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THE GREAT YARMOUTH  
URBAN AND PORT SANITARY  
AUTHORITY.

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THE  
ANNUAL REPORT  
OF THE  
**Medical Officer of Health,**  
FOR 1905.

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GREAT YARMOUTH :  
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TOWN HALL,  
GREAT YARMOUTH.

*To the Chairman and Members of the Health Committee.*

GENTLEMEN,

I beg to submit my Annual Report for the year 1905.

The general improvement noted in my Report for 1904 has been well maintained, and indeed greatly surpassed in several important particulars. The Birth Rate is slightly lower, but the general Death Rate from all causes, with the special Death Rates from Zymotic Diseases and Tuberculous Diseases, are all lower.

The Infantile Death Rate is relatively satisfactory, being 12 per thousand less than the average for the 76 great towns of England and Wales, which includes Great Yarmouth, and 41 per thousand below the local average. The number of deaths from the notifiable Infectious Diseases again shows a considerable decrease, the number of deaths due to Scarlet Fever dropping from 3 to 1, those due to Diphtheria from 24 to 2, those due to "Fever" increased from 4 to 6, a total gain of 22 lives. All these figures are greatly below the average for the past ten years.

The total number of notifications of cases of Infectious Diseases has also dropped from 419 to 224; the cases of Scarlet Fever dropping from 140 to 114, the cases of Diphtheria from 162 to 33, and the cases of Typhoid Fever from 64 to 38. No case of Small Pox was notified during the year.

The Isolation Hospital in Estcourt Road has afforded accommodation to 62 per cent. of the total number of notified cases of Scarlet Fever, Diphtheria, and Typhoid Fever.



The routine work of the Sanitary Department has been well maintained, and in addition the systematic house to house inspection has been continued.

A considerable amount of extra work was entailed by the flood which occurred in January, with the result that the majority of the houses which were flooded are actually more sanitary than they were previous to that time.

The sanitary work connected with the Port increased owing to the occurrence of a limited epidemic of Typhoid Fever among the fishermen coming from Scotch ports. The epidemic was entirely confined to men who had contracted the disease before they arrived in the haven.

A special Committee was appointed to deal with the situation arising from the existence of Cholera in the Baltic ports; fortunately no case occurred in the haven, so that the preparations made for special inspections, hospital accommodation, and disinfection were not put into force.

I am, Gentlemen,

Your obedient servant,

H. W. BEACH,

*Medical Officer of Health.*

# STATISTICAL SUMMARY FOR THE YEAR 1905.



## GENERAL STATISTICS.

Area of District in acres (excluding area covered by water)	.. .. .	3,566
Population estimated by the Registrar-General for the middle of 1905	.. .. .	52,353
Number of persons to the acre	.. .. .	14.6
Estimated number of Inhabited Houses	.. .. .	12,620
Assessable Value of District	.. .. .	£235,792
Product of a Penny General District Rate (4s. 1d. in the £)	.. .. .	£875
Product of a Penny in all other rates (3s. 1d. in the £)	.. .. .	£890
Total Revenue	.. .. .	£143,591
Net indebtedness	.. .. .	£346,073

## VITAL STATISTICS.

Births registered during 1905 (decennial average for the years 1895-1904, 1443)	.. .. .	1437
Birth Rate (decennial average 28.2)	.. .. .	27.4
Total number of Deaths registered during 1905 (including deaths of residents in the port)	.. .. .	835
Deaths of Non-Residents in Public Institutions	.. .. .	33
Net deaths of Residents (decennial average 940)	.. .. .	802
Death Rate (decennial average 18.4)	.. .. .	15.3
Deaths of Infants under one year (average 246)	.. .. .	185
Infantile Death Rate per thousand births registered (average 169)	.. .. .	128
Death Rate from Zymotic Diseases (average 2.48)	.. .. .	0.88



## AREA OF THE BOROUGH.

The total area is 3,566 acres, Gorleston and Southtown occupying 2,148 acres, the Northern Registration District 895 acres, the Southern District 479 acres, and Runham Vauxhall 44 acres.

## POPULATION.

The Registrar-General's estimate of the population for the middle of 1905 is 52,353, a number which is calculated by presuming that the population has continued to increase at the same rate as it did during the intercensal period from 1891 to 1901.

This figure appears to be considerably below the truth, as 963 dwelling houses have been erected since the date of the last census, when the enumerated population was found to be 51,316; allowing only 4.5 persons to each house, the gross increase in the population should be 4,333, and, after making an allowance of 445 persons displaced from disused dwelling houses, the net total April population should be 55,204.

The excess of births over deaths, during the same time, has been 2,159, producing a total population of 53,240, but this so-called natural increase in the population does not take into account any immigration into the Borough from other districts. Another serious source of error arises from the fact that the census is always taken in April, when the population of Great Yarmouth is at its lowest. The resident population is increased by at least 50 per cent. during ten weeks in the summer season, and by at least 12 per cent. during thirteen weeks in the fishing season, so that the true average population throughout the year may be taken, at a very moderate estimate, as over 62,000.

The loss of nearly a sixth of the population naturally makes a considerable difference to the death and birth

rates, as all statistical rates must be calculated on the Registrar-General's estimate of 52,353; the estimated populations of the different Districts being :—

Northern District .. ..	19,826
Southern District .. ..	15,402
Gorleston and Southtown ..	16,508
Runham Vauxhall .. ..	617

### BIRTHS.

The number of Births registered during the year was 1437, producing a Birth Rate of only 27.4 per thousand of the estimated population. This rate is not only lower than the local average for the past ten years, but is also 0.8 lower than the average for the 76 great towns. The Births assigned to the different districts were :—

Northern District .. ..	539
Southern District .. ..	442
Gorleston and Southtown ..	427
Runham Vauxhall .. ..	29

Ninety-five births were registered as illegitimate, and are included in the totals.

### DEATHS.

The total number of Deaths registered in the Borough was 845, but of this number 33 were non-residents dying in Public Institutions, and 10 were non-residents dying in the Port. Deducting the 43 deaths of non-residents, the net total of deaths during 1904 was 802, producing a net Death Rate of 15.3 per thousand of the population, as compared with a Death Rate of 15.7 for the 76 great towns, and 15.2 for the whole of England and Wales.

The Death Rate is 3.1 lower than the local average for the past ten years, an annual saving of over 150 lives.



Deaths in Public Institutions. One hundred and sixty-five deaths occurred in Public Institutions, distributed as follows:—

Workhouse Infirmary .. ..	97
General Hospital .. ..	52
Isolation Hospital .. ..	3
Gorleston Cottage Hospital ..	1
Royal Naval Hospital .. ..	12

Excluding the deaths of 33 non-residents, the number of residents dying in Public Institutions was 132, an average number.

Ages at Death. Of the total number of deaths, 64 per cent. occurred during infancy or old age, 3 per cent. occurred during the school ages (5-15), and the remainder during the fifty years of working life (15-65).

The death-rate in 1905 was 3.1 below the average for the previous ten years, and was also considerably below the death rate in any single year, that for 1902 being the nearest, when it was 16.5 or 1.2 higher than in 1905.

In the following table the differences in the numbers from the more important causes of death are set forth, comparison being made between the numbers for 1905 and the average annual number for the previous ten years.

