atrophy, Marasmus.	Skin, Carbuncle, Eryemia.	Childbirth, Uterus.	Kidneys, Bladder, Diabetes.	Stomach, Liver, Peritonitis, Hernia, Throat, &c.	Heart, Hæmorrhage, Syncope, Aneurism.	Apoplexy, Convulsions, Paralysis, Spine, Neuralgia, &c.	Scrofula, Tubercula, Mesenterica, Phthisis, &c.	Dropsy, Cancer, Gangrene, Rheumatism, Abscess, Tumour.	Dysentery, Syphilis, Erysipelas, Aphtha, Rheumatic Fever, &c.	Fevers.	Diarrhoea.	Scarlatina.	Diphtheria.	SmallPox.	Measles.	Whooping Cough.	Phthisis.	Other Diseases of the Air Passages.	Inquest Accidents and Violence.		
Drypool .....	8	31	17	1	5	6	14	23	53	9	22	3	9	40	63	...	13	27	2	31	89	22	14	502
Sutton .....	9	8	15	...	4	6	4	9	25	1	5	4	3	16	15	...	...	13	1	10	45	5	15	213
East Sculcoates..	24	13	12	...	1	...	6	22	40	7	9	4	1	25	2	...	...	9	2	28	47	5	16	273
West Sculcoates.	28	29	38	1	1	8	33	37	101	17	30	4	7	65	44	2	...	10	9	69	138	11	17	699
Humber .....	7	6	11	...	1	1	7	13	27	4	6	1	2	5	5	...	...	...	...	9	35	3	10	153
St. Mary .....	3	1	6	...	1	2	5	8	17	2	2	4	1	...	4	...	1	1	...	9	14	2	5	88
Myton .....	58	39	118	2	9	33	70	112	302	46	48	18	37	115	130	6	2	23	16	131	300	75	87	1777
Totals .....	137	127	217	4	22	56	139	224	565	86	122	38	60	266	263	8	16	83	30	287	668	123	164	3705

## INFANTILE MORTALITY.

The Infant mortality, measured by the proportion of deaths under 1 year of age, to births registered, was 166 per 1000. For the 28 most populous towns in England and Wales, the proportion of deaths under 1 year, to births registered in 1882, averaged 162 per 1000 births, in the 50 large town districts, it averaged 153 per 1000 births, in the whole of England and Wales, it was 141 per 1000 births.

### UNCERTIFIED CAUSES.

During the year 1882, 164 deaths were not certified, either by a registered medical practitioner, or by the coroner, being at the rate of 54 per 1000 of the total deaths.

### ZYMOTIC DISEASES.

This class of diseases has accounted for 764 deaths, equal to an annual rate mortality of 4 per 1000 persons living.

### SEVEN PRINCIPAL ZYMOTICS.

Seven hundred and twenty-six deaths have been recorded from the seven principal Zymotic diseases, a mortality at the rate of 4 per 1000 of the population, and distributed over the four quarters of the year as follows:—1st quarter, 172; 2nd quarter, 114; 3rd quarter, 322; and 4th quarter, 118 deaths respectively.

The death-rate from these diseases during the year 1882, in the 20 large provincial towns, averaged 3.59 per 1000 of their estimated population. The lowest Zymotic death-rates recorded were, 2.14 in Plymouth, 2.37 in Bristol, 2.46 in Norwich; while the highest were 4.43 in Nottingham and Portsmouth, 4.59 in Hull, and 5.75 in Sunderland. The high Zymotic death-rate in Hull, was due to fatal prevalence of Scarlatina, throughout the greater portion of the year.

The average number of deaths from the Seven Principal Zymotics for the past fifteen years was 656.

Immediately upon the receipt of information at the Health Department, either through the death returns, or otherwise, that infectious disease exists in any house, the premises are forthwith visited. The condition of the patient especially in relation to isolation is inquired into, and the attendance at school, from infected families, controlled. The sanitary arrangements of the dwelling are inspected. Bills containing instructions and disinfectants are distributed, and the drains in the immediate neighbourhood are flushed and disinfected. After the completion of the illness, or where insufficient isolation and removal to hospital has been considered necessary, the premises are disinfected by the Sanitary Authority, and all bedding, clothing, &c., removed for disinfection, free of charge, where necessary notices have been served, to place the premises in a sanitary condition.

Table showing the deaths from the seven principal Zymotic diseases for the years 1870 to 1882, both inclusive.

Year.	Seven Zymotic Diseases.	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Fevers.	Diarrhoea.
1870...	5.64	0.01	0.06	2.56	0.10	0.15	0.98	1.78
1871...	4.27	0.47	0.72	0.53	0.02	0.21	0.86	1.46
1872...	6.50	1.72	0.10	0.23	0.06	0.80	1.37	2.22
1873...	3.90	0.20	0.31	0.28	0.05	0.33	0.95	1.77
1874...	5.25	0.02	0.38	1.40	0.09	0.37	1.29	1.69
1875...	6.16	0.01	0.23	2.07	0.05	1.00	0.80	1.99
1876...	3.52	0.00	0.33	0.42	0.07	0.44	0.55	1.71
1877...	2.94	0.01	0.28	0.22	0.09	0.44	0.40	1.50
1878...	4.13	0.01	0.03	0.14	0.04	0.40	0.65	2.87
1879...	2.33	0.00	0.26	0.53	0.10	0.61	0.36	0.47
1880...	4.80	0.00	1.34	0.40	0.03	0.95	0.31	1.75
1881...	6.12	0.02	0.05	4.48	0.03	0.24	0.39	0.90
1882...	4.59	0.10	0.52	1.66	0.05	0.18	0.37	1.68

## SMALLPOX.

Sixteen deaths have been recorded from Smallpox, a mortality at the rate of 0.10 per 1000. Eleven deaths from Smallpox occurred in the Hospital of the Urban Sanitary Authority. The deaths from Smallpox were distributed over the four quarters of the year, as follows:— 1st quarter, 6; second quarter, 5; third quarter, 4; fourth quarter, 1 deaths respectively. The average number of deaths from Smallpox during the past fifteen years was 36.

