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County

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Middlesbrough.

HEALTH DEPARTMENT.

ANNUAL REPORTS

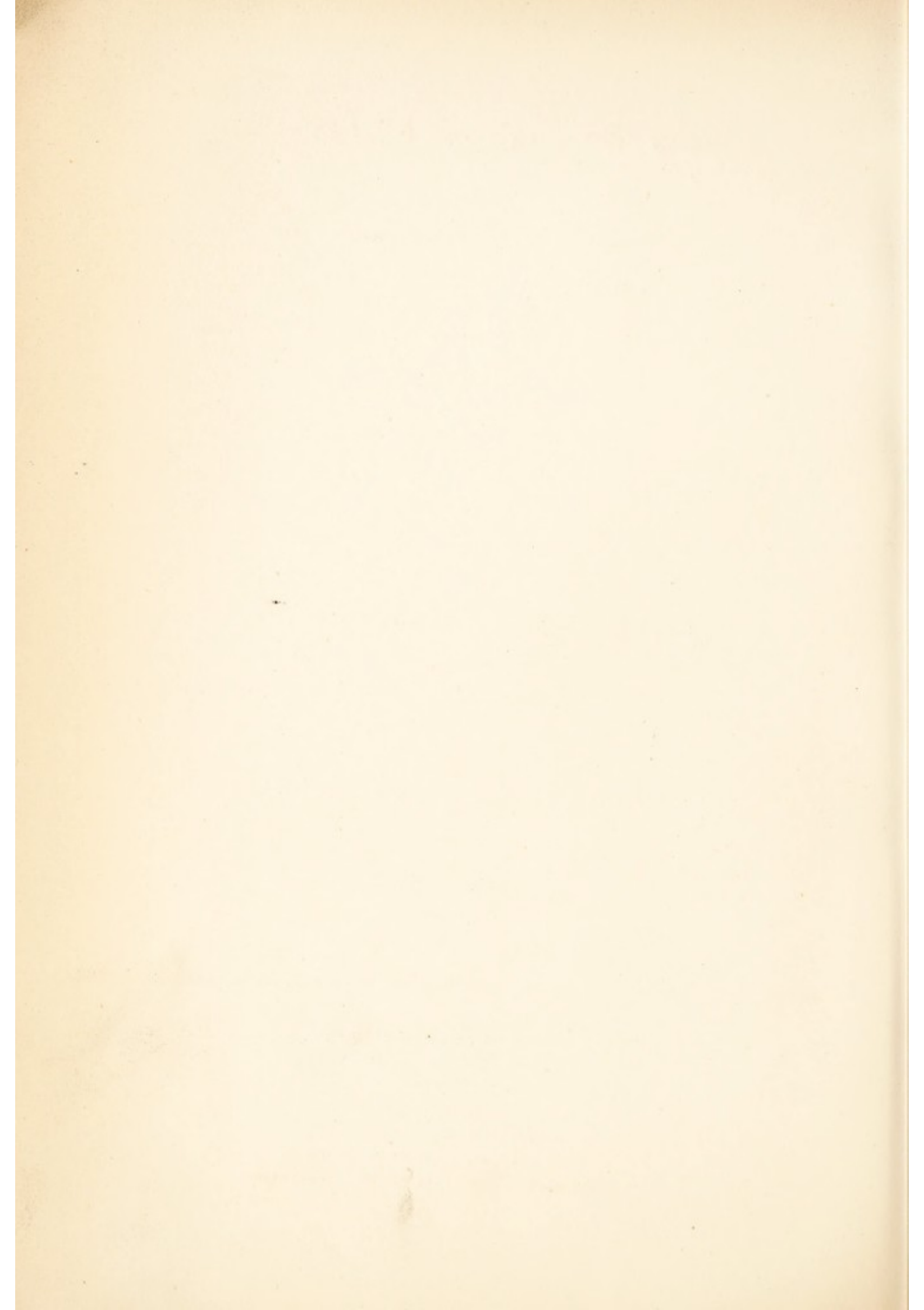
AND

Vital and Mortality
Statistics

for the Year 1909.

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1910.



County Borough of Middlesbrough.

Members of the Sanitary Committee, 1910.

Chairman—ALDERMAN SIR SAMUEL A. SADLER.

Vice-Chairman—ALDERMAN A. MATTISON.

HIS WORSHIP THE MAYOR (COUNCILLOR T. G. POOLE).

ALDERMAN W. J. BRUCE, J.P.

„ T. R. DENT.

„ J. FORBES.

COUNCILLOR G. CAREY.

„ E. CONE.

„ J. ROBINSON.

„ M. RODDY.

„ W. T. THOMSON.

„ E. TURNER.

„ W. J. PHILLIPS

Members of the Sanatorium Committee, 1910.

Chairman—ALDERMAN J. McLAUCHLAN, J.P.

HIS WORSHIP THE MAYOR (COUNCILLOR T. G. POOLE).

ALDERMAN J. FORBES.

„ J. HEDLEY, M.D.

COUNCILLOR J. BAINES.

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Hemlington Consumption Hospital—Committee of Management and Staff, 1909.

Chairman—ALDERMAN J. McLAUCHLAN, J.P.

HIS WORSHIP THE MAYOR (COUNCILLOR T. G. POOLE).

ALDERMAN J. FORBES.

„ J. HEDLEY, M.D.

COUNCILLOR T. B. DAVIES.

Nurse-in-Charge—Miss J. SYME.

Assistant Nurse—Miss M. CHARLTON.

OFFICIALS.

Medical Officer of Health and Superintendent of Fever Hospitals :

C. V. DINGLE, M.D., B.Hy., D.P.H.

Assistant Medical Officer of Health and Medical Inspector to the Education Committee :

R. J. EWART, M.D., F.R.C.S., D.P.H.

Chief Sanitary Inspector :

G. H. ANDERSON, MEM. R. SAN. INST., FEL. S. I. ASSOC.

Matron of Fever Hospitals :

MISS M. WEBB.

Assistant Sanitary Inspectors :

T. McDONALD.

H. WATSON, C.R.S.I.

A. W. LUCAS, C.R.S.I.

T. P. DIXON, C.R.S.I.

G. F. BULMER, C.R.S.I.

J. A. DODSWORTH (Probationary Insp.)

Health Visitors :

MRS. L. YOUNG, C.R.S.I.

MISS M. A. BLAKE, C.R.S.I.

School Nurses :

MISS G. THOMAS, C.R.S.I.


MISS E. M. WATSON.

Clerks :

J. W. RAWDON, T. A. BATTY, J. E. BLOODSWORTH.

Foreman Inspector of Scavengers :

G. STEVENSON.



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Annual Report of the Medical Officer of Health for the Year 1909.

To the Chairman and Members of the Sanitary Committee.

Gentlemen,

I have the honour to present for your consideration my Twelfth Annual Report upon the health of the Borough of Middlesbrough during the year ending December 31st, 1909.

During the year 1909 the death rate in England and Wales was 14.5 per 1,000 of the population, this being the lowest on record, and for the same period the death rate in this Borough was 19.4 per 1,000, being the lowest rate recorded since the year 1897.

The birth rate in the country has steadily declined since the year 1876, the rate for England and Wales last year being 25.6 per 1,000, a decrease of .9 per 1,000. In Middlesbrough, the birth rate for last year was 31.9 per 1,000, this being the lowest rate since the year 1896, and being 4.1 per 1,000 below the rate of the previous year.

It is owing to this decrease in the number of births, there being 370 less registered during 1909, that the mortality rates during the past year have shown an improvement, the average Infantile Mortality in this Borough being 177 per 1,000 births.

One of the reasons for a lower birth rate, both in the country as a whole and also to a slight extent in this town is that there has been a decrease in the marriage rate. The Registrar General of Births, Deaths and Marriages points out in his Annual Report that the age at marriage has an important bearing upon the subject, and that during recent years the mean age at marriage has steadily increased.

The past year has been notable for the number of New Acts and Regulations dealing with Health and Sanitation, which have either come, or are about to come in operation. The following being the most important of these, viz. :—

The Housing and Town Planning Act of 1909.

The Public Health (Tuberculosis) Regulations of 1908.

The Tuberculosis Order of 1909, and

The Children's Act of 1908.

In addition to the foregoing, great sanitary progress has been made locally by the adoption of the greater part of the Public Health Acts Amendment Act of 1907, by the insertion of many important Clauses dealing with the health and sanitation of the town in the proposed Middlesbrough Corporation Bill of 1910, and by the decision to provide a Public Cleansing Station.

The Housing and Town Planning Act.—The most important Clauses of this Act are those dealing with houses unfit for habitation or out of repair. The Local Authority is given power to prohibit the use of any dwelling-house which appears to be unfit for human habitation. Formerly this could only be done after obtaining a Magistrates' Order. Landlords are required to keep all houses reasonably fit for habitation, and the Local Authority may serve a Notice on them to execute such works as are considered to be necessary, any appeal against the above Orders must now be made to the Local Government Board. It shall not be lawful to erect back-to-back houses intended to be used as dwellings.

Town Planning is also largely a Public Health matter, and the Act gives Local Authorities power to prepare a scheme for the laying out of land for building purposes, with the object of securing proper sanitary conditions.

Causes of Death.—Reviewing those chief causes of death which usually show some considerable variation from year to year, we find that during the year 1909 there has been a decrease in deaths due to Zymotic Diseases, especially Diarrhœa, and an increase of deaths due to diseases of the Respiratory System, these causes, together with the mortality rate of Infants under one year of age per 1,000 births, are the main factors which regulate the rise and fall of the death rates in this Borough.

The decrease in Zymotic Diarrhœa, and the increase of Bronchitis and Pneumonia during the past year have, to a great extent, been due to the same cause, namely, the meteorological conditions experienced. In the records for a long series of years it is found that the rates of mortality are subject to wide fluctuations, and these are most marked in the third quarter of the year when Epidemic Diarrhœa among infants becomes most prevalent, an excessive rise in the Infantile Mortality rate in the third quarter corresponds with high summer temperature, especially if accompanied by deficient rainfall. The effects of temperature and rainfall must be considered together, frequent rain throughout the summer has an undoubted effect in checking the Infantile Diarrhœa death rate, whereas a cold, damp spring and autumn increase the mortality from Respiratory Diseases.

The only Zymotic Disease which showed an increase during the past year was Whooping Cough, and the high mortality from this disease can be attributed to exposure of infected children to unfavourable climatic conditions in the early stages of the disease.

Diphtheria decreased very considerably in its attack rate, but the mortality rate shows an increase. Many of the deaths from Diphtheria are due to delay in seeking medical treatment, parents too often suppose that the child is only suffering from a sore throat and do not obtain proper medical treatment until a fatal dose of the Diphtheritic Toxine has been absorbed into the system. The Corporation still continues to supply Antitoxine, free of charge, to those who are unable to obtain it, but this treatment will not save the life of the child if there has been undue delay.

Phthisis and Tubercular Diseases.—These caused an equal number of deaths during the past two years and are not on the increase, the death rate being 1.1 per 1,000 of the population from Phthisis, equal to the rate for the whole country and rather less than the rate in the Urban Counties.

The Public Health (Tuberculosis) Regulations, 1908, came into force on January 1st, 1909.