Notifiable Zymotic Diseases,	44 decrease in 1905
Non-notifiable ditto	55 do.
Influenza ..	20 do.
Respiratory Diseases	28 do.
Heart Diseases ..	27 increase in 1905

The most considerable decrease has occurred in the group of diseases classed as zymotics, the notifiable zymotic diseases being reduced to one-sixth of the average, and the non-notifiable zymotic diseases to two-fifths. The number of deaths from the non-notifiable diseases and from influenza and respiratory diseases cannot be directly influenced by the action of a sanitary authority, so that the reduction in the number of deaths from these



diseases must be regarded as a fortunate circumstance which may not recur, but the reduction in the number of deaths from the notifiable diseases may be fairly regarded as in great part due to the direct action of the Corporation, and may be expected to recur.

The Registrar-General in his Annual Summary gives an interesting table, which affords a possibility of making a fair comparison between the death rates in the 76 "Great Towns." In this table the recorded death rate for each town is corrected by a figure, which makes allowance for variations in the distribution of different ages and sexes in the various towns, the correction for Great Yarmouth being the greatest for any town as the number of aged people, *i.e.* people who are more likely to die, is so unusually great in Great Yarmouth that a special allowance is made by the Registrar General.

The importance of making this correction is seen when the position of Great Yarmouth in the list of the 76 great towns is compared before and after correction. Without this correction Great Yarmouth stands forty-second, but after correction it is placed twenty-first, above many towns which at first sight appear to be more healthy, judging by the recorded death rate.

This corrected death rate is of course calculated on the Registrar-General's estimate of the population, which, as I have shown above, is considerably below the actual average local population, but even so the official position of the town is not unsatisfactory.

#### INFANTILE MORTALITY.

One hundred and eighty-five children died before they had reached the age of twelve months. This number produces an Infantile Death Rate of 128 per thousand births registered, 41 per thousand under the average for the past ten years, and a decrease of 37 on the corresponding figure of 1904.



Table V. on page 25 shows the certified causes of deaths at various ages under twelve months. The table will repay attention, the most noteworthy point being that more than a third of the total mortality occurred in babies under one month old. Thirty-two of these children were certified to be prematurely born, and in addition 12 were certified to be suffering from congenital defects or disease, so that 44 out of the 67 children who died when less than one month old were greatly handicapped at the start of their struggle for a separate existence. It should be possible to reduce this enormous mortality, and it is to be hoped that the newly constituted Committee, specially appointed to deal with this subject, will receive the support which it will need.

The members of this Committee have recorded their opinion that steps should be taken to obtain the compulsory notification of all births within 48 hours of their occurrence. This is essential if infantile mortality is to be seriously combated, for it is during the first three days of a child's life that the mode of feeding is settled. If the information is delayed for even so short a period as one week, the time has passed when it might have been possible to persuade the mother to fulfil her maternal duties to the utmost by suckling her child, thus enormously reducing the risk of at least one great source of infantile mortality, viz.: Summer Diarrhoea (v. pp. 16). Of course I do not mean to suggest that breast feeding is a panacea for all infantile disorders, nor do I suggest that bottle feeding means certain disease, but all statistics show that bottle feeding under proper conditions is out of the reach of the average mother, owing to the difficulty and constant worry which it entails, not to mention the expense of a sufficiency of good cows' milk, which is a serious matter to a poor family.

The subject of infant feeding is taught in the elementary schools, but it is obviously impossible to lay



stress on the only natural food for infants, the consequence being that the lessons are largely occupied in attempting to teach children the best methods of preparing and administering what is after all only a makeshift for the natural food.

The solution of the difficulty may be found in utilising the services of volunteer helpers who are acquainted with the localities in which they are working; this should be practicable under the present local conditions, and appears more useful than the distribution of circulars or the wholesale provision of sterilised milk.

The number of deaths under one month is very important from a preventive point of view, as the existing Acts concerning the Registration of Births permit a delay of six weeks before registration becomes compulsory. As a natural result it not infrequently happens that a child is dead before its birth is registered, with the further result that it is impossible to bring any public influence to bear on the parents or guardians if reliance is placed on the Registrars' returns alone.

The principal causes of the total infantile mortality stated in percentages are :—

From Wasting Diseases	..	43.8
„ Diarrhoeal Diseases	..	18.9
„ Tuberculous Diseases	..	7.6
„ Respiratory Diseases	..	14.1
„ Convulsions	.. ..	4.3
„ Overlaid	.. ..	2.2
„ Syphilis	.. ..	1.6
„ Meningitis	.. ..	1.6
„ Common Infectious	.. ..	1.6
„ Unclassified	.. ..	4.3

The death rate among illegitimate children was, as usual, more than twice that among legitimate children, the rates per thousand births being 263 and 119 respectively.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1905 AND PREVIOUS YEARS.

Year.	Population estimated to middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	NET DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
				Under 1 year of age.		At all Ages.				No.	Rate.*
		No.	Rate.*	No.	Rate per 1000 Births registered.	No.	Rate.*				
1	2	3	4	5	6	7	8	9	10	11	12
1895	50,167	1473	29.32	269	183	960	19.13	140	26	934	18.61
1896	50,365	1438	28.55	220	153	872	17.31	119	15	857	17.01
1897	50,564	1487	29.40	274	184	966	19.1	120	17	949	18.76
1898	50,763	1412	27.85	306	216	1124	22.14	164	37	1087	21.41
1899	50,963	1479	29.02	251	169	981	19.24	173	72	909	17.83
1900	51,165	1396	27.28	277	198	1135	22.18	205	60	1075	21.01
1901	51,367	1469	28.60	244	165	950	17.9	194	18	932	18.10
1902	51,610	1406	27.24	204	145	893	17.3	185	41	852	16.50
1903	51,851	1426	27.5	173	121	960	18.51	244	36	924	17.82
1904	52,099	1453	27.9	240	165	927	17.6	169	40	887	17.02
Averages for Years 1895-1904.	51,091	1443	28.27	246	170	977	19.04	171	36	941	18.40
1905	52,353	1437		185		845			43	802	

\*Rates in columns 4, 8, and 12 calculated per 1,000 of estimated population.

NOTE.—The deaths included in column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in column 11 are the number in column 7, corrected by the subtraction of the number in column 10.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there.

The "Public Institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses, and lunatic asylums.

Area of District in acres (exclusive of area covered by water)	-	3566	
Total population at all ages	...	51,316	} At Census of 1901.
Number of inhabited houses	...	11,821	
Average number of persons per house		4.3	



TABLE II.

