**[Report 1875] / Medical Officer of Health and Port Medical Officer of Health, Great Yarmouth Borough.**

# REPORT

ON THE

# HEALTH OF THE BOROUGH

OF

# GREAT YARMOUTH,

FOR THE YEAR 1875.

BY

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*TO THE GREAT YARMOUTH URBAN SANITARY AUTHORITY.*

GENTLEMEN,

I beg to present you with my first Annual Report.

Its meagreness, which you cannot fail to recognise, is accounted for by Dr. HUBERT AIRY, of the Local Government Board, having recently visited Yarmouth, and so exhaustively reported upon its Sanitary condition, that no material is left me save certain dry statistics, which I will endeavour to make as interesting as they will allow. In doing so, I propose to direct your attention to the numbers of Births and Deaths registered within the Borough during 1875; to the increase of the population; to some particulars relative to the deaths due to Zymotic causes; and to a few suggestions for Sanitary improvements, which I submit for your consideration during the ensuing year.

## POPULATION.

I estimate the present population of the Borough to be 45,000.

The Registrar General credits us with 47,123, including however in these figures, at least 2,000 souls not within the Borough, but living in Bradwell, Belton, Burgh, Fritton, and Hopton, which parishes, together with Gorleston and Southtown, form the Gorleston Registration Sub-district.

Dr. AIRY, in his Report, gives 44,500 as the population last year. Believing 45,000 more nearly correct, I have

adopted that figure and apportioned to each of the three Districts the numbers beneath their names in the table below.

## BIRTHS & DEATHS.

During the year 1875, there were registered by the three Registrars within the Borough, 1,434 Births and 1,036 Deaths, thereby increasing the population by 398 souls.

The Birth Rate thus indicated is 31·8 per thousand, the Death Rate 23·02, and the rate of increase 8·7.

The annexed Diagram exhibits the weekly Death Rate throughout the year, and the subjoined Table gives further particulars.

QUARTERLY RETURNS OF BIRTHS AND DEATHS.

| | BIRTHS. | | | | | | DEATHS. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Quarters ending in 1875. | | | | | | Quarters ending in 1875. | | | | | |
| DISTRICT. | 31st March. | 30th June. | 30th Sept. | 31st Dec. | TOTAL. | Per 1,000. | 31st March. | 30th June. | 30th Sept. | 31st Dec. | TOTAL. | Per 1,000. |
| NORTHERN .... Est. Pop. 20,500 | 146 | 166 | 164 | 144 | 620 | 30·24 | 159 | 97 | 141 | 137 | 534 | 26·04 |
| SOUTHERN .... Est. Pop. 16,500 | 133 | 127 | 136 | 134 | 530 | 32·12 | 105 | 70 | 118 | 74 | 367 | 22·24 |
| GORLESTON & SOUTHTOWN. Est. Pop. 8,000 | 72 | 76 | 72 | 64 | 284 | 35·5 | 22 | 36 | 42 | 35 | 135 | 16·8 |

The rate of increase in each of the three Districts stands thus:—In the Northern 4·2 per thousand, in the Southern 9·8, and in Gorleston and Southtown 18·7.

The heavy Death rate in the Northern District includes 63 deaths at the Workhouse and 16 inquests. That in the Southern is burdened with 9 deaths at the Public

Hospital, 20 inquests, and 36 deaths at the Naval Asylum, which latter do not rightly belong to the Town, but are of men belonging to the Royal Navy. In Gorleston there were 6 inquests.

## ZYMOTIC DEATHS.

The class of diseases which Sanitary efforts strive to eradicate is the Zymotic.

Many other diseases are modified by good healthy arrangements, but Fevers more especially are prevented or restricted in their spread, by Sanitary work. Success in this work has not been so evident as one could have wished, but undoubtedly had no work at all been done, a much larger mortality from Zymotic causes would have been recorded.

The year opened with an epidemic of SCARLET FEVER in the Town, and ended it similarily, although for the long interval of six months, not a death from this Disease was registered in the whole Borough.

Ten deaths from Scarlet Fever occurred during January, February and March. No others happened until the 3rd of September, from which date to the 31st of December thirty one deaths were caused by this disease, making in all 41 deaths during the year.