This high average is due to the epidemics prevalent of Smallpox in 1868 and 1872, resulting in 160 and 209 deaths respectively.

In the early part of the year, the prevalency of Smallpox occupied the serious attention of the Sanitary Authority, and the energies of the Health Department were considerably taxed in stamping out the disease. The precautionary measures consisted in the immediate visitation of the sick, upon their becoming known to the Sanitary Officials; the inquiry into the causation of disease, and the isolation at home, or removal to Hospital. The re-vaccination of those who had been exposed to infection was strongly insisted upon, and the disinfection and purification of infected dwellings was thoroughly performed. Bills containing precautions were freely posted and distributed in the town, and the centres of contagion were systematically watched. Re-vaccination on the approach of adolescence is a necessary precaution against Smallpox, and it is interesting to note that in those families in which Smallpox occurred, and whose removal to Hospital was insisted upon, and who availed themselves of the protection ensured by re-vaccination, no spread of Smallpox was known to have taken place. It is important the public should understand when vaccina-

tion or re-vaccination will either prevent or modify Smallpox. As the incubative stage of Smallpox, that is to say, the period during which the disease does not ordinarily produce constitutional symptoms is about 12 days; it follows that "Suppose an unvaccinated person should inhale the germ of Smallpox on a Monday, if he be vaccinated as late as the following Wednesday, the vaccination will be in time to prevent Smallpox being developed; if it be put off until the Thursday, the Smallpox will appear, but be modified; but if it be delayed until Friday the vaccination will be of no use." If Smallpox occur in a house, all the unvaccinated, and those above eight years who have not been successfully re-vaccinated, should be vaccinated forthwith; for if too late to prevent the development of Smallpox, it may modify the attack. Although some days might have elapsed after the appearance of Smallpox in a house, it does not follow that all the inmates were infected the first day, or that they were infected at all.

### SCARLATINA.

During the year, 263 deaths from Scarlatina have been recorded, the average age being 6 years, and a mortality at the rate of 1.66 per 1000 per annum, of the estimated population. The average death-rate from Scarlatina for the 28 large towns, was 0.55 per 1000. Though the death-rate from Scarlatina in Hull exceeded that in any other town, it was considerably less than half the Scarlatina rate in 1881, viz., 4.5 per 1000.

The deaths from Scarlatina were distributed over the four quarters of the year, as follows, viz:—first quarter, 137; second quarter, 62; third quarter, 46; fourth quarter, 18 deaths, respectively.

The average number of deaths from Scarlatina during the past 15 years was 160.

The high mortality from Scarlatina in Hull formed the subject of a Government Inquiry, by Dr. Airy, in February, 1882.

Amongst the precautions adopted by the Sanitary Authority, in order to prevent the spread of Scarlatina, the School Board Authorities, the Managers and Superintendents of Sunday Schools were respectfully requested to close their respective Schools. The Board Schools, and many private Schools, were fumigated by the sanitary officials, before the reassembling of their scholars. After an investigation of numerous cases of Scarlatina, I have formed the opinion that the most common source of infection, and of which the Sanitary Authority are unable to deal, are mild cases of Scarlatina, which are unrecognised by parents, or those in charge of children, and which are consequently not attended by a medical man. The School Board Authorities favoured me with a list of absentees from school through illness, which assisted me in my investigations. I was requested to give certificates to the School Board, and other School Managers, of the existence of infectious diseases in all dwellings coming under my notice. Scarlatina being prevalent, my efforts were directed in isolating those cases without sufficient lodging and accomodation, and those coming to my knowledge in newly invaded parts of the town. There is no doubt from the beneficial results obtained by these efforts, that isolation promptly resorted to, is the best means of checking an outbreak of Scarlatina. Experience teaches us that Scarlatina is not infectious before the appearance of the rash, which is the distinctive symptom of the disease.

Measles is infectious for sometime before the rash appears; we, therefore, cannot expect isolation will be equally effectual. The importance of having information of the progress of infection furnished to the Sanitary Authority, otherwise than through the death returns of the respective Registrars, was considered in my report, 1881.

#### MEASLES.

Measles accounted for 83 deaths in 1882, as against 4 deaths in 1881, and 229 in 1880, in which year the disease showed itself in an epidemic form. The death-rate from Measles was equal to 0.52 per 1000 of the estimated population. The deaths from Measles were distributed over the four quarters of the year as follows, viz.—first quarter, 2; second quarter, 22; third quarter, 22; fourth quarter, 37 deaths, respectively. The average number of deaths from Measles during the past 15 years was 50. Measles being very prevalent in Myton in April, printed instructions were freely distributed in that district, and a careful watch was kept over the attendance at school of children from infected families.

#### DIPHTHERIA.

There have been 8 deaths from Diphtheria, as against 3 in 1881, an equal number being registered in 1880. The death-rate was equal to 0.05 per annum, and distributed over the four quarters of the year as follows:—first quarter, 0; second quarter, 0; third quarter, 2; fourth quarter, 6 deaths, respectively. The average number of deaths from Diphtheria during the past 15 years was 9.