VITAL STATISTICS OF THE SEPARATE LOCALITIES IN 1905 AND PREVIOUS YEARS

Year.	Northern District.				Southern District.				Gorleston and Southtown.				Rumham Vauxhall.											
	Population esti- mated to middle of each year.		Deaths at all Ages.		Deaths under 1 year.		Births registered.		Population esti- mated to middle of each year.		Deaths at all Ages.		Deaths under 1 year.		Population esti- mated to middle of each year.		Births registered.		Deaths at all Ages.		Deaths under 1 year.			
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
1895	19,871	572	440	96	15,712	472	324	110	13,979	396	182	56	605	33	14	7	605	33	14	7	605	33	14	7
1896	19,866	501	378	91	15,682	473	309	73	14,211	440	178	54	606	24	7	2	606	24	7	2	606	24	7	2
1897	19,862	524	427	94	15,650	485	287	83	14,444	455	241	95	608	23	11	2	608	23	11	2	608	23	11	2
1898	19,857	516	505	115	15,619	420	335	84	14,678	458	270	103	609	18	14	4	609	18	14	4	609	18	14	4
1899	19,853	491	442	95	15,583	517	328	78	14,917	455	208	76	610	16	3	2	610	16	3	2	610	16	3	2
1900	19,848	486	523	121	15,550	442	298	79	15,156	444	245	74	611	24	9	3	611	24	9	3	611	24	9	3
1901	19,844	529	402	98	15,518	463	286	71	15,393	461	232	70	612	16	12	5	612	16	12	5	612	16	12	5
1902	19,839	506	359	72	15,491	431	253	63	15,677	451	236	68	613	18	4	1	613	18	4	1	613	18	4	1
1903	19,835	496	383	62	15,468	431	309	57	15,934	471	227	54	614	28	5	0	614	28	5	0	614	28	5	0
1904	19,830	556	366	86	15,435	409	240	71	16,219	466	272	78	615	22	9	5	615	22	9	5	615	22	9	5
Averages of years, 1895-1904.	19,850	518	431	93	15,570	454	297	77	15,061	449	229	73	610	22	9	3	610	22	9	3	610	22	9	3
1905	19,826	539	379	82	15,402	442	229	51	16,508	427	184	47	617	29	10	5	617	29	10	5	617	29	10	5

NOTE.—Deaths of residents occurring in public institutions beyond the district are included in Sub-columns *c* of this Table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms "resident" and "non-resident.")



TABLE III.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905.

Causes of Death.	Deaths in or belonging to whole District at subjoined Ages.							Deaths in or belonging to Localities (at all Ages).				Total Deaths in Public Institutions in District
	All ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 & upwards.	Northern.	Southern.	Gorleston and Southtown.	Runham Vauxhall.	
Small Pox - - -	-	-	-	-	-	-	-	-	-	-	-	-
Measles - - -	-	-	-	-	-	-	-	-	-	-	-	-
Scarlet Fever - -	1	-	1	-	-	-	-	1	-	-	-	1
Whooping-cough -	4	3	1	-	-	-	-	-	1	2	1	-
Diphtheria & Mem- branous Croup -	2	-	-	2	-	-	-	1	1	-	-	1
Croup - - -	1	-	1	-	-	-	-	-	1	-	-	-
Fever { Typhus - -	-	-	-	-	-	-	-	-	-	-	-	-
{ Enteric - -	6	-	-	-	3	2	1	3	2	1	-	2
{ Other continued -	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic Influenza	5	-	-	-	1	1	3	3	1	1	-	1
Cholera - - -	-	-	-	-	-	-	-	-	-	-	-	-
Plague - - -	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhœa - - -	33	30	2	-	-	-	1	17	8	8	-	2
Enteritis - - -	7	5	1	-	-	-	1	3	1	3	-	-
Puerperal Fever -	3	-	-	-	1	2	-	-	2	1	-	-
Erysipelas - -	-	-	-	-	-	-	-	-	-	-	-	-
Other Septic Diseases	25	-	4	1	-	7	13	12	8	5	-	9
Phthisis (Pulmonary Tuberculosis) -	41	1	1	3	10	26	-	15	15	11	-	5
Other Tubercular Diseases - - -	31	13	7	6	1	3	1	18	8	5	-	5
Cancer, Malignant Disease - - -	60	-	-	-	-	34	26	30	14	15	1	15
Bronchitis - - -	42	12	3	-	-	9	18	22	9	11	-	3
Pneumonia - - -	22	2	5	1	-	9	5	12	3	5	2	5
Pleurisy - - -	2	-	-	-	-	2	-	-	-	2	-	1
Other Diseases of Respiratory Organs	37	12	9	-	1	8	7	19	11	6	1	7
Alcoholism } Cirrhosis of Liver }	14	-	-	-	-	13	1	6	6	2	-	2
Venereal Diseases -	4	3	1	-	-	-	-	2	2	-	-	2
Premature Birth -	37	37	-	-	-	-	-	18	7	10	2	-
Diseases and Acci- dents of Parturi- tion - - -	8	-	-	-	1	7	-	1	4	3	-	-
Heart Diseases -	103	-	1	5	1	39	57	48	27	28	-	34
Accidents - - -	24	4	2	1	-	7	10	9	11	3	1	11
Suicides - - -	4	-	-	-	-	3	1	2	1	1	-	-
Diseases of Blood- vessels - - -	72	-	-	1	2	18	51	28	29	15	-	9
Congenital Defects and Debility -	24	24	-	-	-	-	-	17	5	1	1	1
All other causes -	190	39	4	6	3	43	95	92	52	45	1	49
All causes -	802	185	43	26	24	233	291	379	229	184	10	165

THE ANALYSIS OF THE PRINCIPAL CAUSES  
OF DEATH.

(As tabulated in Table III.)

THE ZYMOTIC DISEASES.

The Zymotic Death-rate amounts to 0.88 per thousand of the estimated population. This rate is only one-third of the local average for the last ten years, and compares very favourably with the average for the 76 great towns. (1.88 per thousand).

The following table shows the mortality from the seven diseases from which the Zymotic Death-rate is calculated:—

A.—ZYMOTIC DISEASES NOT NOTIFIABLE DURING LIFE.

	1905.	1904.	1903.	Decennial Mean. 1895-1904.
Measles	0	12	12	20
Whooping Cough	4	33	14	17
Diarrhœa	33	53	29	55

B.—ZYMOTIC DISEASES. (All known cases notified).

Small-pox	0	0	0	0.1
Scarlet Fever	1	3	27	7
Diphtheria	2	24	44	32
Typhoid & Continued Fever	6	4	6	16

MEASLES.

There were no deaths from this disease in 1905. It is most unusual for an entire year to pass without a single death from this scourge of infancy in a town of the size of Great Yarmouth, and we cannot expect this state of things to continue.



## WHOOPING COUGH.

The number of deaths from this disease were less than a quarter of the local average.

## DIARRHŒA.

The deaths certified as due to Diarrhœa, Zymotic Enteritis and other diarrhœal diseases amounted to 33, a reduction of 22 on the decennial mean. In addition, 7 deaths were ascribed to Enteritis, not definitely Zymotic, and the two groups of diseases will be classed together in order to consider their principal causes.

The total number of persons who died of Diarrhœa during the year was 33, 30 being under one year of age, 2 being aged between one year and five, and one was over 65 years of age.

In thirty-one cases enquiries were made as to the surroundings and circumstances of the Infants who died from Diarrhœa or Enteritis with the following results:—

Age at death.—Under two months 5.

Two to three months 4, including 1 visitor.

Three to six months 13 do.

Six to nine months 4 do.

Nine to twelve months 4 do.

Over twelve months 1.

Method of Feeding.	Under 6 months.	Over 6 months.
Breast Fed	3	1
Breast and other food	2	—
Cows' milk	5	6
Condensed milk	7	3
Patent foods	1	2
Not known	—	1
	—	—
Total	18	13
	—	—



Gross Sanitary Defects were found in five houses.

Position of Food Store.—With external ventilation 6, in living room or ventilated into living room 19, under staircase 5, unknown 1.

Water supply.—With two exceptions from the Waterworks.