The period of apparent freedom during the Spring and Summer months was somewhat delusive, for although no deaths occurred, the sickness from Scarlet Fever continued. Several Medical men informed me during that time, of Scarlet Fever illnesses among residents, as well as visitors. Many of the cases among residents evidently derived their infection from the previous winter epidemic, because they occurred before the visitors arrived, and were located in business portions of the Town, where visitors are not

received as lodgers. But many more probably obtained it from the visitors, for I am assured several brought the fever with them either in its early or later stages. Those just falling ill with the disease, having contracted it immediately before leaving home, came under the care of one or other of our Yarmouth Medical men, who, I am happy to state, took every precaution to arrest its spread; but many convalescent scarlet fever patients come to the sea-side in their most infectious condition, viz., *when recovering from the fever.* Patients getting well of scarlet fever are, on account of the "dust" or "peeling" from their skins, far more dangerous than those in whom the fever is just making its appearance.

In order to prevent the importation of infectious disease, all lodging houses should be registered, placed under direct sanitary supervision, and the occupiers required to give immediate notice to the Medical Officer of Health of the occurrence of Fever in their houses.

One of the most powerful means by which the infection was disseminated, was by the incautious collecting in schools of children from infected homes, with those not so afflicted.

Other vehicles of communicating Scarlet Fever were found to be persons engaged in trade; for instance, millers, milkmen, grocers, laundresses, drapers, tailors, dressmakers, pawnbrokers, and others.

Every house infected with Fever was visited by one or other of the Inspectors of Nuisances, and disinfection was rigorously enforced.

Of the 41 deaths, the year's total of Scarlet Fever; 25 deaths occurred in the Northern district, 15 in the Southern, and one in Southtown.

Throughout the year DIARRHŒA was prevalent in the

town, killing in the aggregate 118 persons. The number of deaths resulting from this disease during the four quarters of the year, in each of the three registration districts, are as under—

| | North District | South District | Gorles. District | Total. |
|---|---|---|---|---|
| 1st Quarter... | 2 | 0 | 0 | 2 |
| 2nd ditto..... | 10 | 4 | 0 | 14 |
| 3rd ditto..... | 45 | 36 | 5 | 86 |
| 4th ditto..... | 10 | 5 | 1 | 16 |
| | 67 | 45 | 6 | 118 |

The large number of Diarrhœa deaths in the third quarter, induced the Registrar General to make the following observations in his report. "The death rate from "this disease was 3·0 in Brighton and in Hove (against 2·5 "in London), whereas it was 7·3 in Yarmouth. The popu- "lation of Brighton and Hove is estimated at 111,089, while "that of Yarmouth is but 47,123, Sanitary condition being "equal, the death rate from Diarrhœa should therefore be "higher in Brighton than in Yarmouth, on account of the "larger aggregation of population. Heat moreover being "about the only known controlling element of diarrhœal "fatality, this fatality should be higher in a South Coast "than in an East Coast watering place. What other cause "than essentially unfavourable sanitary conditions in "Yarmouth can account for its death rate from Diarrhœa "being 7·3 per 1000 last summer, and 4·3 per 1000 higher "than in Brighton.

"What is the treatment and food of infants in the "Diarrhœa-stricken towns? Is the fatal disease traceable "to any Zymotic poison in the dwellings, or in the "waters?"

Of the 118 deaths, at least 100 were of infants of one year and under, and 11 were of aged persons above 60.

Undoubtedly, the Registrar General is correct in suggesting the faulty nurturing of these infants as contributing to their deaths. In many instances their homes were dirty, dark and overcrowded, and alike offensive to sight and smell; besides which many were fed through unwholesome feeding bottles, with bad milk, mixed with water little better than sewage. Bad milk will of itself produce Diarrhœa, and much more so when mixed with some of the natural water of Yarmouth.

Several samples of milk have been analysed recently, and I here give the results. On May 3rd, 1874, Mr. F. A. Wanklyn, of London, found 30 and 35 per cent. of water respectively in two samples of milk sent him from Yarmouth. On June 22nd, 1874, Mr. F. Sutton, of Norwich, certified that a sample of milk then submitted to him, contained 20 per cent. of water, again on November 28th, 1874, the same gentleman examined some milk which had been supplied to a Public Institution in Yarmouth, for the use of its inmates, and stated it contained about 30 per cent. of water, and was "deficient in nutritious matters, especially "for children or invalids." Also on May 24th, 1875, Mr. Sutton found 10 to 12 per cent. of water in six samples of milk, and 20 per cent. of water in two other samples, all of which were obtained from Dairymen in Yarmouth and Gorleston. It is very evident that liquid of such a character as the milks above mentioned, cannot afford a food sufficiently nutritious for healthy infant life.

An intensely hot summer will unquestionably increase the Diarrhœa deaths, but this cause had very limited operation last year. Comparison of the two previous years with last year will render this evident.

1873, Mean Temperature 60°3″ Diarrhœa Death rate 6·5
1874, „ „ 60°9″ „ „ „ 2·1
1875, „ „ 60°7″ „ „ „ 7·3

It will be noticed that with a somewhat lower temperature last year, we had an increase in the Diarrhœa death rate of 5·2 per 1000 upon that of 1874.