This Order directs that the Medical Officer of a Poor Law Institution, and also a District Medical Officer, shall within 48 hours after his first recognition of the symptoms of Pulmonary Tuberculosis post to the Medical Officer of Health a notification of the case. Notice of change of address of persons suffering from Pulmonary Tuberculosis is also to be given by Relieving Officers and Superintendents of Poor Law Institutions. By this order it is anticipated that all poor persons suffering from this disease will be kept under supervision, and that as many precautions as are possible will be taken to prevent the spread of the disease.

An attempt has been made by the means of printed instructions and personal visits to educate those suffering from Pulmonary Phthisis in the best methods of preserving their health and also that of those among whom they reside, proper appliances have also been provided for their use. So far, the results have been far from satisfactory, one of the greatest obstacles met with being the difficulty of finding the person notified at home when visited. There is also a constant change of address taking place, both from house to house and from house to the Union Infirmary and back again. Those affected appear to take very little interest in what is being done for them, and during the past year not a single application has been made for the renewal of the special spitting cups, handkerchiefs and disinfectants supplied free of any charge. It is found impossible to get anything like isolation of the infected persons in their homes, even to the extent of sleeping alone, and after removal or death it is not possible to effectively disinfect the house without temporarily removing the whole family. If any permanent good is to be done by the notification of Poor Law cases of Pulmonary Phthisis it will be necessary that isolation in the Union Infirmary or some other suitable Institution shall be compulsory. For the

second year in succession cases of Pulmonary Phthisis have been treated during the summer months in part of the Corporation Small-pox Hospital at Hemlington. Altogether 30 men received treatment. The improvement in these cases was not, on the whole, so satisfactory as that made by the cases the year before, still there can be no doubt that great benefit resulted both educationally and from the fact that such a large amount of infective sputum was banished from the town and destroyed. A full account of these cases will be found in an Appendix to this Report.

~~The Tuberculosis Order of 1909 which comes into operation on April 1st next, deals with this disease in animals, and more especially with dairy cows; it enacts that every person having in his possession or under his charge (1) any cow which is, or appears to be suffering from Tuberculosis of the udder, indurated udder or other chronic disease of the udder, or (2) any bovine animal which is or appears to be emaciated from Tuberculosis, shall, without avoidable delay, give information of the fact to a Constable of the Police Force for the area wherein the animal is, or to an Inspector of the Local Authority, and the Constable or Inspector shall transmit the information to the Local Authority, who, if not the Sanitary Authority, shall inform that Authority.~~

~~The Local Authority shall cause a Veterinary examination of such animals, and where satisfied by report that there is such an animal in their district, they shall give notice in writing to the owner or person in charge of the animal and cause the animal to be slaughtered.~~

~~Before the slaughter of an animal the Local Authority shall either agree in writing with the owner of the animal the value thereof in its condition at the time of valuation, or if they shall fail so to agree shall cause such value to be ascertained by a valuer appointed by them. The compensation paid by the Local Authority to the owner varies from one-quarter to the whole of the sum arrived at as the value of the animal, according to the amount of disease found. Other sections of the Order deal with the isolation of suspected animals, cleansing and disinfection of premises, and precautions to be adopted with respect to milk from diseased animals.~~

~~This Order is of far-reaching importance, since it protects two of the chief food supplies, namely, Milk and Meat, and if carried out strictly it should result in the abolition from this country of tubercular infected animals. It will also simplify the duties of meat inspection, since tubercular animals will be examined before they are slaughtered, and, consequently, before any special dressing of the meat, with a view to hiding its diseased condition, can be made. Rural districts, especially those in which there are large dairy farms, will find the expense of compensation heavy until the diseased animals are weeded out. The expense will not fall heavily upon Urban districts.~~

Order withdrawn.

The Children's Act of 1908 came into force on April 1st, 1909. By Section 122 of this Act the Local Education Authority may direct their Medical Officer to examine in any Public Elementary School the person and clothing of any child, and if found infected with vermin or in a foul or filthy condition may give notice to the parent or guardian to properly cleanse the person and clothing of the child within 24 hours. If this notice is not complied with, the Medical Officer may remove the child referred to and cause the person and clothing to be properly cleansed in suitable premises.

In order to carry out the provisions of this Act it is necessary to provide suitable premises, and the Sanitary Authority of this town have decided to provide a Public Cleansing Station for this purpose. This decision has been taken because it has been found, by experience, that it is impossible to properly cleanse such children without baths and disinfecting apparatus. The number of verminous children attending the Public Elementary Schools is far beyond anything anticipated, and they are a danger to the cleanliness of the other children.

The adoption by the Corporation during the past year of the greater part of the **Public Health Acts Amendment Act of 1907** adds greatly to its power of dealing with the system of sanitary accommodation prevalent in this town. The Act gives the Local Authority power to order that all new property shall be provided with the Water Carriage System, and to order the gradual abolition of the old Pans and Middens. These powers have been adopted, and arrangements have been made for the conversion of a small area from the old to the new system. There can be no doubt that the adoption of the Water Carriage System will be one of the most beneficial changes in the sanitary history of the town, but the scheme will be a gradual one, as it will entail increased capacity of the main sewers before being carried out in its entirety.

The Midwives' Act, 1902.—By Section I. (B.) of this Act, on and after April 1st, 1910, no woman shall habitually and for gain attend women in child birth, otherwise than under the direction of a qualified Medical Practitioner, unless certified under the Act. Should any woman do so she is liable to a fine not exceeding £10.

There is, however, a proviso that this Section shall not apply to anyone rendering assistance in a case of emergency. As there are in Middlesbrough only 18 Certified Midwives and it is known that there are more than twice that number of uncertified women acting as Midwives, there will, after April next, probably be a want of properly trained and qualified Midwives in the town. During the past year 932 confinements were attended by registered and certified Midwives, and 736 by unregistered Midwives, being 47.8 per cent. of the total births notified.

Food and Drugs Act.—The question of the prevention of the adulteration of foods is one of increasing difficulty. Year by year the Inspectors of the Local Government Board urge the taking of increased numbers of Samples, and still the Local Authorities are waiting for more definite instructions as to what are to be considered standards of purity.

During the year 1908, 115 Samples of Milk were submitted for analysis, of which 72 were returned as genuine and 43 as adulterated, i.e., 40 were returned as having a certain percentage of Fats extracted, and 3 as having water added. During the past year, of 116 Samples analysed, 38 were returned as having Fats extracted.

In 1901, the Board of Agriculture issued Regulations giving a standard of purity for Milk, both as regards the quantity of Fat and also of Solids which should constitute a genuine Milk, namely, 3 per cent. of Milk Fat and 8.5 per cent. of Milk Solids. In the same Regulations it is suggested that although the quality of genuine Milk offered for sale will usually be well above the official limits of Milk Fat and non-fatty Solids, there may occasionally and especially in certain seasons of the year be cases in which a Sample of genuine Milk may fall below those limits. In such cases it is suggested that the Local Authority might in the first instance call the vendor's attention to the Analyst's report and ask him to offer an explanation, and if the explanation is one they are able to accept, they might in the exercise of their discretion refrain from the institution of proceedings.

The results of these Regulations have been most detrimental to the maintenance of a good milk supply. Of the total Samples submitted for analysis here, it is found that at least 33 per cent. are returned as deficient in Milk Fats, this being evidently a number far in excess of the occasional case anticipated by the Order of 1901, and none of these cases were proceeded against in Court as being below the official standard of purity, owing to the fact that it has become the practice of the Magistrates to accept the plea that such Milk may be the genuine product of the cow, as suggested in the Order of the Board of Agriculture. In one such case in this district proceedings were taken against the seller of milk deficient in milk fat, and a fine was inflicted which, on the appeal of the farmer, was remitted by the Home Secretary. Either it is absurd to fix a standard of purity which in a large number of cases it is found impossible to maintain, or having fixed a standard not to adhere to it.

No consideration so far has been given to the fact that the keeper of dairy cows is in the majority of cases responsible for the production by them of Milk deficient in Fats, and it should be considered to be just as great an offence for him to sell Milk of an inferior quality as it is to sell Milk which is adulterated—defects in feeding, the inferior quality and age of the herd, and the want of knowledge and skill in the management of the herd in such duties as the calving of the cows at proper intervals,

are all matters which can influence the quality of the Milk produced. At present it seems to be the aim of the dairy farmer to have a herd of cows which will produce a large quantity of milk of an inferior quality, instead of a normal quantity of a quality equal to the standard set up by the Board of Agriculture.

The addition of preservatives to foods is also a matter requiring to be dealt with in a more conclusive manner. Recently, samples of Sausages were taken in this Borough which were found to contain over 23 grains of Boric Acid per lb. From various sources, including reports of proceedings taken in Court and also from reports of Inspectors of the Local Government Board, it would appear that the difference of opinion as to what constitutes a harmful amount of Boric Acid varies between 1 or 2 grains to 35 grains per lb.

Population.—At the Census of 1901 the population of the County Borough of Middlesbrough was returned as 91,317, and for the middle of the year 1909 the Registrar General's estimate of the population was 105,255.

The estimated population of the three districts into which the town is divided being :—

North of the Railway	15,198
East of Linthorpe Road.. ..	33,518
West of Linthorpe Road.. ..	56,539

Deaths.—During the year 1909 there were 2,068 deaths registered in the Borough. Of these, 84 were deaths of Non-Residents, and there were 59 deaths of Residents which occurred in Public Institutions outside the Borough, making the total deaths for the year 2,043, equivalent to a death rate of 19.41 per 1,000 of the population.

The death rates in the districts into which the town is divided for statistical purposes being as follows :—

North of the Railway	28.16 per 1,000.
West of Linthorpe Road	19.03 ..
East of Linthorpe Road	16.08 ..

The death rate in the Borough in 1908 was 19.95 per 1,000, and the rates in the districts :—

North of the Railway	28.17 per 1,000.
West of Linthorpe Road	20.55 ..
East of Linthorpe Road	15.22 ..

The death rate for that part of the town which is South of the Railway and which has an estimated population of 90,057, was 17.93 per 1,000 during 1909, being a decrease of .62 per 1,000 of the population.

The number and percentage of deaths, at the various age periods, to the total deaths during 1909 being :—

537 or 26.2 per cent. under 1 year of age.
 396 or 19.3 per cent. over 1 year and under 5 years.
 67 or 3.3 per cent. over 5 and under 15 years.
 84 or 4.1 per cent. over 15 and under 25 years.
 656 or 32.3 per cent. over 25 and under 65 years.
 303 or 14.8 per cent. over 65 years of age.

46.1 per cent. of the total deaths being under 5 years of age.

Births.—During the year 1909 there were 3,363 births registered as having occurred in the Borough, representing a birth rate of 31.95 per 1,000 of the population, compared with the births in the previous year this represents a decrease of 370, equal to a rate of 4.1 per 1,000 of the population.

1,736 of the births were those of male children, and 1,627 were female children, being an excess of 109 males. The natural increase, i.e., the excess of births over deaths during the year being 1,320, a decrease of 347 on the previous year's natural increase.

Zymotic Diseases.—There were 250 deaths registered as having occurred from the principal infectious diseases, of which 6 were deaths of persons non-resident and brought into the Borough for treatment at the various hospitals, the remaining 244 deaths being 86 less than in the previous year, and representing a Zymotic death rate of 2.3 per 1,000 of the population.