Employment of Mothers.—Although a considerable number of the mothers of these children took in lodgers or otherwise added to their ordinary housework, only four mothers had to leave their children while they went out to work.

I have to thank some of the Corporation Nurses for making enquiries during the hotter months of the year as to methods of infant feeding generally adopted in the Borough.

Owing to the large number of removals it was not possible to get anything like a complete return on this subject, but the following figures, which refer to children under six months alone, are accurate as far as they go.

	Row area.	Yarmouth outside Rows.	Cobholm and Southtown.	Total.	Percentage.
Breast Milk only	97	134	55	286	63
Breast Milk and other food	5	20	1	26	6
Cows' Milk	34	50	5	89	19
Condensed Milk	8	15	15	38	8
Patent Foods and mixed diet	6	9	—	15	4
	—	—	—	—	—
Totals	150	228	76	454	100
	—	—	—	—	—

Comparing this table with that referring to the feeding of the infants who died from diarrhoeal diseases, it will be seen that although 63% of the average infants under six months were fed on breast milk, only 17% of the children dying from diarrhoeal diseases were breast fed. The odds in favour of the breast fed children being more than eight to one, *i.e.* as regards death from diarrhoea.

#### DEATHS FROM THE NOTIFIABLE ZYMOTIC DISEASES.

The number of deaths from this group of diseases was reduced by seventy per cent., the principal reduction being in the fatality from Diphtheria. For the sixth year in succession, no resident in the Borough died from Smallpox. The detailed statistics of the notifiable diseases are more fully considered on pages 21 to 24.

#### TUBERCULOUS DISEASES.

Tuberculous Diseases caused 72 deaths during the year, of these 41 were certified to be due to Tuberculosis of the Lungs.

In order to emphasise the importance of the age-distribution of the deaths from Tuberculosis of the Lungs, a table has been prepared, as in the report for 1904, by means of which a comparison may be made between the percentage of deaths due to Phthisis at different age periods and the percentage of the total deaths due to the notifiable diseases, which include Scarlet Fever, Diphtheria, Typhoid Fever, and Small-pox.

	Under 1 year.	1-5.	5-15.	15-25.	25-65.	65 & over.	at all ages.
Deaths from Phthisis as a percentage of the total mortality from all causes at the same ages. }	0.5	2.3	11.5	41.6	11.1	0.0	5.1
Deaths from the noti- fiable diseases as a similar percentage. }	1.5	4.6	7.7	12.5	0.8	0.3	1.1



The majority of the deaths from Consumption occurred in private houses, only two residents dying in Public Institutions. Disinfection was suggested in all cases where death occurred in a private dwelling house, and the bedding and clothing were disinfected in 28 cases. As the disease is not yet notifiable before death, no other preventive measures could be put in force.

#### RESPIRATORY DISEASES.

The number of deaths from Respiratory Diseases (excluding Phthisis) was a little below the average for the past ten years.

#### OTHER IMPORTANT CAUSES OF DEATH.

Cancer caused 60 deaths, Heart Disease caused 103, Accidents caused 24, and 14 were certified to be due to Alcoholism or Cirrhosis of the Liver.



TABLE IV.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1905.

Notifiable Disease.	Cases notified in whole District.							Total Cases Notified in each Locality.				No. of Cases Removed to Hospital from each Locality.			
	At all Ages.	At Ages—Years.						Northern District.	Southern District.	Gorleston and Southtown.	Ranham Vauxhall.	Northern District.	Southern District.	Gorleston and Southtown.	Ranham Vauxhall.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.								
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria	33	5	22	3	3	—	17	5	10	1	8	1	8	1	—
Membranous Group	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	36	1	2	2	26	5	15	15	6	—	—	—	—	—	—
Scarlet Fever	114	26	66	15	6	—	41	33	38	2	37	22	20	2	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	38	—	12	11	15	—	10	14	13	1	3	5	8	—	—
Relapsing Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	3	—	—	—	3	—	1	2	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	224	1	32	102	31	53	84	69	67	4	48	28	36	3	—

## THE NOTIFIABLE INFECTIOUS DISEASES.

The table on page 20 presents an analysis of all the notifications received during 1905, according to ages and localities, with the numbers removed to the Isolation Hospital.

In the table given below a comparison is made between the number of notifications in 1905 and in previous years, showing a progressive diminution.

	Decennial mean. (1895-1904).	1903.	1904.	1905.
Smallpox	1.2	—	—	—
Scarlet Fever	178.7	412	140	114
Diphtheria	177.2	318	162	33
Typhoid Fever	124.7	28	64	38
Erysipelas	40.9	92	52	36
Puerperal Fever	2.7	4	1	3
	—	—	—	—
Totals	525.4	854	419	224
	—	—	—	—

## SCARLET FEVER.

A further reduction occurred in the number of notifications of this disease. Only one child died as compared with 3 deaths in 1904 and 27 in 1903. Nearly a third of the total number of cases were due to children who contracted the disease during the holidays in such a mild form that the existence of the disease was not noticed until they returned to school and infected other children. During the course of my routine inspection of scholars no fewer than seven children were found to be "peeling" and were isolated. In one case the school was closed and the building disinfected throughout.



The monthly incidence of the disease is shown in the following table :—

Month,	Total Number,	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	No. of Removals to Hospital
January	15	2	4	9	—	7
February	9	4	1	4	—	8
March	17	3	6	8	—	14
April	9	2	5	2	—	6
May	2	1	—	1	—	2
June	3	1	1	1	—	1
July	1	1	—	—	—	1
August	4	2	1	1	—	2
September	19	12	3	4	—	15
October	17	7	4	4	2	16
November	9	1	5	3	—	4
December	9	5	3	1	—	5
	—	—	—	—	—	—
Totals	114	41	33	38	2	81
	—	—	—	—	—	—

Three visitors who were incubating the disease before arrival in the Borough, and one case from a fishing boat in the Port, are included in the total, but none of these four cases appeared to have caused the spread of infection, although there can be no doubt that infection was introduced from without during August or the beginning of September. An epidemic of Scarlet Fever occurred in a neighbouring rural district during May and June, but there is no reason to believe that any infection was derived from this source, as the Borough was practically free from known cases of the disease during the four summer months.

#### DIPHTHERIA AND MEMBRANOUS CROUP.

The progressive diminution in the number of cases and deaths from these diseases is very satisfactory. For some years the local prevalence of Diphtheria was exces-

sive, but since the early months of 1904 there has been a continuous low rate of notifications, and during 1905 the monthly average has been less than three.

More than half the cases were due to infection introduced from other places, but this cannot be avoided in a town with a large population of visitors.

The incidence of the disease is shown in the following table :—

Month.	Total for Month in 1905.	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	No. of Removals to Hospital.
January	—	—	—	—	—	—
February	3	1	—	2	—	1
March	5	2	1	2	—	4
April	—	—	—	—	—	—
May	1	1	—	—	—	1
June	—	—	—	—	—	—
July	—	—	—	—	—	—
August	—	—	—	—	—	—
September	2	2	—	—	—	2
October	6	2	4	—	—	—
November	11	5	—	5	1	9
December	5	4	—	1	—	1
	—	—	—	—	—	—
Totals	33	17	5	10	1	18
	—	—	—	—	—	—

#### TYPHOID OR ENTERIC FEVER.

Thirty-eight cases of this disease were notified in 1905, a considerable reduction on the numbers for previous years, with the single exception of the year 1903.