#### WHOOPIING COUGH.

Whooping Cough occasioned 30 deaths, as against 37 in 1881, and 114 in 1880. The death-rate was equal to

0.18 per 1000. The deaths from Whooping Cough were distributed over the four quarters of the year as follows, viz.:—first quarter, 4; second quarter, 2; third quarter, 3; fourth quarter, 21 deaths, respectively. The average number of deaths from Whooping Cough during the past 15 years was 61.

### FEVER.

This term embraces the three forms—Typhus, Typhoid, and Simple Continued Fever—and caused 60 deaths, being at the rate of 0.37 per 1000 of the estimated population. The deaths from Fever were distributed over the four quarters of the year as follows, viz.:—first quarter, 13; second quarter, 15; third quarter, 17; fourth quarter, 15 deaths, respectively. The average rate of mortality in the 20 great towns was 0.36 per 1000. The average number of deaths from Fever in Hull during the past 15 years was 106.

### DIARRHŒA.

Diarrhœa occasioned 266 deaths, a mortality at the rate of 1.68 per 1000 per annum of the estimated population. The deaths from Diarrhœa were distributed over the four quarters of the year as follows:—first quarter, 10; second quarter, 8; third quarter, 227; fourth quarter, 21 deaths, respectively. The average number of deaths from Diarrhœa during the past 15 years was 232. The highest mortality from Diarrhœa in the 20 great towns occurred in Preston, Hull, and Leicester, where the death-rate was 2.48, 1.68 and 1.66 per 1000 respectively. The annual rate of mortality in the 20 great towns was 0.83 per 1000.



## INFANTILE DIARRHŒA.

Of 266 deaths from Diarrhœa, 208 were children, aged one year and under. The high mortality from Infantile Diarrhœa in this and other towns, has formed the subject of inquiry by Drs. Ballard and Power, of the Local Government Board. I have been engaged in collecting information on this subject for Dr. Ballard, and the results of my investigations will be communicated in a future report.

TABLE showing the Population and Deaths from Diarrhoea during the Third Quarters of the years 1870 to 1882, both inclusive; also the total Rainfall in inches and the Temperatures for the same period.

Years.	Population.	Deaths from Diarrhoea	JULY.					AUGUST.					SEPTEMBER.				
			Mean of Maximum.	Highest Reading.	Date.	Total Rainfall.	Mean of Maximum.	Highest Reading.	Date.	Total Rainfall.	Mean of Maximum.	Highest Reading.	Date.	Total Rainfall.	Mean of Maximum.	Highest Reading.	Date.
1870	119,500	180	72.8	82	8	0.78	69.1	79	6	1.80	63.9	69	2	1.44			
1871	122,226	130	69.4	80	17	3.93	71.8	84	12	1.17	61.9	74	1, 3, 4	4.84			
1872	125,210	218	73.1	86	21	4.84	67.9	77	26	2.24	62.8	76	4	3.80			
1873	128,225	161	73.2	84	21, 23	3.52	68.7	77	8	3.10	61.4	70	1	2.18			
1874	131,315	161	73.2	84	9	1.79	67.9	78	19	2.56	64.4	74	1	3.03			
1875	134,480	160	66.1	72	2	3.96	69.7	83	16	4.06	65.0	72	7	2.65			
1876	137,630	193	73.9	87	16	2.49	69.5	83	14	1.50	61.4	69	5, 22	3.12			
1877	141,050	145	69.2	75	10, 30, 31	2.61	66.1	74	5	4.90	59.1	67	11	4.46			
1878	144,450	336	71.3	86	20	0.88	69.1	73	2, 7, 8, 12, 18	5.31	63.7	73	6	2.81			
1879	147,940	18	65.3	78	28, 30	3.51	66.2	73	20	6.54	62.2	72	7	2.57			
1880	151,500	208	67.2	75	25	4.57	69.3	77	10	1.87	66.4	76	5	5.05			
1881	155,160	109	69.1	85	4	2.79	65.1	83	5	6.45	61.8	71	19	3.34			
1882	158,814	227	71.1	76	27, 28	1.98	69.2	79	11	3.18	65.0	72	8, 10	1.60			

## HOSPITAL.

During the year 187 patients have been admitted into the Hospital; of these 89 were suffering from Scarlatina, 84 from Smallpox, 13 from Measles, and 1 from Enteric Fever. Of 84 cases of Smallpox admitted, 73 were vaccinated and 11 unvaccinated. Of the vaccinated cases 15 had three good marks of vaccination, and had Smallpox in a modified form; 21 had three indifferent marks of vaccination, and 37 had two marks. Not one case had four marks of vaccination, and no re-vaccinated patient has been admitted suffering from Smallpox.

Twenty-three deaths have taken place, viz.:—12 from Scarlatina, and 11 from Smallpox (aged 8 months, 3, 4, 8, 9, 12, 16, 17, 38, 38, and 44 years respectively). Of the 11 deaths from Smallpox, 10 were unvaccinated. The death-rate was equal to 12 per 100 of the total cases admitted.

The deaths from Smallpox and Scarlatina that have occurred in the Fever Hospital, have been distributed over the respective districts from which they had been admitted, and are recorded in the Zymotic death-rates for those districts.

Early in January an outbreak of Smallpox occurred among the Scarlatina convalescents. The outbreak was traced to the water-closet accommodation, which was immediately re-constructed. The seven Scarlatina convalescents who contracted Smallpox had all been vaccinated. There was no death among them, and only one severe case, the other six had the disease only in a modified form.