The Zymotic death rate in England and Wales during the same period being 1.1 per 1,000.

Small-Pox.—It is now five years since there has been a case of Small-Pox in the Borough.

Scarlet Fever.—There were 105 cases notified, of which 2 died, being equal to a death rate of .01 per 1,000 of the population.

During the past two or three years Middlesbrough has been remarkably free from Scarlet Fever, and the death rate for the past year from this disease is the lowest on record. 83, or 79 per cent., of the cases notified were removed to the Isolation Hospital for treatment.

Enteric and Continued Fever.—69 cases of Enteric Fever and 2 of Continued Fever were notified, of which 16 cases of Enteric Fever were fatal, the mortality rate being .15 per 1,000 of the population, this being a slightly lower rate than that of the previous year. The attack rate equals .65 per 1,000 of the population, and is also slightly less.

69 per cent. of the cases were removed to the Isolation Hospital for treatment, a large proportion of the cases remaining at home were too ill for removal.

Enteric Fever continues to show a steady decrease in both its attack and mortality rates, but the mortality is still considerably above the average of other large towns.

The ages of the 69 cases were as follows :—

1 year and under 5 years..	..	..	6
5 years and under 10 years	..	..	11
10 „ „ 15 years	..	..	8
15 „ „ 25 years	..	..	12
25 „ „ 65 years	..	..	32

44 were males and 25 females.

The cases were spread over the whole town, the St. Hilda's, Vulcan and Ayresome Wards having the largest proportion of cases.

51 houses in 46 streets were infected, 5 streets have two infected houses each.

The number of cases per house being as follows :—

1 house had 5 cases.
2 houses „ 4 cases each.
2 „ „ 3 „
4 „ „ 2 „
42 „ „ 1 case.

The five cases occurring in the one house were all removed to Hospital, the first case being notified on March 3rd and the last on March 29th, all the cases having contracted the disease at the time the first notification was received.

The same applies to one of the houses in which there were 4 cases, in the other of these, two of the cases were notified some months after the first two.

With the exception of two girls, who stated they had recently eaten Whelks, I have been unable to trace any of the cases to the eating of contaminated shell-fish.

Many of the cases occurred in homes in which there was great poverty and lack of sufficient and proper food. There is also evidence that the number of notifications of Enteric Fever is not always a correct guide to the extent of the disease in the town, many cases which are of a doubtful character are removed to the Isolation Hospital, and after being kept under observation for a period are found to be suffering from other diseases. During the past year this has been especially so, several of the patients

being removed from the Isolation Hospital to the Infirmary for operation, whilst others have proved to be attacks of Pneumonia, which disease in Middlesbrough very often closely resembles Enteric Fever in its early stages.

Diphtheria and Membranous Croup.—There were 97 cases notified, of which 22 were fatal, this being a decrease of 72 cases and 8 deaths.

56, or 57.7 per cent. were removed to the Isolation Hospital for treatment.

The rate of mortality from this disease being .20 per 1,000 of the population and 22.6 per cent. of the cases.

Measles.—This disease which had been very prevalent during the previous year showed a very considerable diminution during the second half of the past year, the number of deaths having decreased by 38, this is probably accounted for by the fact that a large number of the children had already had the disease.

Whooping Cough.—A severe epidemic of Whooping Cough causing 69 deaths was experienced throughout the year, being at its severest in the summer months, nearly all the fatal cases being under 5 years of age—the mortality from this disease being .65 per 1,000 of the population.

Diarrhœa.—Zymotic Enteritis or Summer Diarrhœa was not so fatal as during the previous year, there being 97 less deaths recorded. With one exception, these were all deaths of children under 5 years of age, the greatest number occurred in the district West of Linthorpe Road.

Tubercular Diseases.—These include Phthisis (Pulmonary Tuberculosis) and various other forms of Tubercular Disease. During the past year there were 126 deaths from Pulmonary Tuberculosis and 71 from other Tubercular Diseases.

The death rate from Phthisis being 1.1 per 1,000 of the population, and the deaths from all Tubercular Diseases being 9.6 per cent. of the total deaths in the year under notice. In the previous year Tuberculosis was responsible for 10.8 per cent. of the mortality from all causes in this country. During the past 50 years the Tuberculosis death rate has decreased by one-half.

Since the Public Health (Tuberculosis) Regulations, 1908, came into force there have been 120 notifications of Pulmonary Tuberculosis received from the District and Poor Law Medical Officers, 73 of which were poor persons resident at the time of notification in the Union Hospital, and 47 resident in the town. 90 were males and 30 were females.

Of the 47 residing at home at the time of notification, 9 subsequently entered the Union Hospital ; nine of the 73 notified from the Union Hospital subsequently returned home, and of those who left the Union Hospital, 6 again re-entered it.

49 of the 120 cases of Pulmonary Tuberculosis notified have died, this being 40.8 per cent. of the total cases. 37.7 per cent. of the males notified have died, and 50 per cent. of the females. 38 of the fatal cases occurred in the Union Hospital and 11 at the patients' homes. At the end of the year there were 44 notified cases in the Union Hospital and 27 resident in the town.

Respiratory Diseases.—There has been an increased death rate from these causes during the past year, the total deaths from diseases of the Respiratory System being 551, equal to 26.9 per cent. of the total deaths. 132 of these deaths were due to Bronchitis and 399 to Pneumonia, being an increase of 24 and 44 respectively as compared with those of the previous year.

Infantile Mortality.—During the year 1909 there were 543 deaths registered of Infants under one year of age, nine of these were deaths of non-residents, and there were 3 deaths of Infants belonging to the Borough which occurred in the North Ormesby Hospital, the corrected figure 537 represents an Infantile Mortality rate of 159 per 1,000 births, this rate being 1 per 1,000 higher than that of the previous year. The Infantile Mortality during the past year has shown a decided improvement when compared with the total deaths, the percentage of deaths under one year of age to the total deaths having declined 2.4 per cent. There was also a decline in the age period 1 year and under 5 years. The mortality per 1,000 births does not compare quite so favourably, owing to the very great decrease in the number of births registered. The reduction, which now seems to be permanent, made in the Infantile Mortality rates in the town during the past six years is a most satisfactory result of the persistent work of the Health Visitors. For the years 1898 to 1903 inclusive, the average Infantile Mortality per 1,000 births in this town was 190, and for the years 1904 to 1909 inclusive it was 165, a decrease of 25 deaths per 1,000 births, representing a saving of over 80 lives a year. There is, however, still very much work to be done before a satisfactory Infantile Mortality rate can be recorded. Since the adoption of the Notification of Births Act much greater progress has been made by systematic visiting. In 1908, the Health Visitors visited 1468 newly-born infants, and kept them under observation until those surviving were one year of age. From the following Tables it will be seen that in the Wards in which these births took place, namely, the St. Hilda's, Cannon and Newport, the proportion of Still-births to live births was 1 in 27.5, and that 3.7 per cent. of the births were those of illegitimate children, the St. Hilda's Ward having by far the greater number of such births, and that allowing for Still-births, removals and all other cases not traced, the Infantile Mortality was 196 per 1,000 births.

Most of the Infants were being breast-fed at the first visit, the total being 1,393 out of 1,468 born alive ; the feeding after the first month or two varying from breast and bottle to mixed foods.

Table III. gives the number of deaths resulting from the various forms of feeding at the end of 6 months, the totals of columns 1, 2, 3 of Table III. correspond with column 2 of Table II. Column 4 of Table III. corresponds with column 3 of Table II. From these Tables it will be seen that in the St. Hilda's Ward, at the end of 6 months, out of 325 breast-fed infants 20 had died, and out of 26 bottle-fed infants 5 had died, and of the 14 mixed fed infants 9 had died.

Deaths of Infants 6 months of age and under.			
	Deaths of Breast-fed Infants.	Deaths of Bottle-fed Infants.	Deaths of Infants who received mixed feeding.
St. Hilda's Ward	6.1 per cent.	19.2 per cent.	64.2 per cent.
Cannon Ward ..	7.0 ,,	44.4 ,,	10.0 ,,
Newport Ward ..	6.5 ,,	58.8 ,,	100.0 ,,

These percentages clearly demonstrate the advantages of Breast feeding.

Notification of Births Act.—During the twelve months ending December 31st, 1909, there were 3,483 Notifications of Births received, of which 148 were Notifications of Still-births. It will be seen from the following Table that the three Wards, Cannon, St. Hilda's and Newport, have the highest Infantile Mortality, and also the greatest number of Still-births. As the populations of the Wards are not known, it is impossible to give the birth rate for each Ward.

TABLE I.—Summary of Births registered with the Medical Officer of Health during the year 1909.

WARDS.	January		February		March		April		May		June		July		August		Septe'ber		October		Nove'ber		Dec'ember		No. notified during the year.		Total No. of births notified including stillbirths		Total No. of births notified excluding stillbirths.		Deaths occurring during the year amongst children notified.	Death rate per 1,000 children born alive.
	M.		F.		M.		F.		M.		F.		M.		F.		M.		F.		M.		F.		M.		F.		M.	F.		
Ayresome ..	9	6	11	15	19	20	12	13	24	11	47	11	14	11	18	12	17	15	13	6	18	11	15	14	187	145	332	10	7	315	23	73
Acklam ..	18	18	15	10	16	28	16	18	15	18	13	18	16	6	13	16	15	12	14	13	8	19	14	173	187	360	13	5	342	27	79	
Bannon ..	22	18	17	17	30	24	21	20	19	20	9	21	18	21	12	17	22	20	22	14	17	21	26	235	232	467	13	8	446	54	121	
Claveland ..	21	11	11	11	15	15	18	13	18	21	19	15	14	15	12	17	11	10	11	11	14	13	17	177	169	346	6	11	329	31	94	
Exchange ..	8	11	10	13	13	7	9	11	14	12	7	6	11	15	7	11	13	8	8	8	5	10	12	117	127	244	5	8	231	22	95	
Grove Hill ..	9	4	9	10	13	12	8	7	10	6	11	10	8	6	6	4	4	10	11	6	8	8	12	109	94	202	7	2	194	11	57	
Linthorpe ..	10	10	18	8	6	6	8	8	7	11	9	5	10	12	12	5	11	11	12	7	8	13	10	121	100	221	4	1	216	22	102	
Newport ..	23	16	23	22	20	23	22	29	25	19	20	16	30	15	24	22	25	13	22	17	22	21	18	277	230	507	11	6	490	58	118	
St. Hilda's ..	16	23	19	21	27	26	26	18	18	19	17	16	14	15	29	13	13	19	20	15	18	20	27	254	232	486	9	9	468	56	120	
Tulcan ..	20	16	16	10	12	15	13	14	16	13	13	11	14	11	8	11	14	9	12	16	16	15	8	162	155	317	6	7	304	32	105	
TOTALS ..	156	133	149	137	171	176	153	151	166	150	135	129	149	127	141	128	162	127	145	113	124	150	151	150	1812	1671	3,483	84	64	3,335	336	Average 101

The persons attending above confinements were:—

Doctors 1,815
 Registered Midwives 932
 Unregistered Midwives 736

3,483

TABLE II.—Particulars concerning 1,468 Infants born during 1908 in the St. Hilda's, Cannon and Newport Wards and visited during the first year of their lives.