Nine of these patients were incubating the disease on their arrival in the town, leaving 29 local cases for consideration. In eighteen cases no definite source of infection could be traced; in two cases there was a history of attendance on previous cases, and in the remaining



local cases (nine in all) there was a definite history of the consumption of mussels at dates corresponding with the invasion of the disease, and there can be no doubt as to the source of infection. In my report for 1904 I dealt with the best method of endeavouring to prevent this unnecessary waste of health and life, and I would refer to pp. 25-27 of that report.

The monthly incidence of the disease is shown in the following table:—

Month,	Total Number.	Northern District.	Southern District.	Gorleston and Southtown.	Runham Vauxhall.	No. of Removals to Hospital
January	1	—	1	—	—	—
February	4	1	1	2	—	—
March	6	1	1	3	1	—
April	6	—	4	2	—	3
May	1	—	—	1	—	1
June	—	—	—	—	—	—
July	1	1	—	—	—	—
August	5	4	1	—	—	3
September	2	—	2	—	—	1
October	*7	—	*3	*4	—	3
November	3	2	1	—	—	1
December	2	1	—	1	—	2
Totals	*38	10	*14	*13	1	14

\*Included in the total are four patients who contracted the disease in a Scotch port. The circumstances of these cases are considered on pp. 44 of the Report of the Port Sanitary work.

#### PUERPERAL FEVER.

Three cases of this disease were notified. All occurred in the first quarter of the year.

#### ERYSIPELAS.

Thirty-six cases of Erysipelas were notified, a little below the average number.

TABLE V.

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	Certified ...	34	7	16	10	67	21	27	15	12	6	10	6	5	4	5	7	185
	Uncertified ...																	
Common Infectious Diseases	Small-pox ...																	
	Chicken-pox ...																	
	Measles ...																	
	Scarlet Fever ...																	
	Diphtheria : Croup																	
Diarrhœal Diseases	Whooping Cough						1				1		1					3
	Diarrhœa, all forms		1		1	2		5	7	4		6			2	1	3	30
	Enteritis ( <i>not tuberculous</i> )			1		1		1		1								3
	Gastritis, Gastro-intestinal Catarrh						1	1										2
Wasting Diseases.	Premature Birth	24	3	4	1	32	5											37
	Congenital Defects	2	3	4	2	11	4	3		2								20
	Injury at Birth																	
	Want of Breast-milk				2	2			1	1								4
	Atrophy, Debility Marasmus	2		4	3	9	4	3	1			1			1	1		20
Tuberculous Diseases.	Tuberculous Meningitis													1				1
	Tuberculous Peritonitis : Tabes Mesenterica						1	2	1		2							6
	Other Tuberculous Diseases						1	4	1				1					7
	Erysipelas																	
Syphilis				1	1	1	1										3	
Rickets																		
Meningitis ( <i>not Tuberculous</i> )							1					1			1		3	
Convulsions	1				1	1	1		1	2		1				1		8
Bronchitis			1		1		4	1	1	2						1	2	12
Other Respiratory Diseases							2	2				1	1	4		2		12
Pneumonia									1						1			2
Suffocation, overlaying			1		1	1	1			1								4
Other Causes		5		1		6			1				1					8
		34	7	16	10	67	21	27	15	12	6	10	6	5	4	5	7	185

District of Great Yarmouth. Population estimated to middle of 1905, 52,353.

Births in the year } Legitimate, 1342. Deaths from all Causes at all Ages, 802.  
 } Illegitimate, 95.



## THE MIDWIVES' ACT, 1902.

This Act came into full operation on April 1st, 1905, with the exception of the very important section which will entirely prohibit the practice of midwifery by unregistered persons; this section does not come into operation until 1910.

During 1905 there were only three midwives registered in the borough, all being registered as being in practice previous to the passing of the Act. They attended nearly 150 confinements during the last nine months of the year.

A considerable number of women, who are quite untrained, attend cases of midwifery in the borough, but there is no means of supervising their proceedings except on occasions by means of a coroner's inquest. This unsatisfactory state of affairs will cease in 1910.

## HOUSING OF THE WORKING CLASSES ACTS.

Nine dwellings were reported under these Acts during 1905. Two for general dilapidation, one for absence of sanitary conveniences or water supply, and six for extreme dampness. The dilapidated houses were permanently closed by order of the magistrates; the house without proper water supply was transformed into a warehouse; and four of the six damp houses were rendered fit for habitation by the insertion of damp courses and the ventilation of the underfloor spaces.

## THE ISOLATION HOSPITALS.

The Smallpox Hospital was unoccupied during the year, as no case of Small pox was notified for the third year in succession.

The Estcourt Road Hospital for the Infectious Diseases, other than Smallpox, received 62 % of the total

number of cases of Scarlet Fever, Diphtheria and Typhoid Fever which were notified during the year. The details are shown in the following tables.

ADMISSIONS, DEATHS AND DISCHARGES AT THE  
ESTCOURT ROAD HOSPITAL.

	Scarlet Fever.	Enteric Fever.	Diphtheria	Diphtheria "Contacts."	Total.
Remaining on					
January 1st, 1905	14	6	—	—	20
Admitted during 1905	83	16	18	3	120
Died in Hospital	1	1	1	—	3
Discharged	86	17	11	3	117
Remaining on					
December 31st, 1905	10	4	6	—	20

ADMISSIONS INTO THE ESTCOURT ROAD HOSPITAL  
IN EACH MONTH OF 1905.

	Scarlet Fever.	Enteric Fever.	Diphtheria.	Diphtheria "Contacts"	Total.
January ..	8	—	—	—	8
February ..	8	—	1	—	9
March ..	15	—	4	3	22
April ..	6	3	—	—	9
May ..	1	1	1	—	3
June ..	2	—	—	—	2
July ..	*1	—	—	—	*1
August ..	2	3	1	—	6
September ..	15	1	1	—	17
October ..	16	5	—	—	21
November ..	4	1	9	—	14
December ..	5	2	1	—	8
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Totals	83	16	18	3	120

\*Excluding a patient who was kept under observation for suspected Scarlet Fever.



The average period of detention in Hospital for each case completed during the year 1905 was :—

For Scarlet Fever	..	56.9 days.
For Diphtheria ..	..	33.7 days.
For Diphtheria "Contacts"...		22.7 days.
For Typhoid Fever	..	54.8 days.

The number of patients removed to the Hospital in proportion to the number of notified cases of the different infectious diseases was :—

For Scarlet Fever	- 81 out of 114, or a percentage of 71.0
For Diphtheria	- 18 out of 33, or a percentage of 54.5
	(This excludes three "contacts" isolated in Hospital).
For Typhoid Fever	- 16 out of 38, or a percentage of 42.1

#### DISINFECTION.

The following articles were passed through the steam disinfectant at the Hospital :—

Beds	146	Counterpanes	193
Pillows	395	Mattresses	79
Bolsters	101	Clothing	1160
Slips	352	Carpets	108
Sheets	235	Rugs	40
Hangings	8	Cushions	6
Blankets	324	Various	207
			<hr/>
		Total ..	3354
			<hr/>

203 Rooms were disinfected with Formalin vapour.

#### BACTERIOLOGICAL WORK.

The Bacteriological Laboratory at the Isolation Hospital was in frequent use, more especially in connection with cases of Diphtheria. No patients were discharged from the Isolation Hospital unless they had

been examined three times for the presence of Diphtheria Bacilli with negative results.