The Hospital is totally inadequate for the town, and its present condition renders any alterations or additions undesirable. The Sanitary Authority have under their consideration the erection of a Fever Hospital to meet the requirements of the town.

The following table shows the number of cases admitted into the Hospital of the Urban Sanitary Authority, the nature of the illness, and the districts from which they had been removed.

Diseases.	Drypool.	Sutton.	East Sculcoates.	West Sculcoates.	Humber.	St. Mary.	Myton.	Port cases.	Total Number of admissions.
Smallpox .....	9	6	10	3	5	1	45	5	84
Scarlatina.....	14	18	6	6	4	5	34	2	89
Measles.....	...	1	...	...	1	...	2	9	13
Typhoid Fever...	...	...	...	...	...	...	...	1	1
Total.....	23	25	16	9	10	6	81	17	187

## LOCAL GOVERNMENT BOARD INQUIRY.

In February, the Local Government Board instructed their Inspector, Dr. Airy, to visit Hull, to inquire into the general Sanitary condition of the Borough and neighbourhood, with special reference to the exceptional prevalence of Scarlatina. On the 9th March Dr. Airy held a public inquiry in the Town Hall, extending over two days, and as the result of such inquiry, made the following recommendations, viz. :—

### RECOMMENDATIONS.

#### BOROUGH OF KINGSTON-UBON-HULL.

1. The Town Council should be prepared to establish a sewage pumping station for the eastern section of the town, in the same way as they propose to do for the western section. [It may hereafter be found desirable to make similar provision for the old town.]
2. Means should be taken to improve the ventilation of the sewers. This will probably be found all the

more necessary when the pumping stations are established, as there will then be less forcible change of air in the sewers.

3. A systematic inspection of house-drainage should be made, with a view of discovering and removing, or repairing, old defective drains and cesspools.
4. In the case of houses without access from a passage to the privy, the operations of the night-soil men would be facilitated if the privies were furnished with moveable receptacles, pails or tubs, with covers. These operations should be strictly limited to the earlier hours of the morning.
5. Mortuaries should be provided in different parts of the town.
6. The Town Council should keep in view the importance of providing larger and more permanent accommodation than they at present possess for the isolation of cases of infectious disease.
7. The disinfection of infected articles should be made free of charge where the owner or occupier is unable to carry out this requirement.
8. The Medical Officer of Health should give his whole time to the duties of his office, and should be adequately remunerated.
9. On the part of the Port Sanitary Authority, there should be a systematic inspection of all vessels entering the port.

The majority of these recommendations have been adopted, and others are under consideration. Means have been taken to improve the ventilation of the Sewers. A systematic inspection of the house drainage of the Borough has been instituted. The disinfection of infected articles

has been performed, free of charge, by the Sanitary Authority, since the 16th November, 1881. The appointments of a Medical Officer of Health, to devote the whole of his time to such duties, and an Assistant Port Sanitary Inspector, to inspect all Emigrant ships and vessels arriving in the Port, have been made.

## SANITARY WORK.

The Sanitary Work of the Borough has been conducted with unremitting activity throughout the year. A summary of the work has been tabulated by the Chief Inspector of Nuisances, and is included in the Report. In accordance with the regulations of the Local Government Board, a careful visitation of the various districts into which the town has been divided has been made, and special attention has been directed to those districts known to be unsanitary.

## NIGHT-SOIL COLLECTION.

There are 38,781 houses in the Borough, which, under the terms of the contract, have all to be collected once in every seven days. There is no doubt the lowering of the death-rate, especially amongst young children, in Hull, is mainly due to the improved system of night-soil collection.

## COWSHEDS, DAIRIES, AND MILK SHOPS.

“The Dairies, Cowsheds, and Milk Shops’ Order, 1879,” requires that all Cowsheds and Dairies should be registered, and the lighting, ventilation, air space, cleansing, drainage and water supply, which are necessary for the health and good condition of the cattle therein, shall be attended to. There were, in 1882, 875 places registered under the above Act, viz.:—Cowsheds, 155; Dairies, and Houses registered for the sale of Milk, 720. The greater proportion of registered milk shops in the Borough, are only for the sale of small quantities of milk. In places where milk is stored, great care has been taken to see that there is no drain communicating with the store-place, and that such place is kept clean and well ventilated.

### FISH-CURING HOUSES.

There are 44 Fish-curing and Smoke Houses within the Borough. They are regularly inspected by the Fish Inspector, and have been found in a sanitary condition.

### SLAUGHTER HOUSES.

The number of registered Slaughter Houses in the Borough was 74. It is the duty of the Meat Inspector to visit them, and to see that they are kept in accordance with the Bye-Laws.

### COMMON LODGING-HOUSES.

The number of registered Common Lodging Houses in the Borough is 54, containing 249 rooms, for the accommodation of 1024 lodgers. In order to keep these places in a clean and healthy condition, it is necessary to make frequent daily and nightly inspections, to see that they are not overcrowded, and that the rooms are efficiently ventilated.

### UNWHOLESOME FOOD.

During the year there have been 190 tons of Meat, Fish, Fruit, &c., destroyed, as being unfit for human food. The majority of the food has been seized by the Meat and Fish Inspectors, and has been dealt with by Magistrates' order.