Total Births notified during 1908.	Still Born.	(1) At 1st Visit.						(2) 2nd or 3rd visit at end of 6 months.						(3) Visits at end of 12 months.		
		Dead.	Breast Fed.	Bottle Fed.	Mixed Feeding	Removed and not traced	Total	Breast Fed.	Bottle Fed.	Mixed or other Feeding	Dead	Removed and not traced	Total	Alive	Dead	Removed and not traced
ST. HILDA'S WARD.																
214	..	..	195	7	7	5	209	140	10	9	23	27	159	138	8	13
6	..	..	6	..	..	..	6	4	..	..	2	..	4	3	..	1
8	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
232	..	..	223	7	1	1	231	178	16	5	8	24	199	178	8	13
5	..	..	5	..	..	..	5	3	..	..	1	1	3	3	..	..
5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
484	9	18	429	14	8	6	451	325	26	14	34	52	365	322	16	27
CANNON WARD.																
211	..	..	202	4	4	1	210	160	5	7	17	21	172	145	14	13
10	..	..	7	3	..	..	10	4	4	..	1	1	8	5	3	..
23	10	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
221	..	..	209	8	1	3	218	174	7	3	14	20	184	163	12	9
4	..	..	2	2	..	..	4	1	2	..	1	..	3	3	..	..
16	10	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
487	20	21	420	17	5	4	442	339	18	10	33	42	367	316	29	22
NEWPORT WARD.																
260	1 still born, sex not known	..	247	7	3	2	257	195	7	8	27	20	210	190	12	8
5	11	..	3	1	..	1	4	3	..	..	1	..	3	3	..	..
17	11	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
238	..	..	223	8	1	6	232	181	9	2	15	25	192	167	18	7
7	..	..	5	2	..	..	7	3	1	..	2	1	4	2	1	1
19	10	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
550	24	17	478	18	4	9	500	382	17	10	45	46	409	362	31	16

TABLE III.—Table of particulars of the Feeding of 188 of these Infants who died under the age of 12 months.

CANNON WARD.

Infants born in 1908	(1)			(2)			(3)			(4)			Totals
	Feeding of Infants who died under 1 month old			Feeding of Infants who died between the ages of 1 month & 3 months			Feeding of Infants who died between the ages of 3 months & 6 months			Feeding of Infants who died between the ages of 6 m'ths & 12 months			
	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	
Males Legitimate ..	6	1	..	4	2	..	4	..	..	7	1	6	31
„ Illegitimate..	..	..	..	..	..	..	..	1	..	1	..	2	4
Females Legitimate	..	2	..	4	1	..	6	1	..	5	3	4	26
„ Illegitimate	..	..	..	..	..	..	..	..	1	..	..	..	1
Totals ..	6	3	Nil	8	3	Nil	10	2	1	13	4	12	62

Total deaths in 6 months = 33.

NEWPORT WARD.

Infants born in 1908	(1)			(2)			(3)			(4)			Totals
	Feeding of Infants who died under 1 month old			Feeding of Infants who died between the ages of 1 month & 3 months			Feeding of Infants who died between the ages of 3 months & 6 months			Feeding of Infants who died between the ages of 6 m'ths & 12 months			
	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	
Males Legitimate ..	3	..	..	5	3	3	6	2	5	8	2	2	39
„ Illegitimate..	..	..	..	..	..	..	..	1	..	..	..	..	1
Females Legitimate	3	1	..	2	2	2	5	..	..	10	4	4	33
„ Illegitimate	..	..	..	..	..	..	1	1	..	..	1	..	3
Totals ..	6	1	Nil	7	5	5	12	4	5	18	7	6	76

Total deaths in 6 months = 45.

ST. HILDA'S WARD.

Infants born in 1908	(1)			(2)			(3)			(4)			Totals
	Feeding of Infants who died under 1 month old			Feeding of Infants who died between the ages of 1 month & 3 months			Feeding of Infants who died between the ages of 3 months & 6 months			Feeding of Infants who died between the ages of 6 m'ths & 12 months			
	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	Breast fed	Bottle fed	Mixed and other feeding	
Males Legitimate ..	3	..	..	3	1	1	8	4	3	4	1	3	31
„ Illegitimate..	..	..	..	..	..	1	..	..	1	..	..	..	2
Females Legitimate	1	..	..	3	..	2	2	..	1	5	2	1	17
„ Illegitimate	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	4	Nil	Nil	6	1	4	10	4	5	9	3	4	50

Total deaths in 6 months = 34.

Illegitimate Children.—120 of the births registered were those of Illegitimate Children, this number being a decrease of 21 compared with the previous year, and equal to a rate of 35.6 per 1,000 births. The corresponding rate for England and Wales during the year 1908 was 39.9 per 1,000 births.

Marriages.—The number of marriages of persons, one or both of whom were resident in the Borough of Middlesbrough, during the year 1909 was 761, being a decrease of 107. The number of marriages has declined very considerably during the past two years, there being 963 marriages in 1907.

Uncertified Deaths.—Of the 2,068 deaths registered, 1,955 were certified by registered practitioners. Inquests were held respecting 92 deaths, whilst the remaining 21 were uncertified.

Still-Born Children.—The Superintendent of the Cemetery reports that 145 bodies of Still-born children have been interred during the year, 116 of these upon certificates given by Medical Practitioners and 29 by Midwives.

Vaccination.—Since the passing of the Vaccination Act of 1907 there has been an increasing number of exemptions each year. During the 4 years previous to the passing of this Act the average number of exemptions was 6 per year. Since the Act came into force the number of exemptions have averaged 386 per year. During 1909 there were 1,803 Certificates of successful Vaccination received by the Vaccination Officer and 691 Certificates of Exemption. The fact that there is this increasing number of the population unprotected against attacks of Small-Pox must not be lost sight of.

Report on the Work done by the Health Visitors during the Year 1909.

By far the greater part of the work done by the two Health Visitors during the past year has been the visiting of newly-born infants and giving advice to mothers on the nursing and proper care of the health of the infants. In 1907 the Home Office asked for an enquiry to be made into the effect of woman's work upon Infant Mortality. There is very little female labour in this town, but it was thought that it would be advantageous to make a systematic enquiry into the circumstances and surroundings of the births in certain districts, and for this purpose all the infants born in the St. Hilda's, Newport and Cannon Wards during the year 1908 have been visited from time to time and kept under observation until they were 12 months old. The total number of these infants was 1,468. The final tabulation of the results of this enquiry will not be available for some time, but under the heading of Infantile Mortality will

be found a brief summary of the deaths and the effects of various forms of feeding upon the mortality. In the course of this work the Health Visitors have been able to estimate the amount of care and attention given to the infants, and to point out better methods of feeding when satisfactory progress was not being made. No cases of wilful neglect or carelessness were noted, but ignorance played a very important part, especially in regard to injudicious feeding and clothing.

One very significant fact was observed, namely, that difficulty was experienced in gaining entrance to many of the homes owing to the inmates being still in bed, often as late as noonday. This is thought to be one of the results of the lack of food and fire owing to poverty.

In addition to the visits to newly-born infants, the following work has been done during the year :—

Visits to Homes of School Children.—149 houses from which children, in a dirty or verminous condition, were attending school, were visited and instructions given as to the cleansing of the rooms and bedding. 104 re-visits were made to these houses, and in each case they were found to be improved.

Inspection of Midwives.—There are 18 Certified Midwives living and practising in this Borough, and 4 more who live in North Ormesby but practice in Middlesbrough; only three of the above are trained Midwives. 44 other uncertified women are known to be practising. During the year the Health Visitors made 42 visits to the Certified Midwives, inspecting their outfits and books with a view to enforcing the Regulations of the Central Midwives' Board. 56 visits were also made to the uncertified Midwives.

There were only two cases of Puerperal Fever reported during the year, both of which occurred in the Vulcan Ward. One of these confinements was attended by a Medical Practitioner and one by a Midwife. The cause of the disease in one case appeared to be due to the dirty condition of the house. Both cases recovered.

Houses Let-in-Lodgings.—There are 70 tenement houses which have been registered as Houses Let-in-Lodgings, of which 55 are occupied by families, the remaining 15 being practically unregistered Common Lodging-houses and occupied by men only. The Health Visitors made 91 visits to the rooms occupied by the families, 12 were found to be dirty, 5 cases of sickness were advised to procure medical attention.

House-to-House Visits.—Houses in the following Streets were visited and inspected, viz. :—St. Hilda's Ward—the small yards and courts off Durham Street, Commercial Street and Dacre Street. Vulcan Ward—Rock Street. Newport Ward—Queen Mary Street, with the following results :—

WARD.	No. of Houses Visited.	Condition at First Visit.			Condition at Re-visit.		Houses with Sickness.
		Clean.	Fairly Clean.	Dirty.	Im- proved.	Not Im- proved.	
St. Hilda's.. ..	90	12	69	9	8	1	16
Vulcan	15	14	..	1	1	..	..
Newport	42	15	22	5	..	..	..
Totals	147	41	91	15	9	1	16

Visits under the Factory and Workshops Act—Domestic Workshops.—

143 were visited and found satisfactory.

23 were visited and found to have removed.

39 were visited and found to have ceased.

Outworkers.—72 visits were made and all found to be satisfactory.

During the various visits of inspection the following Sanitary defects were noted and referred to the Chief Sanitary Inspector :—

Defective house roofs	16
„ „ ceilings	3
„ „ Floors	9
„ „ Spouts	4
„ Privy Roofs and Seats..	7
„ Kitchen Walls	8
„ Scullery Sinks	6
„ Fireplaces	3
„ Yard Pavements	2

Sanatorium for Infectious Diseases.

During the year 1909 there were 253 cases of Infectious Disease treated at the Hospital, being a decrease of 74 compared with the previous year.

The following Table shows the monthly admissions :—

DISEASE.	Remaining in Hospital, Dec. 31st, 1908.	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Scarlet Fever	16	10	6	10	10	9	6	6	13	10	7	2	4	109
Enteric Fever	6	5	9	12	2	3	2	5	9	5	7	2	2	69
Diphtheria and Membranous Croup	11	4	7	7	4	5	9	7	1	3	3	6	8	75
Totals	33	19	22	29	16	17	17	18	23	18	17	10	14	253

The following deaths occurred at the Hospital :—

DISEASE.	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Scarlet Fever . . . .	..	..	..	1	..	..	1	1	..	..	..	..	3
Enteric Fever	1	1	1	1	2	1	..	1	..	2	..	1	11
Diphtheria	2	1	1	1	..	2	4	..	..	..	1	2	14
Totals	3	2	2	3	2	3	5	2	..	2	1	3	28

30 of the admissions were cases from outside districts, namely, 11 Scarlet Fever, 6 Diphtheria and 13 Enteric Fever.

They were admitted from the following places :—

	Scarlet Fever	Enteric Fever	Diphtheria.
Thornaby	7	..	..
North Ormesby	2	9	5
Stokesley	2	..	..
Cargo Fleet .. ..	..	..	1
Yarm .. ..	..	1	..
The Asylum .. ..	..	2	..
South Bank .. ..	..	1	..

Scarlet Fever.—109 cases were treated, of which 11 were outside cases. There were 3 deaths, one being an outside case, the death rate being 2.7 per cent. of the cases.

Enteric Fever.—69 cases were treated, 11 of which were fatal, 13 being outside cases, of which two were fatal, the death rate being 15.9 per cent. of the cases.