Twenty deaths resulted from TYPHOID FEVER, of which one was in February, 1 in March, 2 in May, 1 in June, 3 in August, 4 in September, 6 in October, 1 in November, and 1 in December.

Many more deaths would in all probability have occurred, had it not been noticed that the Fever followed the track of a milkman, who had just recovered from Typhoid, and in whose neighbourhood, two Typhoid deaths had then recently occurred. Upon analysis, the water he made use of, was found to be contaminated with sewage, and quite unfit for drinking purposes. The immediate closing of this unwholesome well was ordered.

The table below contain the results of analyses of water from Yarmouth wells.

Typhoid Fever has hovered over the localities from which samples, No. 1, 2, and 3 were obtained.

| | Parts per 100,000 | | | |
|---|---|---|---|---|
| | (No. 1) | (No. 2) | (No. 3) | (No. 4) |
| Free Ammonia | 0·035 | 0·008 | 0·320 | 0·040 |
| Albuminoid Ammonia | 0·017 | 0·018 | 0·016 | 0·012 |
| Chlorine | 10·200 | 109·500 | 53·400 | 4·710 |
| Nitrates | Large | Large | Large | Moderate |
| Total Solid Matters | | 404·600 | 184·000 | |
| Natural hardness | | 33·6° | 32·4° | |

Many more analyses have been made, and the results are so similar, that the above may be taken as a fair sample of the natural waters of Yarmouth.

During my visitation of the Typhoid haunts, I noticed the water spouts on many of the houses, connected with the public sewer, without any trap to hinder the sewer gas ascending, and thus finding ready access, beneath the tiles and through open windows to the interior of the dwellings.

Very few of the soil pipes from the water closets are ventilated; they generally connect directly with the sewer and the only impediment to the free ingress of sewer gas is the thin stratum of water in the pan or trap. The pressure of sewer gas frequently overcomes this slight resistance, and fills the house with its poisonous vapour. A small 2 inch pipe let into the angle of the soil pipe, and carried 2 or 3 feet *above the roof*, would I believe allow of the free escape of sewer gas and prevent it finding its way into houses.

Several cases of Typhoid occurred in houses recently erected upon newly made ground; the unhealthy emanations from which were contributory causes of the disease. I would recommend that where houses *must* be built upon such ground, precautionary measures should be taken, such as covering the site with a thick coating of new lime, concrete, or asphalte, and setting the building up a sufficient height from the ground, so as to allow free circulation of air beneath the lower floors through ventilating bricks in the walls, &c.

Of the remaining deaths from Zymotic causes, WHOOPING COUGH is credited with 20; of these, 11 occurred in the first quarter, 2 in the second, 4 in the third, and 3 in the fourth.

DIPHTHERIA caused 4 deaths, CONTINUED FEVER 3, TYPHUS FEVER 1, and CHOLERAIC DIARRHŒA 1.

The total number of Zymotic Deaths was 208, and the Zymotic Death Rate was 4.6 per 1000, for the whole year.

In passing to the last portion of my report, I may briefly

mention, that during the last twelvemonth, the Sanitary Authority completed the Southtown Main Sewer, made a New Cemetery, and sewered and channelled Upper Cliff, Lower Cliff, Bell's, Nelson, Manby, and Alpha Roads, besides doing many works of lesser importance. Several hundred nuisances were abated by your Sanitary Officers; 180 were by legal action taken at your instance, by the Town Clerk, these included 33 notices to drain, 25 notices to provide pure water supply, and many for the removal of filth, &c.

I understand the Water Company is now supplying 4407 houses, to 294 of which the water was laid on last year.

The works now in progress, are the fixing of numerous ventilators to the Southern Sewer, the building of a permanent Infectious Diseases Hospital, a mortuary, and disinfecting chamber; the extension of the operations of the public nightmen to all parts of the Borough, and the daily removal of night soil, by barge, up the river.

## SANITARY SUGGESTIONS.

The sanitary improvements, I beg to submit for your consideration are;—

The supervision of the lodging houses.

The abatement of the slaughter house nuisance, and the erection of a properly appointed public abattior.

Reformation in the Privy system In the old parts of the town, where water closets cannot be conveniently introduced, the dilapidated privies should be reconstructed; their pits being paved with glazed earthenware, or stone, and their sides well plastered with cement, so as to make them impervious to moisture. Or the pail system might be adopted.

More public dust bins should be provided.

Many dilapidated dwellings in the rows, and other crowded parts of the Town, ought to be pulled down, their present rotten condition making them thoroughly unhealthy.