### DISINFECTATION.

There have been 798 houses fumigated and disinfected by the Officials of the Health Department. In those cases where done by the owners and occupiers themselves, a certificate has been given by the medical attendant that the necessary disinfection has been carried out. 18,895



articles of bedding, clothing, &c., have been removed to the Hospital for disinfection. The articles disinfected were exposed to a temperature of 250 degrees, for periods varying from three to six hours, according to their texture. The temperatures at which the stove was worked, were, maximum,  $257\frac{1}{2}$  degrees, and minimum,  $242\frac{1}{2}$  degrees; mean, 250 degrees.

To complete the sanitary arrangements, an ambulance carriage, for conveying infected patients from their homes to the Hospital, has been provided.

#### DISTRIBUTION OF DISINFECTANTS.

During the summer months four carts and eight men have been engaged in the distribution of disinfecting fluid, and 648,000 gallons have been poured down the gullies and drains of the streets, courts, and alleys of the town.

About 50 gallons of disinfecting fluid, with instructions for its use, have been given to people applying at the Health Department, where cases of infectious disease have existed in their homes.

#### PORT SANITARY ADMINISTRATION.

During the year ending 31st December, 1882, 2978 steamers and vessels entered the Port.

Vessels arriving from Foreign parts, and having infectious disease on board, are notified by the Custom House officials, to the Sanitary Authority. Every precaution has been taken against the spread of infection, by the immediate isolation of the Sick in Hospital, and the thorough disinfection of the vessels and clothing.

## EMIGRANTS.

During the past year, 64,937 Emigrants have passed through the town, via Liverpool, to America.

Six cases of Measles occurring among Emigrant children have come under the notice of the Sanitary Authority. The attention of the Sanitary Authority has been directed to the requisite lodging accommodation for Emigrants, should they be detained in town. I was requested by the Committee, in consequence of the overcrowding of some of the Common Lodging Houses, to make arrangements with Messrs. Thomas Wilson, Sons, and Co., and the Emigration Agents, with a view to the requisite accommodation being provided.

The inspection, now instituted by the Port Sanitary Authority, of all Emigrant ships and vessels entering the Port, is working very satisfactorily.

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In concluding my Report, I beg to thank the Chairman and Members of the Sanitary Committee for the able and kind support invariably extended to myself and other officers of the department in the discharge of our duty.

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APPENDIX

TO THE

Report of the Medical Officer of Health.

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1882.

ZYMOTIC DISEASES.—STREET LIST.

DRYPOOL.

	Small Pox.	Measles.	Scarla- tina.	Diph- theria.	Whoop- ing Cough.	Fevers.	Diarr- hœa.
Arundel Street .....	0	2	1	0	0	0	0
Alma Street .....	0	0	0	0	0	1	0
Beeton Street .....	0	2	2	0	0	0	0
Barnsley Street.....	0	3	3	0	0	3	3
Beaumont Street ...	0	1	0	0	0	0	1
Bright Street.....	0	0	3	0	0	0	3
Buckingham Street.	0	0	1	0	0	0	2
Burleigh Street.....	0	2	0	0	0	0	0
Courtney Street ...	0	1	5	0	0	0	0
Craven Street .....	0	1	0	0	0	0	1
Dansom Lane .....	0	0	2	0	0	0	0
De la Pole Place ...	0	0	1	0	0	0	0
Feather Lane .....	0	0	0	0	0	0	1
*Garrison.....	11	0	12	0	0	0	0
Great Union Street..	0	4	0	0	0	0	0
Gerard Street .....	0	0	0	0	0	0	1
Hedon Road .....	0	3	1	0	0	0	1
Hume Street .....	0	1	0	0	0	0	0
Holderness Road ...	1	0	0	0	2	1	3
James Street.....	0	0	0	0	0	0	1
Kent Street .....	0	0	4	0	0	1	3
Lee Smith Street ...	0	0	4	0	0	0	1
Marvel Street .....	1	0	0	0	0	0	1

\* Fever Hospital—Scarlatina, 12 ; Smallpox, 11.

## EAST SCULCOATES—Continued.

	Small Pox.	Measles.	Scarla- tina.	Diph- theria.	Whoop- ing Cough.	Fevers.	Diarr- hoea.
New George Street	0	0	0	0	0	0	4
Oxford Street.....	0	2	0	0	0	0	2
Princess Street .....	0	0	0	0	0	0	2
St. Silas Street .....	0	0	0	0	0	0	1
Scott Street .....	0	0	0	0	0	0	1
Swann Street.....	0	0	0	0	0	0	1
Sykes Street .....	0	2	0	0	0	0	1
Trevor Street.....	0	0	0	0	0	0	1
Wincolmlee .....	0	0	1	0	0	0	0
York Street .....	0	0	0	0	0	0	3

## WEST SCULCOATES.

Albion Street.....	0	0	3	0	0	0	0
Alicia Street .....	0	0	2	0	1	0	3
Blake Street .....	0	0	0	0	1	0	2
Brunswick Avenue..	0	0	1	0	1	0	1
Blundell Street .....	0	0	0	0	1	0	0
*Beverley Road .....	0	2	0	0	1	0	10
Cave Street .....	0	0	0	0	0	0	1
Clifton Street.....	0	0	2	0	0	0	0
Cottingham Place...	0	0	2	0	0	0	0
Drain Side.....	0	0	1	0	0	0	0
Derby Street .....	0	0	2	0	0	1	4
Davis Street .....	0	0	0	0	0	0	1
Finsbury Street.....	0	1	0	0	0	0	1
Fountain Road .....	0	0	0	0	0	0	1
Francis Street .....	0	0	0	0	0	0	1

\* The Workhouse.