In addition, a large number of "swabs" were examined for patients, who were not in the Hospital, either for the purpose of settling doubtful diagnosis, or in order to ascertain when the patients were fit for discharge from isolation in their own homes.

Three examinations for Diphtheria Bacilli were made in connection with patients admitted into the Isolation Hospital for Scarlet Fever, but presenting additional symptoms suggestive of Diphtheria.

The results of investigations for Diphtheria Bacilli in the Laboratory were as follows :—

	In cases of Diphtheria.	In "contacts" of Diphtheria Patients.	In Scarlet Fever Patients.	Totals.
Bacilli found	58	8	—	66
Bacilli not found	102	26	3	131
	—	—	—	—
Totals	160	34	3	197
	—	—	—	—

It should be noted that the figures do not refer to separate patients, but to the number of separate examinations, some of the patients being examined many times before they were found fit for discharge from isolation.



## Sanitary Administration in 1905.

The Report of the Sanitary Inspector (Mr. Hassall) shows the number of inspections made by himself and the District Inspectors. During the year one of the District Inspectors unfortunately contracted Typhoid Fever in the course of his work, so that the department was short handed for some weeks, but the number of inspections is above the average.

### BAKEHOUSES.

There are 86 bakehouses in the Borough, but none come under the heading of "underground bakehouses." The majority are situated in positions which allow free access of light and air.

### SLAUGHTER-HOUSES.

Twenty-four recognised slaughter-houses are in use. With six exceptions all are situated to the west of the Market Place, just outside the old town wall. As the town has extended outside the walls, the present position of the slaughter-houses is most unsuitable and the question of the provision of a public abattoir has been under consideration since 1885. In 1900 plans were submitted to the Local Government Board and permission obtained for the construction of an abattoir on the Caister Road, but the matter is at present in abeyance.

### DAIRIES, MILK SHOPS, & COWSHEDS.

There are 94 registered milk shops, the premises varying from shops specially constructed and furnished for the business, to the most unsuitable premises, such as small general shops where the milk is constantly exposed to the effluvia and dust arising from the other goods.

Most of the milk sold in the Borough is obtained from other districts, more especially in the summer, but there were 12 cowsheds on the register in 1905. Overcrowding was discovered and remedied in four cowsheds, The premises in two cases were very unsuitable and were closed.

#### ADMINISTRATION OF THE FOOD & DRUGS ACTS.

One hundred samples were taken during 1905, and submitted to the Public Analyst for examination. Of this number, 76 were samples of milk, 13 were samples of butter, and 11 were samples of various food stuffs and condiments.

Twenty of the samples of milk, more than a quarter of the total number, were certified to be other than pure milk; of these 15 were impoverished by the abstraction of cream or by the addition of water, and the remaining 5 were adulterated by the addition of antiseptics, such as Boric Acid or Formalin.

Letters of caution were sent to the vendors of samples adulterated by Boric Acid, and in the cases where the abstraction of cream, or the addition of water did not appear to indicate very gross adulteration. The vendor of a sample of milk containing Formalin was fined £2 and £1 15s. 6d. costs.

Eleven vendors of impoverished milk were prosecuted, with the result that 10 were convicted and fined amounts varying from £5 to 10s., with costs in addition, averaging £1 16s. 6d. a case.

The amount of adulteration which goes on in the Borough is still excessive, but the tendency to increase the fines in cases where the offence is proved, will make the practice less profitable than it is at the present time.



The following table shows the number of samples of articles purchased and submitted for examination, with the results of analysis :—

Article.	No. of Samples taken.	Result of Analysis.	
		Genuine.	Adulterated.
Milk ...	76	56	20
Butter ...	13	12	1
Malt Vinegar	2	2	0
Demarara Sugar	2	2	0
Ice Cream ...	2	2	0
Bread ...	1	1	0
Flour ...	1	1	0
Coffee ...	1	1	0
Lard ...	1	1	0
Cayenne Pepper	1	1	0
	—	—	—
Totals	100	79	21

The details of the adulteration found in the samples of milk, with the results of magisterial or other proceedings, are as follows :—

1. 23 per cent. of added water	Fined £1 and £1 15s. 6d. costs.
2. 7 per cent. entirely devoid of fat	Cautioned by letter from the Town Clerk.
3. 7 per cent. entirely devoid of fat	Cautioned by letter from the Town Clerk.
4. 15 per cent. entirely devoid of fat	Case dismissed.
5. Contained 5.4 grains per pint of Boric Acid	Cautioned by letter from the Town Clerk.
6. Contained 5.5 grains per pint of Boric Acid	Cautioned by letter from the Town Clerk.
7. .004 per cent of Formaldehyde	Case withdrawn.
8. 10.25 per cent. of added water	Fined £2 and £2 2s. 6d. costs.
9. 4 per cent. entirely devoid of fat	Cautioned by letter from the Town Clerk.
10. 26 per cent. of added water	Fined £5 and £1 16s. 6d. costs.
11. 5½ per cent. of added water	Fined 10s. and £1 15s. 6d. costs.

12.	Contained 8 grains per pint of Boric Acid	Cautioned by letter from the Town Clerk.
13.	20 per cent. of added water	Fined £1 and £1 18s. 6d. costs.
14.	11 per cent. of added water	Fined 10s. and £1 15s. 6d. costs.
15.	.006 per cent of Formaldehyde	Fined £2 and £1 15s. 6d. costs.
16.	1½ per cent. of added water	Cautioned by letter from the Town Clerk.
17.	39 per cent. of fat extracted and 12 per cent. of water added	Fined £1 and £1 15s. 6d. costs.
18.	24.3 per cent. of added water	Fined £1 and £1 15s. 6d. costs.
19.	70 per cent. of fat extracted	Fined £1 and £1 15s. 6d. costs.
20.	63 per cent. of fat extracted	Fined £1 and £1 15s. 6d. costs.

Only one other article was found to be adulterated, a sample of Butter, which contained 15 per cent. of foreign fat; no action was taken in this case.

### UNSOUND OR UNWHOLESOME FOOD SEIZED IN 1905.

20 lbs. of Strawberries; 25 lbs. of Plums and three bottles of Mushroom Ketchup, all exposed for sale in the Market Place, were seized and condemned.

The Fish Inspector seized over seven tons of Fish at the Wharf, during 1905. The fish were destroyed after being formally surrendered by the owners. The particulars of the seizures are as follows:—

Date.	Description.	Estimated weight. Tons. cwts. qrs.
Mar. 17	16 baskets of Norway herrings	8 0
„ 23	1 bag of winkles	... 1 0
Jun. 12	5 trunks of Mackerel	... 2 2
Oct. 26	5 swills of Herrings	... 10 0
„ 26	17 ditto	... 1 14 0
„ 29	4 ditto	... 8 0
Nov. 10	24 ditto	... 2 8 0
„ 11	9 ditto	... 18 0
Dec. 8	8 ditto	... 16 0
	Total	... 7 5 2



## COMMON LODGING HOUSES.

There are seven common lodging houses on the register. Most of these houses are merely ordinary houses in the Rows, which cannot be regarded as suitable for their present purposes. Two hundred and thirty visits (106 at night) were paid to these houses, and the premises and bedding are kept fairly clean, but there appears to be no public demand for the superior accommodation which can be found in the average large town.