Diphtheria.—75 cases were treated, 14 of which were fatal, 6 being outside cases, of which two were fatal, the death rate being 18.4 per cent.

The total death rate for the year being 11.0 per cent. of the cases under treatment. This is much higher than in previous years, one reason for which being the fewer number of admissions with an equal number of severe cases.

TABLE IV.—INFANTILE MORTALITY DURING THE YEAR 1909.
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 ..	99	30	26	15	170	51	46	31	31	30	29	34	25	22	30	31	530
Uncertified	2	1	..	..	3	..	2	..	..	..	..	1	1	..	..	..	7
COMMON INFECTIOUS DISEASES—																	
Measles .. ..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	2	5
Whooping Cough ..	..	..	..	..	..	2	1	2	..	2	1	8	1	3	3	5	28
DIARRHOEAL DISEASES																	
Diarrhoea, all forms..	..	2	1	1	4	6	8	8	5	5	2	6	4	4	1	1	54
Enteritis, Muco-enteritis, Gastro-enteritis .. ..	..	1	1	..	2	1	2	3	6	2	1	3	2	..	1	..	23
Gastritis, Gastro-intestinal Catarrh ..	..	1	..	..	1	4	..	..	2	2	..	..	2	..	1	..	12
WASTING DISEASES—																	
Premature Birth ..	59	4	4	..	67	4	1	..	..	..	..	..	..	..	..	..	72
Congenital Defects ..	12	3	3	..	18	2	1	1	..	..	..	..	..	..	..	..	22
Want of Breast-milk Malnutrition ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Atrophy, Debility, Marasmus ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
TUBERCULOUS DISEASES—																	
Tuberculous Meningitis .. ..	..	..	..	..	..	..	1	2	1	1	..	..	2	..	1	..	8
Tuberculous Peritonitis: Tabes Mesenterica .. ..	..	..	..	..	..	..	1	..	..	1	1	..	..	2	..	..	5
Other Tuberculous Diseases .. ..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	2
OTHER CAUSES—																	
Syphilis .. ..	..	1	..	..	1	1	1	1	..	..	..	..	..	..	..	..	4
Rickets .. ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2
Meningitis (not Tuberculous) .. ..	..	1	..	..	1	..	..	1	..	..	2	..	2	1	..	4	11
Convulsions	6	5	3	..	14	2	3	1	..	2	1	3	3	..	..	..	29
Bronchitis .. ..	..	2	1	2	5	7	4	1	3	1	3	2	2	1	2	3	34
Laryngitis .. ..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
Pneumonia .. ..	..	..	..	1	1	2	3	1	6	5	8	6	6	7	9	12	66
Suffocation, overlying .. ..	..	1	..	..	1	2	..	..	..	1	..	..	..	..	..	..	4
Other Causes	8	2	3	5	18	..	2	1	..	..	3	2	..	1	2	1	30
	101	31	26	15	173	51	48	31	31	30	29	35	26	22	30	31	537

TABLE V.—Notifications of Infectious Diseases received during the year 1909.

WARD.	Scarlet Fever	Diphtheria	Typhoid Fever	Continued Fever	Puerperal Fever	Erysipelas	Total
Ayresome ..	5	14	10	1	..	13	43
Acklam ..	12	15	6	1	..	6	40
Cannon ..	11	5	4	..	..	13	33
Cleveland ..	13	2	9	..	..	8	32
Exchange ..	8	7	5	..	..	7	27
Grove Hill ..	9	16	2	..	..	3	30
Linthorpe ..	20	11	1	..	..	5	37
Newport ..	19	9	7	..	..	9	44
St. Hilda's ..	5	10	12	..	..	18	45
Vulcan ..	3	8	13	..	2	10	36
Total ..	105	97	69	2	2	92	367

TABLE VI.—Showing the kind of Sanitary Accommodation in the Houses in which Enteric Fever occurred during the year 1909.

WARD.	Pan	Ashpit	W.C.	Total Cases
Ayresome	8	..	2	10
Acklam	6	..	..	6
Cannon	3	..	1	4
Cleveland	9	..	..	9
Exchange	3	1	1	5
Grove Hill	1	..	1	2
Linthorpe .. ..	..	..	1	1
Newport	6	1	..	7
St. Hilda's	12	..	..	12
Vulcan	13	..	..	13
Totals	61	2	6	69

TABLE VII.—Cases of Infectious Diseases notified during the Year 1909, and classified according to Districts and Age, and shewing the number removed to Hospital.

NOTIFIABLE DISEASE.	CASES IN WHOLE DISTRICT.							CASES NOTIFIED IN EACH LOCALITY.			CASES REMOVED FROM EACH LOCALITY.			
	At all Ages	At Ages.												
		Under 1 year	1 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 65 years	65 years and over							
		East of Linthorpe Road	West of Linthorpe Road	North of Railway	East of Linthorpe Road	West of Linthorpe Road	North of Railway	Total						
Diphtheria (including Membranous Croup)	97	1	40	50	2	4	..	36	52	9	19	33	4	56
Erysipelas	92	2	4	7	6	63	10	25	49	18	..	..	..	..
Scarlet Fever ..	105	..	30	59	11	5	..	36	64	5	21	57	5	83
Enteric Fever ..	69	..	6	19	11	33	..	23	33	13	12	26	10	48
Continued Fever ..	2	..	..	1	..	1	..	..	2	..	..	2	..	2
Puerperal Fever ..	2	..	..	..	1	1	..	2	..	..	..	..	..	..
Totals ..	367	3	80	136	31	107	10	122	200	45	52	118	19	189

TABLE VIII.—Causes of, and Ages at, Death during Year 1909.

CAUSES OF DEATH.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all Ages of "Residents" belonging to Localities, whether occurring in or beyond the District.			Deaths in Public Institutions
	All ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	East of Linthorpe Road	West of Linthorpe Road	North of the Railway	
Measles	61	5	53	3	..	..	..	8	24	29	2
Scarlet Fever ..	2	..	1	..	1	..	..	..	2	..	4
Whooping Cough ..	69	28	39	2	..	..	..	6	39	24	..
Diphtheria (including Membranous Croup)	22	..	17	5	..	..	..	6	12	4	12
Croup	1	1	..	..	..	..	..	..	1	..	..
Fever {	Enteric ..	16	..	1	2	4	9	6	7	3	11
	Other Continued ..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza ..	17	..	2	1	..	9	5	7	10	..	1
Diarrhœa	74	54	18	..	..	1	1	8	48	18	2
Enteritis	35	28	7	..	..	..	..	13	12	10	..
Gastritis	15	7	2	..	1	5	..	7	5	3	2
Puerperal Fever ..	7	..	1	..	1	3	2	1	5	1	3
Erysipelas	3	..	..	..	..	3	..	..	2	1	1
Phthisis (Pulmonary Tuberculosis) ..	126	..	4	10	20	89	3	29	67	30	48
Other Tubercular Diseases	71	15	34	10	4	8	..	19	38	14	11
Cancer, Malignant Disease	88	..	2	..	..	60	26	32	43	13	21
Bronchitis	132	34	14	1	..	45	38	33	76	23	23
Pneumonia	399	66	111	11	24	154	33	109	209	81	53
Pleurisy	6	..	1	..	1	3	1	3	1	2	..
Other Diseases of Respiratory Organs	14	1	4	2	1	5	1	4	7	3	3
Alcoholism, Cirrhosis of Liver	12	1	..	..	..	9	2	5	4	3	..
Venereal Diseases ..	6	4	..	..	..	2	..	2	1	3	7
Premature Birth ..	72	72	..	..	..	..	..	15	50	7	1
Diseases and Accidents of Parturition	10	1	..	..	1	8	..	1	8	1	1
Heart Diseases ..	146	3	4	2	8	81	48	53	61	32	22
Accidents	49	7	10	4	3	20	5	8	26	15	23
Suicides	3	..	..	..	1	2	..	..	3	..	1
Manslaughter ..	3	..	1	..	..	2	..	..	1	2	2
Cerebro-Spinal Meningitis ..	5	1	4	..	..	..	..	1	4	..	..
All other Causes ..	579	209	66	14	14	138	138	163	310	106	92
All Causes	2,043	537	396	67	84	656	303	539	1,076	428	346

TABLE IX.—Vital Statistics of separate Localities in 1909 and previous years.

Names of Localities.	Whole District.				North of the Railway.				East of Linthorpe Road.				West of Linthorpe Road.			
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
YEAR.	Population estimated to middle of each year	Births Registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births Registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births Registered	Deaths at all Ages	Deaths under 1 year	Population estimated to middle of each year	Births Registered	Deaths at all Ages	Deaths under 1 year
1901	91,317	3,328	2,000	657	15,139	..	450	132	29,083	..	507	146	47,095	..	1,043	379
1902	93,354	3,370	1,912	614	15,142	..	430	109	29,956	..	534	173	48,256	..	948	332
1903	95,013	3,489	2,069	645	15,142	..	454	120	30,918	..	526	155	48,953	..	1,089	370
1904	96,684	3,589	1,934	608	15,142	..	494	128	31,673	..	528	144	49,869	..	912	336
1905	98,369	3,435	2,083	593	15,142	..	446	115	31,844	..	536	136	51,383	..	1,103	342
1906	100,069	3,594	2,074	611	15,142	..	462	111	32,080	..	532	144	52,847	..	1,080	356
1907	101,783	3,483	2,077	543	15,142	..	461	100	32,578	..	531	126	54,063	..	1,085	317
1908	103,511	3,733	2,066	591	15,154	..	427	93	33,176	..	505	142	55,181	..	1,134	356
Averages of Years 1901 to 1908	97,512	3,503	2,027	608	15,143	..	453	113	31,413	..	525	146	50,956	..	1,049	348
1909	105,255	3,363	2,043	537	15,198	..	428	97	33,518	..	539	135	56,539	..	1,076	305

NOTES. (a) 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.

(b) Deaths of residents occurring in public institutions, whether within or without the district, are allotted to the respective localities according to the addresses of the deceased.

TABLE X.—Vital Statistics of Whole District during 1909 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	Deaths of Residents registered in Public Institutions beyond the District	Net Deaths at all Ages belonging to the District	
		Number	Rate*	Under 1 Year of Age		At all Ages					Number	Rate*
				Number	Rate per 1,000 Births registered	Number	Rate*						Number	Rate*
1	2	3	4	5	6	7	8	9	10	11	12	13
1899 ..	93,515	3,130	33.45	575	183	2,058	22.00	269	33	49	2,074	22.17
1900 ..	97,007	3,343	34.46	663	198	2,407	24.81	337	39	72	2,440	25.15
1901 ..	91,317	3,328	36.44	657	197	1,995	21.84	262	40	45	2,000	21.90
1902 ..	93,354	3,370	36.09	616	182	1,912	20.48	309	45	45	1,912	20.48
1903 ..	95,013	3,489	36.72	650	186	2,072	21.80	282	52	49	2,069	21.77
1904 ..	96,684	3,589	37.12	612	170	1,928	19.94	303	44	50	1,934	20.00
1905 ..	98,369	3,435	34.91	598	174	2,066	21.00	291	46	63	2,083	21.18
1906 ..	100,069	3,594	35.91	616	171	2,075	20.73	356	60	59	2,074	20.72
1907 ..	101,783	3,483	34.22	547	157	2,103	20.66	322	73	47	2,077	20.46
1908 ..	103,511	3,733	36.06	595	159	2,077	20.06	299	70	59	2,066	19.95
Average for years 1899-1908	97,062	3,449	35.53	612	177	2,069	21.32	303	50	54	2,073	2.136
1909 ..	105,255	3,363	31.95	543	161	2,068	19.64	346	84	59	2,043	19.41

*Rates in Columns 4, 8, and 13 are 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. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions here; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

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.