## WEST SCULCOATES—Continued.

	Small Pox.	Measles.	Scarla- tina.	Diph- theria.	Whoop- ing Cough.	Fevers.	Diarr- hoea.
Freehold Street.....	0	0	0	0	0	0	1
Grange Street .....	0	0	2	0	0	0	1
Grosvenor Street ...	0	0	1	0	0	0	1
Grove Street .....	0	0	1	0	0	0	0
Gibson Street .....	0	0	1	0	0	0	0
George Street .....	0	0	0	0	0	0	1
Hopwood Street ...	0	0	0	0	0	0	1
Leonard Street .....	0	0	0	0	0	1	2
Liddell Street .....	0	0	0	0	0	1	1
Lorne Street .....	0	1	0	0	1	0	5
Marlboro' Terrace...	0	0	0	0	0	0	3
Morpeth Street.....	0	0	1	0	0	0	0
Norfolk Street .....	0	0	1	0	0	0	0
Peel Street.....	0	0	1	0	0	0	0
Providence Row ...	0	0	1	0	0	0	1
Raywell Street .....	0	0	0	0	0	1	4
Reed Street .....	0	0	1	0	0	0	0
Reform Street .....	0	0	0	0	0	0	1
Ripon Terrace .....	0	0	0	0	1	0	0
Rodney Street .....	0	1	0	0	0	0	1
Rose Street .....	0	0	0	0	0	0	1
Russell Street .....	0	0	0	0	1	0	2
St. Paul Street .....	0	3	3	1	1	1	2
St. Hilda Street ...	0	0	0	0	0	0	1
Savile Street .....	0	0	0	0	0	0	1
Seaton Street .....	0	0	0	0	0	0	1
Sculcoates Lane ...	0	0	3	0	0	1	0
Smeaton Street.....	0	0	0	0	0	0	1
Stepney .....	0	0	3	0	0	0	0
Stepney Lane .....	0	0	2	0	0	0	0
Symons Street .....	0	0	0	0	0	0	1

## WEST SCULCOATES—Continued.

	Small Pox.	Measles.	Scarla- tina.	Diph- theria.	Whoop- ing Cough.	Fevers.	Diarr- hoea.
Terry Street .....	0	1	1	0	0	0	1
Vincent Street .....	0	1	0	0	0	0	1
Waterloo Street ...	0	0	5	0	0	1	4
Waterworks Street..	0	0	0	0	0	0	1
Wellington Lane ...	0	0	4	0	0	0	1

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### HUMBER.

Blanket Row .....	0	0	1	0	0	0	2
Blackfriargate .....	0	0	1	0	0	0	0
Nelson Street .....	0	0	1	0	0	0	0
Parliament Street...	0	0	0	0	0	1	0
Posterngate .....	0	0	0	0	0	0	1
Princes Dock Street	0	0	0	0	0	0	1
Queen Street.....	0	0	0	0	0	1	0
Scale Lane .....	0	0	0	0	0	0	1
Whitefriargate .....	0	0	2	0	0	0	0

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### ST. MARY.

George Yard .....	0	0	1	0	0	0	0
High Street .....	1	0	0	0	0	0	0
Salthouse Lane.....	0	0	1	0	0	0	0
Trippett .....	0	0	2	0	0	0	0
Trippett Street .....	0	1	0	0	0	1	0



# MYTON.

	Small Pox.	Measles.	Scarla- tina.	Diph- theria.	Whoop- ing Cough.	Fevers.	Diarr- hoea.
Adelaide Street .....	0	0	2	0	0	0	4
Alexandra Street ...	0	0	2	0	1	1	2
Alfred Street .....	0	0	1	0	1	0	1
*Anlaby Road .....	1	0	0	0	0	2	5
Anne Street .....	0	0	2	0	0	0	0
Bean Street .....	0	1	5	0	0	1	9
Borough Asylum ...	0	0	0	0	0	0	1
Brook Street .....	0	0	3	0	0	1	1
Burton Street .....	0	1	1	0	0	0	0
Cambridge Street ...	0	0	0	0	0	0	1
Campbell Street ...	0	0	5	0	0	2	0
Canning Street .....	0	0	2	0	0	0	1
Carlisle Street .....	0	0	0	2	0	0	0
Castle Street .....	0	0	0	0	0	0	1
Carr Lane .....	0	0	0	0	0	0	1
Cholmley Street ...	0	0	0	0	0	0	1
Clarendon Street ...	0	0	3	0	0	0	0
Cogan Street .....	1	0	2	0	0	0	0
Collier Street.....	0	0	0	0	1	2	3
Colonial Street... ..	0	1	0	0	0	0	0
Coltman Street.....	0	0	0	0	0	0	1
Constable Street ...	0	1	2	0	0	0	3
Daltry Street.....	0	0	2	0	0	0	1
Day Street.....	0	1	1	0	0	0	0
Derringham Street..	0	0	0	2	0	0	0
East Cheap .....	0	0	2	0	0	0	0
Eton Street .....	0	1	2	0	0	0	0
Edgar Street .....	0	0	3	0	0	0	2
Edward's Place.....	0	0	1	0	0	0	0
English Street .....	0	0	1	0	0	0	5
Fawcett Street .....	0	0	1	0	0	0	0

\* The Workhouse.