## SYSTEMATIC INSPECTION OF THE BOROUGH.

In addition to the premises inspected on account of special complaints by householders and others, 2014 houses were inspected in the course of the systematic house-to-house visitation. Up to the last few years the systematic visitation was principally confined to the Rows and the older parts of the Borough, but house-to-house inspections of the streets outside the old walls have revealed many examples of inefficient sanitary arrangements in comparatively modern houses. This is most important work, as it results in the discovery of sanitary defects which would otherwise escape notice until definite sickness or nuisance has attracted attention to the defects.

THE FLOODING CAUSED BY THE HIGH TIDE  
OF JANUARY 7th, 1905.

A spring tide, exceptional both in its height and duration\* occurred on January 7th, 1905, which resulted in the flooding of 518 houses in the Borough; of these,

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\*This tide may not be the highest on record, as far as the measurement at the harbour's mouth may be taken as a guide, it only registered 12 ft. 3 in., while the highest noted tide is 13 ft. 1 in., but that was of a short duration. That of the 7th held up for a longer period than any tide in my experience, the water pouring into the harbour without cessation for about 20 hours, filling all Breydon and all the Bure to a point higher than any which it had previously reached, the height at the Bridge being 9 ft. 10½ in., and above this point the water was higher by some three or four inches than it has ever been.—*Borough Surveyor's Report, Jan. 16th, 1905.*



333 houses were situated in Southtown and Cobholm, 65 in the Northern District, 67 in the Southern District, and 53 in Gorleston.

All these houses were inspected and 192 preliminary notices were served on the respective owners, requesting them to remove the flooring, dry the underfloor spaces after the necessary cleansing, and concrete the surface of the soil, if this had not been done on a previous occasion.

The terms of the notices were fully carried out in 245 houses, the surface of the concrete being laid with a fall to catchpits with trap-doors in the flooring over them. This was done so that, in the unlikely event of future flooding, the occupiers would be able to cleanse the underfloor spaces, and empty the catchpits through the trap-doors, without being under the necessity of removing the whole of the flooring.

Of the remaining houses, 15 have been demolished, and over 150 have been restored to the condition in which they were previous to the flooding.

No exceptional prevalence of disease or sickness was noticed in the houses which had been flooded, in fact the general mortality has been less than the average.

A Special Committee was appointed to inspect the quays and banks, with a view to preventing future flooding with a tide of 12 ft. 6 ins. above the gauge zero. This is a most exceptional occurrence, as the Haven gauge readings show that the tide has not risen 11 ft. above zero more than five times during the last twenty years. The recent tide of 11 ft. 3 in. on March 12th, 1906, caused no damage by flooding with the exception of a few buildings on the edge of the river.



The most important provision against the flooding of dwelling houses is contained in the Corporation Act of 1904. In Clause 54 of that Act, "the Corporation may by order prohibit the construction of any cellar, or ground floor, in any dwelling house, or other building, in which it shall be proposed to place the floor of such cellar or ground floor at a lower level than eight feet above ordnance datum." If this regulation had been in force during the development of Southtown and Cobholm, the houses in these districts would not have been flooded even by the record tide of 1905.

# Report on Sanitary Work.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I have the honour to submit to you my Eleventh Annual Report of the work carried out in the above department during the year 1905. Particulars as to the nature and number of nuisances reported to the Health Committee, and dealt with by Statutory notices, also works of a similar nature, but dealt with by Preliminary notices.

I am, Sir,

Yours faithfully,

SAMUEL HASSALL.

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## REPORT FOR 1905.

### TABLE A.

	Number of Visits.
Special inspections and investigations of complaints ... ..	2128
House to house inspections ... ..	2014
Visits in connection with infectious disease	158
Re-inspections to ascertain the progress of Statutory and Preliminary notices ...	5092
Bakehouses ... ..	365
Common lodging-houses (day-time) ...	124
"    "    "    (night-time) ...	106
Slaughter-houses and knacker yards ...	260
Offensive trades ... ..	144
Ice cream vendors ... ..	136
Marine stores ... ..	64
Factories and workshops ... ..	350
Restaurants ... ..	36
Total ... ..	<u>10,977</u>



	Number.
Samples of well-water collected and forwarded to Cambridge for analysis ...	21
Samples of Food, etc., purchased under the Sale of Food and Drugs Acts, and submitted to the Public Analyst at Norwich ... ..	100
Rooms disinfected after infectious disease	203
School notices sent in connection with infectious disease ... ..	214
Houses, schools, and workshops at which the smoke, water, or chemical tests have been applied to the drains ...	239
Prosecutions under the Sale of Food and Drugs Acts ... ..	12
Smoke observations taken ... ..	8

TABLE B.

During the year the following works have been carried out under Statutory and Preliminary notices:—

	Number.
Privies replaced with water closets ...	254
New drains laid ... ..	112
Drains cleared and repaired ... ..	214
Pan-container closets abolished ...	27
Pedestal closets provided ... ..	83
Earthenware gully-traps fixed ...	624
Flushing cisterns fixed to closets ...	120
Filthy houses cleansed and limewashed	51
Offensive accumulations removed ...	57
Nuisances from overcrowding abated ...	7
Animals and poultry removed ...	33
Cesspools abolished ... ..	2
Water closets repaired ... ..	80
New sinks erected ... ..	145
Drains intercepted from sewers ...	126
Rainwater cisterns abolished ...	89
Sink waste pipes disconnected ...	86
Yards and passages concreted ...	312

	Number.
Drains ventilated ... ..	164
Spouting and fall pipes provided ...	166
Cowsheds and slaughter-houses limewashed	6
Bakehouses limewashed ... ..	56
Houses provided with Company's water	49
Polluted wells closed ... ..	32
Houses made fit for human habitation ..	11
Rain-water pipes disconnected from drains	94
Dilapidations made good ... ..	76
New urinals provided ... ..	24
Under floor spaces ventilated ...	361
Dust bins provided ... ..	67
Dykes cleansed ... ..	4
Damp courses inserted in walls ...	6
Nuisance from overcrowding of cowsheds abated ... ..	4
Flooding notices (to cleanse, concrete and ventilate the under floor spaces) ...	245
Miscellaneous items ... ..	66

TABLE C.

Showing the localities of sewer gas escapes discovered by drain testing :—

Into Breakfast rooms, etc. ... ..	3
„ Kitchens and sculleries ... ..	9
„ Basement kitchens and cellars ...	1
„ Lobbies and other parts of houses ...	2
„ Internal water-closets ... ..	2
„ External water-closets ... ..	4
„ Yards and passages ... ..	5
From defective w.c. soil pipes ...	5
„ defective ventilating shafts ...	8
„ heads and joints of rain water pipes	17
„ around yard gullies ... ..	5
„ defective drain connections ...	48
	<hr/>
	109
	<hr/>



## DRAIN TESTING.

During the year 275 complaints have been received from householders and others, respecting the condition of drains and sanitary fittings of houses and other premises. An examination, and if necessary a smoke test was made in every instance, and this resulted in the detection of 83 defective drains, etc., The necessary notices were served in the usual course, and in every instance the terms of the notices were complied with and the work executed. The drains have also been tested in connection with all houses where cases of Typhoid and Diphtheria have occurred.