The following Institutions within the district receive Sick persons from outside the district viz.—The North Riding Infirmary and the Corporation Sanatorium for Infectious Diseases.

The Institutions outside the district receiving persons from the district are.—The North Ormesby Cottage Hospital and the Cleveland Asylum. The Union Workhouse is within the District.

Total population at all ages	91,317	} at Census of 1901.
Number of inhabited houses	17,633	
Average number of persons per house	5.17	
Area of District in acres (exclusive of area covered by water)	2,824	

TABLE XI. RETURN OF DEATHS REGISTERED IN THE BOROUGH DURING THE YEAR 1909.

CAUSE OF DEATH.	South of Railway—East of Linthorpe Road.						South of Railway—West of Linthorpe Road.						North of Railway.						Public Institutions.						Grand Totals							
	Under 1 Yr.		5 Yrs. and under 10.		10 Yrs. and under 15.		15 Yrs. and under 25.		25 Yrs. and under 65.		65 Yrs. and upwards.		Total.		Under 1 Yr.		5 Yrs. and under 10.		10 Yrs. and under 15.		15 Yrs. and under 25.		25 Yrs. and under 65.			65 Yrs. and upwards.		Total.				
	1 Yr. and under 5.	5 Yrs. and under 10.	10 Yrs. and under 15.	15 Yrs. and under 25.	25 Yrs. and under 65.	65 Yrs. and upwards.	Under 1 Yr.	1 Yr. and under 5.	5 Yrs. and under 10.	10 Yrs. and under 15.	15 Yrs. and under 25.	25 Yrs. and under 65.	65 Yrs. and upwards.	Total.	Under 1 Yr.	1 Yr. and under 5.	5 Yrs. and under 10.	10 Yrs. and under 15.	15 Yrs. and under 25.	25 Yrs. and under 65.	65 Yrs. and upwards.	Total.	Under 1 Yr.	1 Yr. and under 5.		5 Yrs. and under 10.	10 Yrs. and under 15.	15 Yrs. and under 25.	25 Yrs. and under 65.	65 Yrs. and upwards.	Total.	
I.—Specific, Febrile, or Zymotic Diseases.																																
1. MIASMATIC DISEASES.																																
Measles	2	5	..	..	..	7	2	20	2	..	..	24	1	27	1	..	..	..	..	..	..	..	29	..	..	..	..	..	..	..	2	62
Scarlet Fever (Scarlatina) .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
Diphtheria .. .. .	..	1	..	..	..	2	5	..	..	..	..	5	..	3	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	12	22
Whooping Cough	2	4	..	..	..	6	17	20	2	..	..	39	9	15	..	..	..	..	..	..	..	..	24	..	..	..	..	..	..	..	69	69
Enteric or Typhoid Fever	1	..	..	..	..	3	..	..	1	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	18
Influenza	1	..	1	..	..	7	..	1	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	18
Other Miasmatic Diseases																																
—Cerebro-Spinal Meningitis	1	..	..	..	..	1	..	4	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	5
2. DIARRHEAL DISEASES.																																
Diarrhoea, Dysentery	7	1	..	..	..	8	33	12	..	..	..	47	5	..	..	..	..	..	..	..	..	..	18	2	..	..	..	..	..	..	75	75
3. VENEREAL DISEASES.																																
Syphilis .. .. .	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	7	..	..	..	..	..	..	10	10
4. SERTIC DISEASES.																																
Erysipelas .. .. .	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3
Pyæmia, Septicæmia .. .. .	..	..	..	..	..	1	1	1	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	8
II.—Parasitic Diseases.																																
Thrush	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Hydatids and other Animal Parasitic Diseases .. .. .	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
III.—Dietic Diseases.																																
Starvation and want of Breast Milk	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Chronic Alcoholism, Delirium Tremens .. .. .	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1

Return of Deaths—Continued.

CAUSE OF DEATH.	South of Railway—East of Linthorpe Road.							South of Railway—West of Linthorpe Road.							North of Railway.							Public Institutions.							Grand Totals																			
	South of Railway—East of Linthorpe Road.							South of Railway—West of Linthorpe Road.							North of Railway.							Public Institutions.																										
	Under 1 Yr.	1 Yr. and under 5	5 Yrs. and under 10	10 Yrs. and under 15	15 Yrs. and under 25	25 Yrs. and under 65	65 Yrs. and upwards	Total	Under 1 Yr.	1 Yr. and under 5	5 Yrs. and under 10	10 Yrs. and under 15	15 Yrs. and under 25	25 Yrs. and under 65	65 Yrs. and upwards	Total	Under 1 Yr.	1 Yr. and under 5	5 Yrs. and under 10	10 Yrs. and under 15	15 Yrs. and under 25	25 Yrs. and under 65	65 Yrs. and upwards	Total																								
VII.—Violence.																																																
ACCIDENT, NEGLIGENCE, &c.																																																
Burn and Scald																																																
Drowning																																																
Asphyxiation																																																
Erysipelas																																																
Deaths consequent on Surgical Operation																																																
Accidental Injuries																																																
VIII.—HOMICIDE.																																																
Murder and Manslaughter																																																
SUICIDE.																																																
Shot, Stab																																																
Poison																																																
Drowning																																																
Otherwise																																																
VIII.—Deaths from Ill-defined and not Specified Causes.																																																
Debility, Atrophy, Inanition	31	1																																														
Portification																																																
Amour																																																
Dyscess																																																
Hæmorrhage																																																
Other Causes not Specified or Ill-defined																																																
GRAND TOTALS	132	69	6	7	14	145	104	477	297	206	15	12	33	257	114	934	93	92	5	10	84	27	31	21	32	14	6	26	181	66	340	206	8															

FACTORY AND WORKSHOP ACT, 1901.

On January 1st, 1909, there were 419 Workshops and 81 Bakehouses on the Register

During the year 73 Workshops and 12 Bakehouses have been added to the Register, and 54 Workshops and 10 Bakehouses were struck off, 4 of the Workshops being converted to Factories by the adoption of mechanical power.

The year therefore closed with a total number of 521 Workshops and Bakehouses on the Register.

1,438 Inspections have been made and 177 nuisances or other contraventions met and dealt with, 167 of which have been remedied.

WORKSHOPS ON THE REGISTER, DECEMBER 31st, 1909.

TRADE.	On Register Jan. 1st, 1909	Added to Register during 1909	Removed from Register		Total Remaining on Register
			Removed	Converted in- to Factories	
Dress and Mantle Makers ..	67	20	16	..	71
Tailors	46	10	6	..	50
Watchmakers	7	1	..	..	8
Boot Makers and Repairers..	72	7	8	3	68
Milliners	19	1	..	..	20
Hosiery Knitters	8	1	..	..	9
Plumbers	15	1	..	..	16
Joiners and Cabinet Makers..	61	12	4	1	68
Blacksmiths	10	..	..	..	10
Sugar Boilers	7	2	2	..	7
Lubricant Manufacturers ..	4	1	..	..	5
Salt Packers	9	1	3	..	7
Saddlers	5	1	1	..	5
Cycle Repairers	12	4	3	..	13
Picture Framers	10	..	..	..	10
Scale Makers and Repairers..	2	..	..	..	2
Wheelwrights and Coach Builders	7	..	..	..	7
Laundries	4	..	..	..	4
Paper Bag Makers	2	..	..	..	2
Coopers	2	..	..	..	2
Tinsmiths	6	1	2	..	5
Beer Bottlers	1	..	..	..	1
Engineers	5	2	1	..	6
Engravers	3	..	..	..	3
Miscellaneous	35	8	4	..	39
Bakehouses	81	12	10	..	83
Totals	500	85	60	4	521

Under Notices served for defective closet accommodation, 3 pail closets and 1 double privy-midden were abolished and 5 water closets substituted.

Summary of Visits made by the Inspector during the Year.

To Factories	260
„ Workshops	750
„ Bakehouses	173
„ Outworkers other than Registered Workshops ..	88
„ Domestic Workshops not on the Register..	53
„ Domestic Bakehouses not on the Register..	33
„ Workplaces	39
„ Premises where Offensive Trades are carried on ..	42
	Total
	1,438

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES.

Premises.	Number of Inspections.	Number of Written Notices.	Number of Prosecutions.
Factories (including Factory Laundries) ..	260	7	Nil
Workshops (including Workshop Laundries) ..	965	42	„
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	39	1	„
Total	1,264	50	„

Particulars.	Number of Defects.			Number of Prosecutions.
	Found	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts:—				
Want of Cleanliness	42	41	Nil	Nil
Want of Ventilation	13	11	"	"
Overcrowding	1	1	"	"
Other Nuisances	34	32	"	"
*Sanitary Accommodation: Insufficient	3	3	"	"
Unsuitable or Defective	70	65	"	"
Not separate for sexes	1	1	"	"
Offences under the Factory and Workshop Act:—				
Breach of special Sanitary requirements for Bake-houses (SS. 97 to 100)	13	13	"	"
Total	177	167	"	"

*Sec. 22, P.H.A. has been adopted.

Standard of Sufficiency—One Closet for each 25 employees, except in large Factories.
Standard of Suitability—Closets to conform with the Local Building Bye-Laws.

3.—HOME WORK.

Nature of Work.	Lists received from Employers.				Addresses of Outworkers.		Notices served on Occupiers as to keeping or sending Lists.	Prosecutions.		Inspections of Outworkers' premises.	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Sending twice in the year		Sending once in the year		Received from other Councils	For-warded to other Councils		Failing to keep or permit inspection of lists.	Failing to send lists.		In-stan-ces, served.	No- Prose-cu-tions.	In- Orders made (S.110)	Prose-cu-tions (S.109, 110).	In- Prose-cu-tions.	In- Orders made (S.110)
	Lists Con-tract-ors	Work-men	Outworkers	Lists Con-tract-ors			Work-men									
Wearing Apparel—	56	16	132	7	1	8	6	Nil	Nil	140	Nil	Nil	Nil	Nil	Nil	Nil
Making, &c. .. .. .	..	..	..	1	..	1	..	"	"	..	"	"	"	"	"	"
Furniture and Upholstery	2	2	..	..	..	..	2	"	"	..	"	"	"	"	"	"
Umbrellas, &c. .. .. .	..	..	..	..	..	..	..	"	"	..	"	"	"	"	"	"
Total	58	18	132	8	1	9	8	"	"	140	"	"	"	"	"	"

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year.							Number
Workers in Clothing	..	..	..	..	..	..	150
„ Leather	..	..	..	..	..	..	73
„ Iron, Tin and Lead	..	..	..	..	..	..	55
„ Wood	..	..	..	..	..	..	87
„ Jewellery	..	..	..	..	..	..	8
„ Bakehouses	..	..	..	..	..	..	83
Miscellaneous	..	..	..	..	..	..	65
Total number of Workshops on Register..							<u>521</u>

5.—OTHER MATTERS.