## MYTON—Continued.

	Small Pox.	Measles.	Scarla- tina.	Diph- theria.	Whoop- ing Cough.	Fevers.	Diarr- hoea.
West Street .....	0	0	1	0	0	1	2
West Dock Avenue	0	0	2	0	0	0	1
West Parade .....	0	0	1	0	0	0	3
William Street .....	0	0	0	0	0	0	2
Windsor Street.....	0	0	0	0	0	0	1

MORTALITY IN TWENTY LARGE TOWNS, 1872-1882.

CITIES AND BOROUGHES.	Annual Death-rate per 1000 living (in years of 52 or 53 weeks).										Annual Rate of Mortality per 1000.				
	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	From Principal Zymotic Diseases.				
											From all causes.	1882			
											Mean of 10 years, 1872-81	1882			
Twenty Towns...	23.7	23.9	24.9	25.1	23.5	22.7	24.2	23.2	22.7	21.7	23.6	22.3	4.01	3.59	
Yorkshire	Leeds .....	28.1	27.9	29.2	27.0	25.8	23.0	24.7	23.5	22.0	21.6	25.3	23.2	4.54	3.51
	Sheffield .....	26.4	26.3	27.7	25.8	25.5	23.1	26.6	22.9	22.9	21.1	24.8	21.7	4.87	2.87
	Bradford .....	26.7	25.2	27.9	28.3	25.2	23.3	24.1	23.9	22.9	19.7	24.6	21.2	3.88	3.33
	Hull .....	26.1	23.8	25.5	27.3	22.8	21.5	24.1	22.0	23.4	23.8	24.0	23.2	4.63	4.59
	London .....	21.4	22.4	22.4	23.5	22.0	21.5	23.0	22.7	21.6	21.2	22.2	21.4	3.59	3.49
	Liverpool .....	27.1	25.9	32.0	27.5	27.5	26.3	29.2	26.9	27.1	26.7	27.6	26.5	5.24	4.41
	Birmingham .....	23.0	24.9	26.8	26.6	22.7	24.1	25.5	22.1	20.7	20.0	23.6	20.9	4.74	3.48
	Manchester .....	28.9	30.6	31.1	30.9	30.2	28.5	29.2	28.3	26.9	25.5	29.0	26.7	4.65	3.78
	Bristol .....	22.2	23.3	23.1	27.4	23.1	22.5	22.2	22.2	21.9	19.6	22.6	19.2	3.10	2.37
	Nottingham .....	24.7	22.3	23.7	26.1	21.9	21.1	20.1	20.1	21.6	22.4	22.8	23.6	3.46	4.43
	Salford .....	25.4	28.3	28.3	29.7	29.6	26.4	27.1	26.7	28.0	22.6	27.2	23.2	5.65	3.89
	Newcastle.....	26.4	30.3	29.7	26.6	23.3	23.0	24.5	24.4	22.8	21.8	25.3	23.1	4.05	3.33
	Portsmouth .....	23.0	18.5	20.8	20.1	22.8	18.0	19.9	17.6	19.8	19.7	20.0	21.5	3.69	4.43
	Leicester .....	27.7	24.9	24.9	27.7	24.1	22.6	22.1	22.1	23.2	21.8	24.3	20.1	4.87	3.02
	Sunderland .....	26.7	22.9	23.6	22.7	21.2	22.9	25.9	22.3	25.0	20.9	23.4	26.5	4.35	5.75
Oldham.....	30.5	24.9	28.3	27.7	26.9	25.1	27.0	22.8	24.7	22.8	26.1	24.6	4.29	2.80	
Brighton .....	21.0	19.0	20.1	22.4	19.7	18.8	21.3	19.1	19.8	19.0	20.1	21.7	2.35	4.20	
Plymouth .....	22.1	19.3	22.6	20.9	22.4	22.0	25.8	22.9	25.1	19.9	22.3	21.2	3.71	2.14	
Wolverhampton	26.0	25.2	24.1	25.0	24.0	24.4	23.5	23.0	21.3	21.2	23.8	22.4	3.80	3.28	
Norwich .....	26.3	21.5	23.5	24.4	21.7	20.7	24.3	21.7	24.3	19.5	22.8	20.6	3.48	2.46	

Table shewing the Number of Nuisances dealt with by legal notice, 1882.

Orders given to abate.	No. of Nuisances.
To Cleanse choked gullies .....	1083
,, Repair defective pavement .....	520
,, Provide sanitary gullies .....	1048
,, Repair privies .....	256
,, Provide new sanitary pipe drainage .....	736
,, Cleanse choked drains .....	702
,, Disconnect privies from houses .....	17
,, Limewash dirty walls .....	268
,, Erect and repair spouting .....	29
,, Remove offensive refuse .....	125
,, ,, manure .....	31
,, ,, stagnant water .....	25
,, Provide ventilation .....	6
,, ,, privy accommodation .....	4
,, Disconnect sink waste-pipes from drains...	70
,, ,, spouts from drains.....	8
,, Re-lay drains.....	146
,, Provide water supply .....	1
,, Repair roofage .....	3
,, Abate stench nuisances .....	3
,, Remove pigs .....	43
,, Abate smoke nuisances .....	18
,, Erect and repair water-closets .....	38
,, Abate nuisances from damp walls.....	5
,, Erect and repair manure pits.....	19
,, Erect and repair urinals .....	4
,, Provide dust-bins.....	5
,, Remove poultry, pigeons, &c.....	52
,, ,, swill-tubs .....	9
,, Repair sink waste-pipes .....	4
,, Cleanse and disinfect infected houses .....	36
Total.....	5314

Table shewing Number of Articles Disinfected at Hospital and Houses Fumigated during the year 1882.