## FACTORY AND WORKSHOPS INSPECTION.

Premises.	Inspections.	Written Notices.	Prosecutions.
Factories, including factory laundries ... ..	46	9	—
Workshops, including workshop laundries and fish curers ... ..	204	36	—
Work-places ... ..	64	—	—
Home-workers' premises ...	36	12	—
	<hr/>	<hr/>	<hr/>
Total ... ..	350	57	Nil.
	<hr/>	<hr/>	<hr/>

## DEFECTS FOUND.

Particulars.	NUMBER OF DEFECTS.		
	Found.	Remedied.	Number of Prosecutions
Want of cleanliness ...	10	9	—
Want of ventilation ...	4	4	—
Want of drainage of floors	5	5	—
Other nuisances ...	3	3	—

DEFECTS FOUND—*continued.*

		NUMBER OF DEFECTS.		
		Found.	Remedied.	Number of Prosecutions.
Sanitary Accommodation	{ Insufficient	22	20	—
	{ Defective	16	16	—
	{ Not separate	12	12	—
		—	—	—
Total ...		72	69	Nil.
		—	—	—

## HOME WORK:—

Lists received ...	6	Out workers ...	57
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NUMBER OF WORKSHOPS, &C., ON THE REGISTER  
AT THE END OF THE YEAR, 1905.

Description	Number.
Bakehouses ...	86
Baking-powder makers ...	2
Bedding manufacturers ...	2
Boat builders ...	5
Bottling store ...	1
Blacksmiths ...	12
Builders ...	2
Basket makers ...	4
Bone boilers ...	1
Carpenters ...	11
Confectioners ...	7
Coopers ...	3
Carriage builders ...	2
Cabinet makers ...	5
Cycle engineers ...	5
Cork cutters ...	2
Dressmakers ...	42
Fish curers ...	31
Foundries ...	2



		Number.
Hairdressers	...	2
Lock and tinsmiths	...	8
Laundries	...	1
Milliners	...	13
Marine Stores	...	5
Net makers	...	24
Outfitters	...	1
Oilskin manufacturers	...	4
Picture framers	...	1
Plumbers and painters	...	4
Ropemakers	...	1
Scale makers	...	1
Sailmakers	...	2
Tailors	...	26
Tripe dressers	...	1
Whitesmiths	...	2
Wood turners	...	1
Wheelwrights	...	3
Shoemakers	...	53
		<hr/>
	Total	...
		378
		<hr/>

## Port Sanitary Work.

The Sanitary Administration of the Port of Great Yarmouth is carried out by the Health Committee of the Corporation, with the assistance of the Medical Officer of Health of the Borough, and a special Sanitary Inspector who devotes the greater part of his time to this work, although he is also Inspector of Fish at the Fish-wharf and Inspector under the Canal Boats Acts.

The Collector of Customs kindly supplies the following information as to the traffic of the Port :—

No. of vessels arriving in the Port.				Gross Tonnage.				No. of Crews*	
FOREIGN.		COASTWISE.		FOREIGN.		COASTWISE.		Foreign.	British.
Sail.	Steam.	Sail.	Steam.	Sail.	Steam.	Sail.	Steam.		
249	162	454	871	31,742	50,154	38,139	112,708	2,853	6,485

Estimates only\*

The majority of the vessels arriving from foreign were laden with timber from the Baltic, or were comparatively small steamers from Hamburg and the adjacent German Ports, but there was also a certain amount of traffic in salt and phosphates from Sicily and Algeria, with an occasional arrival from South America and other distant ports.

Very few of the vessels entering the Port carry a surgeon, but the Custom Authorities, Coastguards and Pilots are always ready to render assistance in giving information as to vessels with any sickness on board, and as all boats from foreign have to pick up a pilot before entering the Haven, any suspected vessels are detained for inspection outside the Haven in the Roads.



Twenty deaths were registered in the Port in 1905. Of these, ten were non-residents, one was an unknown man and one was a resident in the Borough, who died on a lightship in the North Sea; the deaths of all residents, with the death on the lightship and also the unknown man, are included in the statistics for the Borough.

An inquest was held on every death registered in the Port during 1905, with one exception, the cause of the deaths being returned as due to drowning in 14 cases (three suicidal), accidental falls in two cases and various forms of heart disease in four cases.

During the year, eleven vessels were specially visited by the Medical Officer on account of sickness on board. No cases of Infectious disease were discovered on board boats from "foreign"

Four Scotch fishermen, suffering from Typhoid Fever, were removed to hospital from fishing boats in the Haven. No further cases resulted, and on enquiry it was found that these men had contracted the disease before entering the Haven, as a result of drinking infected water in a Scotch port. One fisherman, also a Scotchman, was found to be suffering from Scarlet Fever, probably contracted in the Borough. He was removed to the hospital and no further cases resulted.

During the month of May, a Scotch port was regarded as infected by Plague, but only one ship arrived from that port and on inspection the crew were found all well and no dead rats were reported.

A special Sub-Committee was appointed to take immediate action in the event of cholera arising in the Haven and arrangements were made for a mooring

station for suspected or infected vessels in the Roads, and for the isolation of any cases of cholera, which might arise; fortunately no boats arrived which could be reasonably regarded as sailing from an infected port.

**Inspections made in 1905.** The number of vessels inspected upon entering the Port was as follows:

Vessels from Foreign Ports	..	280
Vessels Coastwise ..	..	207
		—
	Total	487
		—

These vessels were of the following Nationalities:—

British	..	242
Norwegian	..	84
Swedish	..	53
German	..	33
Dutch	..	23
Russian	..	19
Danish	..	17
French	..	9
Belgian	..	5
Italian	..	2

Of the above vessels 312 were steamers, and 175 were sailing vessels.

The sanitary conditions were found satisfactory on board 441 of the above vessels, and the following list shows the nature of defects found on board the remaining 46 vessels:

Dirty forecastles	..	29
Forecastles requiring re-painting or limewashing	..	3
Sanitary repairs necessary	..	2
Defects in ventilation	..	2



Filthy W.C.'s	..	..	5
Foul water casks	..	..	3
Foul ships' holds	..	..	4
Unwholesome beef (55 pieces weighing about 2½ cwt.		..	2
			<hr/>
Total	..		50
			<hr/>

These defects necessitated re-inspection in most cases.

BILGE PUMPING FROM FISHING VESSELS.—Two vessels were reported for this offence, and letters of caution were addressed to the offending skippers by the Town Clerk.

## Annual Report of the Canal Boats Inspector for the Year, 1905.

During the year, I inspected 51 vessels under this heading, and am pleased to say that in only one instance have I had to report upon a sanitary defect, that being a cabin requiring repainting. I wrote the owner about the matter and learnt that the vessel was shortly undergoing repairs and repainting throughout.

The infringements of the Canal Boats Acts, other than sanitary matters, were as follows :—

Non-registration	..	1
Masters without certificates		1
Boats not duly marked	..	5

The total number of vessels now registered under the Canal Boats Acts by this authority is 57 ; there having been no fresh applications for registration during the year ; as I stated in last year's report, many of the vessels are now registered by the Board of Trade.

No sickness has occurred on board any of the canal boats during the year.

In conclusion I desire to repeat that the sanitary condition of our local river craft is well maintained, and is exceedingly creditable to the men working them.