Class.	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	16
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts but not under the Factory and Workshop Act (S. 5)—	
Notified by H.M. Inspector	22
Reports (of action taken) sent to H.M. Inspector	12. In all cases the requirements of the notices have been carried out.
Underground Bakehouses (S. 101)—	
Certificates granted during the year	Nil
In use at the end of the year.. .. .	1
	An Order for its closure has been issued.

I have the honour to be, Gentlemen,

Your obedient Servant,

CHARLES V. DINGLE, M.D.,

Medical Officer of Health.

Annual Report of the Chief Sanitary Inspector for the Year 1909.

Sanitary Department,
Municipal Buildings,
Middlesbrough.

To the Chairman and Members of the Sanitary Committee.

Gentlemen,—I have the honour to lay before you my Twenty-third Annual Report on the operation of the Sanitary Department.

During the year there were 4,484 Notices served upon Owners to abate the under-mentioned Nuisances :—

Dilapidated Ashpans (Renewed)	..	..	..	..	2,316
Pail Closet Doors Off (Renewed)	..	..	..	..	893
Ashpit Doors Off (Renewed)	..	..	..	..	40
Privy Doors and Seats Off	..	..	..	..	456
Defective Pail Closets (reduced to size of Ashpans)	..	..	..	..	74
Dilapidated Ashpits and Privies	..	..	..	..	277
Offensive Ashpits (Abolished)	..	..	..	..	16
Pail Closets Substituted	..	..	..	..	24
Offensive Ashpits (Abolished)	..	..	..	..	24
Water Closet Substituted	..	..	..	..	37
Offensive Pail Closets (Abolished)	..	..	..	..	55
Water Closets Substituted	..	..	..	..	55
Defective Water Closets (Repaired)	..	..	..	..	19
Dilapidated Yard Walls	..	..	..	..	8
Dilapidated House and Scullery Walls	..	..	..	..	14
Damp House Walls	..	..	..	..	5
Defective House Roofs	..	..	..	..	61
Dilapidated Kitchen and Scullery Floors	..	..	..	..	67
Dilapidated Cellar Floors (Relaid with Concrete)	..	..	..	..	9
Dilapidated Stable Floors	..	..	..	..	3
Dilapidated Shop Floor (Relaid with Concrete)	..	..	..	..	1

Dilapidated Yards (Relaid with Concrete or Scorïæ Bricks) ..	43
Dilapidated Yards (Repaired)	39
Dilapidated Passages (Repaved)	11
Dilapidated Passages (Repaired)	95
Dilapidated Spouting and Fallpipes	196
Defective Ceilings	9
Defective Windows	8
Overcrowding	4
Inadequate Water Supply	43
Offensive Deposits	3
Dangerous Hatchway	1
Defective Chimneys	12
Dilapidated Manure Pits	3
New Manure Pit Built	1
Fowls kept in Yards (Removed)	12
Dangerous and Offensive Well (filled up)	1
Dirty and Filthy Premises (Cleansed)	8
Inspection Chamber Built	2
New Urinals Built	2
Foul Yard Drains (Cleansed)	497
Foul Cellar Drains (Cleansed)	11
Foul Stables Drains (Cleansed)	2
Defective Drains (New Gullies fixed)	27
Defective Sink Drains (Disconnected)	5
Defective Sink-waste Pipes	32
Dilapidated Gully Covers (Renewed)	18
Dilapidated Brickwork over Gullies	2
Dilapidated Sinkstones (Renewed)	22
Public Health Notices Served	1,053
Whitewashing Notices Served	242

The foregoing particulars only represent the cases where Formal Notices have been served, and do not include Nuisances prevented or abated by the verbal request of your Inspectors.

One Notice frequently deals with several separate Nuisances.

MAIN DRAINS.

In addition to the above, our Staff has cleared 9,431 yards of Main Drains in Back Passages, and relaid 248 yards with proper gradients.

471 yards of Glazed Stoneware Sanitary Pipes have also been laid, in lieu of broken land tiles, segments, etc.

1 New Flushing and Examination Chamber has been constructed, and 7 New Gullies and 15 New Grates and Frames have also been fixed.

100 Manholes in the old parts of the town have been regularly emptied and cleansed as often as found necessary.

2,226 Choked Drains have also been cleared by the aid of Cooper's Vacuum Pump free of charge to the Owners.

DISEASED AND UNWHOLESOME FOOD.

During the year 23 seizures of Diseased and Unwholesome Food were made, as shown by the undermentioned Table :—

Number of Seizures.	Article.	Weight.
—	—	—
16	Beef	2,083 lbs.
3	Pork	434 „
1	Mutton	42 „
1	Rabbits	20 „
1	Cherries	312 „
1	Apples	28 „

In each case the articles of food were surrendered voluntarily and destroyed with the consent of the Owners. Notice to inspect same having been previously given to your Inspector.

FOOD AND DRUGS.

During the past year 302 Samples of Food and Drugs have been procured and submitted to the Borough Analysts (Messrs. J. E. Stead and H. Frankland) for analysis, with the undermentioned results:—

Nature of Samples.	Number Submitted.	Genuine.	Adulterated.
Milk	110	72	38
Condensed Milk	4	4	..
Cream	2	2	..
Butter and Margarine	62	62	..
Lard and Dripping	31	31	..
Cheese	23	23	..
Sausage, Black Pudding and Poloni	15	15	..
Tea, Coffee and Cocoa	12	12	..
Jam, Marmalade and Golden Syrup	9	9	..
Spirits	8	8	..
Mustard and Pepper	5	5	..
Beef Extract	4	4	..
Disinfectants	4	4	..
Bread, Cornflour and Yeast	3	3	..
Castor Oil, Mineral Oil and Sauce	3	3	..
Sweets	2	2	..
Calcined Magnesia	2	..	2
Salmon and Shrimp Paste	1	1	..
Composition Essence	1	1	..
Carbonate of Soda	1	1	..
Totals	302	262	40

SUMMARY.

January to March	98
April to June	80
July to September	53
October to December	71
Total	302

Seven Samples of Fresh Sausages (although returned "Genuine") contain chemical preservatives varying from 0.34 to 23.18 grains per pound.

This practice cannot be too strongly condemned.

It is hoped that the Local Government Board, who have this subject under consideration, will issue their Report at an early date.

No.	Nature of Sample.	Result of Analysis.	Remarks.
1 to 26	Assorted	Genuine	
27	Milk	3% Fats extracted	Retailer's attention called to the poor condition of the milk, and warned as to the consequences should no improvement be effected in the future.
28 to 31	Milk	Genuine	
32	Milk	10% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain the poor condition of milk. Explanation accepted, but warned as to the consequences should no improvement be effected.
33 to 35	Assorted	Genuine	
36	Milk	20% Fats extracted	Do. do.
37	Milk	10% Fats extracted	Do. do.
38	Milk	13% Fats extracted	Do. do.
39 to 42	Assorted	Genuine	
43	Milk	6.6% Fats extracted	Do. do.
44	Milk	3.3% Fats extracted	Retailer's attention called to the poor condition of the milk, and warned as to the consequences should no improvement be effected.
45 to 63	Assorted	Genuine	

No.	Nature of Sample.	Result of Analysis.	Remarks.
64	Milk	23% Fats extracted	<p>Both Samples were obtained from the farmer prior to delivery to the dairyman, the farmer in question having been under observation for over two months, owing to the impoverished quality of his milk. As he confessed his inability to improve the same, and requested us to witness his milking operations, our Veterinary Surgeon, together with the Public Analyst of Stockton, visited the farm and made recommendations, which the farmer stated that he had faithfully carried out. Yet the milk continued practically the same. As no improvement was apparent, we summoned him to appear before the Magistrates for neglecting to supply milk of the nature, substance and quality demanded by the purchaser. His case was taken up by the Dairy Farmers' Defence Association, who secured a large number of expert witnesses from all parts of the country to appear on behalf of the Defendant, and prove that no fraud had been practised, the impoverished condition of the milk being attributed to the prevalence of cold winds during the nights, and the poor quality of the farm land. Whilst the morning's yield was deficient in fat, the afternoon's was above the standard, and they urged that had the morning's and afternoon's milk been averaged, both would have contained more than 3% of Fat.</p> <p>The Magistrates dismissed the case on a technical point, and ordered the Corporation to pay £12 12s. 0d. towards the Defendant's Costs, which were stated to be over £25 0s 0d.</p>
65	Milk	25% Fats extracted	
66	Milk	Genuine	

No. No.	Nature of Sample.	Result of Analysis.	Remarks.
67	Milk	13% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain the poor quality of milk. Explanation accepted, but warned as to the consequences if no improvement is effected.
68 to 70	Milk	Genuine	
71	Milk	6.6% Fats extracted	Do. do.
72 to 74	Assorted	Genuine	
75	Milk	8% Fats extracted	Do. do.
76	Milk	Genuine	
77	Milk	20% Fats extracted	Retailer ordered to appear before the Town Clerk and myself, when it was discovered that the milk was obtained from the Owner of 64 and 65. Retailer warned that he was liable and ordered to take greater care in his future purchases.
78 to 87	Assorted	Genuine	
88	Magnesia	47% Carbonate of Magnesia (unofficial)	Substance enclosed in cardboard boxes, became adulterated owing to exposure in window. Warned to keep future supply in air-tight cases or bottles.
89 to 98	Assorted	Genuine	
99	Milk	16% Fats extracted	Taken from the Owner of Samples 64 and 65 to see if any improvement had been effected.
100	Milk	16% Fats extracted	
101	Milk	Genuine	
102	Milk	13.3% Fats extracted	Samples taken at the Railway Station. Retailer ordered to appear before the Town Clerk and myself to explain the poor quality of the milk. Explanation accepted, but warned as to the consequences if no improvement be effected
103	Milk	13.3% Fats extracted and 1.1% added water	
104 to 123	Assorted	Genuine	

No.	Nature of Sample.	Result of Analysis.	Remarks.
124	Milk	6.6% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain poor quality of the milk. Explanation accepted, but warned as to the consequences if no improvement be effected
125	Milk	2% added water	Retailer's attention directed to poor quality of milk, and warned as to the future.
126	Milk	8.3% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain the poor quality of the milk. Explanation accepted, but warned as to the consequences if no improvement be effected
127 to 134	Assorted	Genuine	
135	Milk	6.66% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain poor quality of milk. Explanation accepted, but warned as to the consequences if no improvement be effected.
136 to 138	Milk	Genuine	
139	Milk	16.6% Fats extracted (unofficial)	Sample brought to Office by Retailer who had been previously cautioned. Purchased from Corporation Isolation Farm.
140	Milk	Genuine	
141	Milk	8.3% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain the poor quality of the milk. Explanation accepted, but warned as to the consequences if no improvement be effected.
142	Milk	Genuine	
143	Milk	11.7% Fats extracted	Do. do.
144	Milk	15% Fats extracted	Do. do.
145 to 147	Milk	Genuine	
148	Milk	15% Fats extracted	Do. do.
149	Milk	Genuine	