MONTHS.	No. of Articles.	HOUSES FUMIGATED.	
		DISTRICTS.	No. of Houses.
January.....	2634	Drypool.....	173
February .....	2586	Sutton .....	54
March .....	2710	East Sculcoates ...	29
April .....	2057	West Sculcoates...	178
May .....	1906	Humber .....	12
June .....	1501	St. Mary .....	22
July .....	1013	Myton .....	330
August .....	1207		
September .....	1405		
October.....	605		
November .....	568		
December.....	703		
Totals for the year...	18,895		798

Table of Common Lodging Houses, their situation, and the number of Rooms and Lodgers.

STREETS.	No. of Houses.	No. of Rooms.	Registered No. of Lodgers.
Blanket Row .....	3	24	145
Brook Street .....	1	5	28
Bridge Street.....	1	13	47
Cross Street .....	2	10	41
Garden Street .....	6	24	73
Grimsby Lane .....	2	11	49
Middle Street.....	8	27	75
Mill Street .....	14	50	182
Manor Street.....	1	8	16
North Street .....	2	7	37
Osborne Street .....	1	3	12
Posterngate .....	1	5	28
Robinson Row .....	1	8	33
Salthouse Lane.....	1	5	26
Trippett Street .....	2	9	26
Waltham Street .....	1	7	53
West Street .....	7	33	153
Totals .....	54	249	1024

TABLE SHOWING SANITARY PROSECUTIONS, 1882.

NAME.	OFFENCE.	PENALTIES.
H. Keddy .....	Exposing for sale Meat unfit for human food ...	Three months' imprisonment.
R. Woodall .....	Ditto ditto .....	Fined £15 and costs.
T. Grantham .....	Accumulations of manure on their respective premises .....	Prohibit recurrence and pay costs.
H. Pearson .....		
D. Jackson .....		
T. Singleton .....		
W. Nettleton .....		
G. Boynton .....		
R. Ruler .....		
— Grantham .....	Choked drains at his property, Woodhouse St.... Defective drainage, &c., premises, 31 Staniforth Place.....	Judgment respited on payment of costs.
R. Biggins .....		
W. Rowley .....	Exposing for sale Meat unfit for human food ...	Prevent recurrence and pay costs. Fined £5 and costs.
S. Brumby .....		
F. Dalling .....	Using unlicensed slaughter-house .....	Fined 20s. and costs.
D. Lyons .....	Using unregistered common lodging-house .....	Adjourned, afterwards registered.
E. Haldenby .....	Using unlicensed knacker's yard .....	Fined 50s. and costs.
J. Me. Donald .....	Overcrowding common lodging-house.....	Fined 10s. and costs.
C. Kirk .....	Ditto ditto .....	Judgment respited on payment of costs.
J. Hornsby .....	Using unregistered common lodging-house .....	Summons dismissed.
J. Brodie .....	Nuisances existing on their respective premises	{ Judgment respited for seven days, in order to enable the work to be done.
Mrs. Cook .....		
J. Catton .....		
E. Fowler .....		
W. N. Lewendon .....		
Samuel Smith .....	Nuisance existing on his premises .....	Fined 20s. and costs. Order made for abatement of nuisance.
J. Johnson .....		
F. E. Field .....	Using unregistered common lodging house .....	Fined 20s. and costs.
E. S. Annison .....	Exposing for sale Meat unfit for human food ...	Fined £15 and costs.
J. Hornsby .....	Ditto ditto .....	Fined £10 and costs.
T. Prescott .....	Using unlicensed slaughter-house .....	Fined 20s. and costs.
T. E. Cooper .....		
J. P. Harker .....		

Table shewing Meat, Fish, Fruit, Etc., destroyed as unfit for Human Food.

KIND OF FOOD DESTROYED.	Quantity in lbs.
Mussels and Cockles.....	214,620
Fish.....	117,565
Yeast .....	21,136
Fruit .....	13,768
Vegetables .....	5,790
Rabbits .....	696
Meat .....	52,773
Cheese .....	900
Total in lbs.....	427,248



Table shewing Samples taken under " Food and  
Drugs " Act.

	No. of Samples.
Butter .....	12
Milk .....	26
Lard .....	2
Cheese.....	1
Coffee .....	6
Tea .....	1
Brandy .....	1
Spirits of Nitre .....	6
Brandy .....	2
Total.....	57

TABLE SHEWING APPLICATIONS FOR LICENSES DURING THE YEAR, 1882.

NAME.	PREMISES.	TRADE.	RESULT.
D. Lyons .....	Madeley Street .....	Tripe Dressing .....	Not granted.
Thomas Dent.....	49, Hodgson Street.....	Tripe Boiling .....	Not granted.
George Stephenson .....	Sewer Lane'.....	Tripe Boiling .....	Granted.
Thomas Dent .....	Coelus Street .....	Tripe Boiling .....	Not granted.
Thomas Dent .....	Blake Street.....	Tripe Boiling .....	Not granted.
Thomas Dent .....	West Parade .....	Tripe Boiling .....	Not granted.
Thompson, <i>alias</i> Petch..	Portland Place, Prospect Street .....	Slaughter House.....	Not granted.
E. Bray .....	Russell Place, Norfolk Street .....	Slaughter House.....	Not granted.
C. H. Schumm ...	Myton Place .....	Slaughter House.....	Not granted.
W. H. Woodmancy .....	17, Waterhouse Lane ...	Common Lodging-house ...	Granted.
J. Hornsby.....	32, Blanket Row.....	Common Lodging-house ...	Granted.