Additional ventilators to the northern sewer are needed.

The efficient sewering and draining of the Pier Marsh locality, and the complete extinction of the stagnant ditches there.

I beg to take this opportunity of thanking you for the courtesy, kindness, and support extended to me in the performance of my duties during the past year, and of acknowledging the willing and valuable aid which I have received from the officers generally.

I have the honor to remain,

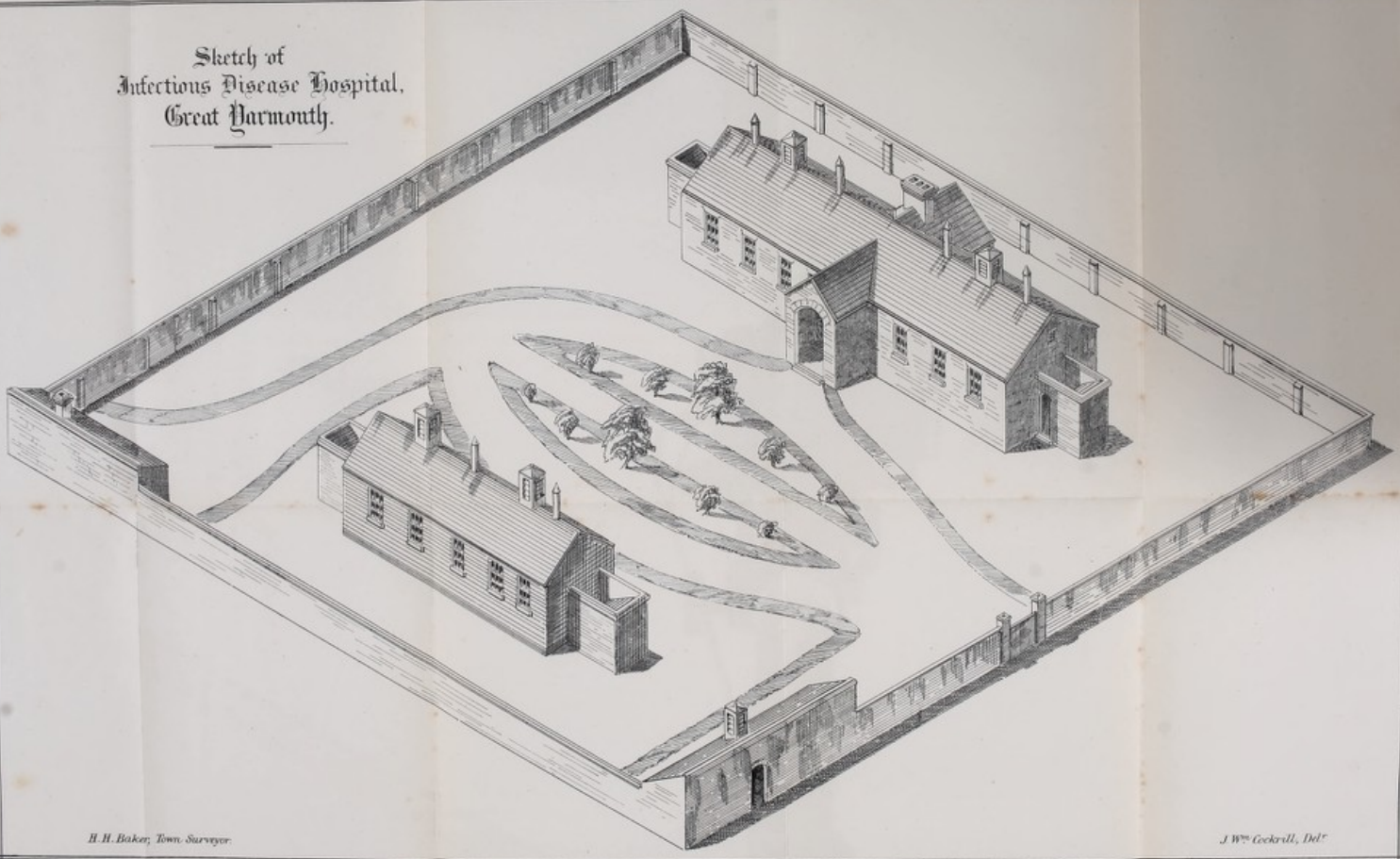
Your obedient Servant,

JOHN BATELY,

*Medical Officer of Health.*

COOPER AND SON, STEAM PRINTERS, GREAT YARMOUTH.

# Sketch of Infectious Disease Hospital, Great Yarmouth.



H. H. Baker, Town Surveyor.

J. Wm Cockrill, Del.