No.	Nature of Sample.	Result of Analysis.	Remarks.
150	Milk	11.7% Fats extracted (unofficial)	Sample delivered at office. Farmer offered to change feed of cows.
151	Milk	6.6% Fats extracted	Sample taken at the Railway Station. Retailer ordered to appear before the Town Clerk and myself to explain poor quality of milk. Explanation accepted, but warned as to the consequences if no improvement be effected.
152	Milk	10% Fats extracted	Sample taken at Railway Station. Farmer ordered to appear before the Town Clerk and myself to explain poor quality of milk. Explanation accepted, but warned as to consequences if no improvement be effected.
153	Milk	3.3% Fats extracted	
154	Milk	16.6% Fats extracted	Do. do.
155 to 170	Assorted	Genuine	
171	Magnesia	58% Carbonic Acid and water (unofficial)	Enclosed in cardboard box. Retailer ordered not to expose same in shop window.
172 to 208	Assorted	Genuine	
209	Milk	5% Fats extracted (unofficial)	Sample brought by Superintendent of Nurses' Home, being under the impression that their supply was not genuine.
210	Lemon Squash	Genuine	
211	Milk	6.66% Fats extracted	Same owner as sample 209. I obtained this sample on delivery at the Nurses' Home. Retailer ordered to appear before the Town Clerk and myself to explain poor quality of milk. Explanation accepted, but warned as to consequences if no improvement is effected.
212 to 260	Assorted	Genuine	

No.	Nature of Sample.	Result of Analysis.	Remarks.
261	Milk	10% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain the poor quality of the milk. Explanation accepted, but warned as to the consequences if no improvement be effected.
262	Milk	5% Fats extracted	Do. do.
263	Milk	6.66% Fats extracted	Do. do.
264 to 268	Assorted	Genuine	
269	Milk	3.3% Fats extracted	Retailer's attention directed to the poor quality of the milk, and warned as to the consequences should no improvement be effected.
270	Milk	13.3% Fats extracted	Retailer ordered to appear before the Town Clerk and myself to explain poor quality of milk. Explanation accepted, but warned as to the consequences if no improvement is effected in the future.
271 to 275	Assorted	Genuine	
276	Fresh Sausage	Genuine, but contains 21.18 grns. Boric Acid per lb.	Unofficial
277	Do.	Genuine	Unofficial.
278	Do.	Genuine, but contains 23.18 grns. Boric Acid per lb.	Unofficial.
279 to 290	Assorted	Genuine	
291	Fresh Sausage	Genuine, but contains 16 grns. Boric Acid per lb.	Unofficial.
292	Do.	Genuine, but contains 17.3 grns. Boric Acid per lb.	Unofficial.
293 to 302	Assorted	Genuine	

DAIRIES, COWSHEDS AND MILKSHOPS.

DAIRIES.

Number on Register	..	..	..	..	..	..	..	9
Applications for Registration	..	..	..	..	..	..	..	1

COWSHEDS.

Number on Register	..	..	..	..	..	..	..	17
Number of Cows	..	..	..	..	..	..	..	114

Two Cowsheds have been closed during the year. One Cowshed floor has been relaid with Cement Concrete, with a suitable channel constructed to carry off the urine.

The whole of the Cowsheds have been limewashed twice during the year, in accordance with the Regulations.

MILKSHOPS.

Number on Register	..	..	..	..	..	..	..	475
Number of Applications for Registration	..	..	..	..	..	..	..	84
No. of Transfers of Business	..	..	..	..	..	..	..	34
Number Closed	..	..	..	..	..	..	..	17

SLAUGHTER-HOUSES.

Number on Register (Public)	..	..	..	..	..	..	..	1
Do. (Private)	..	..	..	..	..	..	..	38
Total	..	..	..	..	..	..	..	39

Only three of the above are subject to Annual Renewals, the remaining 36 being perpetual Licenses.

PUBLIC SLAUGHTER-HOUSES.

MONTH.	INCOME.			ANIMALS SLAUGHTERED.				
	£	s.	d.	BEASTS.	SHEEP.	CALVES.	PIGS.	TOTALS.
January	9	9	8	44	203	8	130	385
February	7	2	7	43	161	1	56	261
March	6	4	0	40	99	1	52	192
April	5	13	10	36	83	3	43	165
May	8	9	0	59	109	..	44	212
June	6	9	8	44	145	3	34	226
July	8	1	4	47	240	4	42	333
August	6	13	0	31	199	..	34	264
September	6	12	8	34	206	..	38	278
October	9	6	9	39	293	..	93	425
November	6	13	6	36	216	..	41	293
December	8	2	1	36	180	1	82	299
Totals	£88	18	1	489	2,134	21	689	3,333

OFFENSIVE TRADES.

Number on Register :—

Tripe Boilers	..	..	..	..	..	..	..	7
Tallow Melters	..	..	..	..	..	..	..	2
Tallow Chandler	..	..	..	..	..	..	..	1
Gut Scrapers	..	..	..	..	..	..	..	4
Fat Renderer	..	..	..	..	..	..	..	1
Bone Steamer	..	..	..	..	..	..	..	1
Total	..	..	..	..	..	..	..	16

The above are regularly inspected, and, as far as the nature of the trades will allow, are kept in a fairly clean condition.

FRIED FISH SHOPS.

Number on Register	93
Added to Register, 1909	12
Closed during 1909	3

These premises are, as a rule, remarkably well fitted up, and, together with the cooking utensils, are kept scrupulously clean. The materials cooked are of the best quality.

The public now recognise them as a necessity, and we rarely receive a complaint regarding their management.

INFECTIOUS DISEASE.

During the year 367 cases of Infectious Disease have been notified to the Medical Officer of Health.

Enquiries were made into their cause or origin, necessitating 1,468 visits by your Inspectors.

189 cases were removed to the Sanatorium for treatment.

When the patients are treated in their own homes, a printed List of Instructions to be observed is left at each house ; all necessary Sanitary Appliances, Disinfectants and Antiseptic Oils are supplied free, and the rooms, bedding, etc., disinfected immediately upon the recovery or death of the patients.

286 bedrooms have been disinfected.

COMMON LODGING-HOUSES.

There are 21 Common Lodging-Houses in the Borough, all situated on the North side of the Railway.

The Houses registered contain 172 rooms for sleeping purposes, and afford accommodation for 746 adults and 6 boys nightly.

They have been regularly inspected and kept as far as possible in a clean state.

During the past year the standard of air space has been increased from 250 to 400 cubic feet.

This has reduced the number of Lodgers allowed to be received from 1,026 to 746 and 6 boys.

HOUSES LET-IN-LODGINGS.

Number on Register	..	..	..	..	..	..	70
Being an increase of..	..	..	..	..	..	..	15

The above are principally Houses-let-in-Tenements, and they undoubtedly constitute one of the most difficult problems with which we have to deal.

The tenements are frequently overcrowded by persons of dirty and thriftless habits, and, as the occupiers are constantly moving from one part of the town to another, it is exceedingly difficult to follow them and enforce the Regulations.

All Houses Let-in-Lodgings are inspected frequently by both Inspectors and Health Visitors.

COLLECTION OF NIGHTSOIL AND OTHER REFUSE.

MONTH.	Total Loads Collected.	Barged to Sea.	Sold to Farmers and others	Amount Realized.			Trips to Sea.	Bags of Paper and Light Refuse.
				£	s.	d.		
January	4,585	1,339	94	109	3	4	4	5,552
February	3,594	1,624	1,834	233	7	0	4	4,448
March	3,466	2,606	745	248	12	4	6	4,438
April	3,485	3,258	659	195	19	5	8	4,489
May	4,375	2,193	1,526	82	12	11	6	5,583
June	3,368	1,180	1,674	119	8	9	2	4,440
July	4,040	2,783	766	201	11	0	7	5,480
August	3,340	1,324	1,221	210	9	6	4	4,382
September	3,335	3,937	1,011				8	4,471
October	4,236	3,481	758				10	5,472
November	3,390	3,244	882	183	6	11	11	4,516
December	3,535	2,387	1,297	102	10	0	8	4,491
Totals	44,749	29,356	12,467	1,687	1	2	78	57,762

SMOKE OBSERVATIONS, 1909.

During the past year 128 Observations have been taken from 25 Chimneys. 5 of these chimneys exceeded the time limit of 10 minutes' black smoke per hour. Eleven observations were taken from the boiler-houses in company with the stokers. In 5 cases, Stokers were interviewed, cautioned and advised; 5 interviews have also taken place between the Managers, Engineers and your Inspector regarding excessive emissions of black smoke. Every attention has been given to the matter and care taken with regard to stoking, in order to minimise the same as far as possible.

In conclusion, I take the opportunity of stating that all the Inspectors have worked well, loyal to each other, myself and the Committee they serve. They have discharged the oft-times difficult and dangerous duties imposed by the Public Health Acts with tact and efficiency, particularly so does this apply to the Senior Inspector, Mr. T. McDonald, who has rendered ready and willing assistance at all times.

I am, Gentlemen,

Your obedient Servant,

GEORGE H. ANDERSON,

Chief Sanitary Inspector.

APPENDIX.**Report on the Treatment of Consumption at the Hemlington Hospital during the Summer of 1909.**

CLEVELAND LODGE,
FEBRUARY, 1910.

Gentlemen,—As I undertook the examination of patients for admission to the Hemlington Hospital for the summer of 1909, and also their supervision while they were there, it is incumbent upon me to offer a few remarks.

Thirty patients were admitted, and of these one died in Hospital from Hæmorrhage, eight made no substantial improvement, eight improved, eleven showed great improvement, and two were cured.

Some of the cases were in a very indifferent condition when admitted, but it was such an obvious advantage to themselves, their families and the community, to get them away from their homes where they were spreading infection, that they were admitted, when otherwise they should have been provided for elsewhere. Consequently the second season of our experimental Consumptive Hospital has been a rather unfortunate one. In the first place, we had cold, wet weather during the greater part of the time, and this year having been devoted to the relief of men, has not given such successful results as we had during the previous year when women were treated. It is true that some of the cases were rather unpromising from the beginning, their illness being too advanced to hope for more than the relief of symptoms and general temporary improvement, yet in all but two or three acute cases there was a remarkable response to the change of air, good and suitable food and regular habits. Nearly all showed immediate improvement, they began to gain in weight and to cough and expectorate less; they were also for the most part cheerful, and were pleased and thankful at having such good quarters and nursing.

It is very difficult to establish a complete comparison between the results of the treatment of the women in 1908 and the men in 1909, for so many of them have not reported themselves—these having changed their address cannot be found.

Dr. Dingle and I, however, are of opinion that the women did much better than the men, though it must be admitted that the women had a great advantage in the season, the summer of 1908 being warm and dry, while that of 1909 was cold and wet. The Hospital is beautifully situated in an elevated position, amidst air which is stimulating and refreshing. In fine weather the conditions are perfect, but in wet and cold weather they leave much to be desired.

During their residence, a proportion of the men were set to do light work, such as hay making, and some did odd jobs about the Hospital Grounds. Nearly all took regular exercise, and those not able to do so spent their time in shelters, where they had every comfort. Many of them returned to work when they left the Hospital, but it is sad to relate that eight of them died since they returned to their homes.

We are driven to the conclusion that, however great the general advantages are of running the Hospital for four months in the summer, the time is too short to rely upon a cure being effected even in mild cases.

The question which the Committee has now to consider is whether steps can be taken to provide accommodation which would enable the treatment to be continued for a longer period. My own recommendation would be to open the Hospital again this next summer for women and children, and to then consider a scheme of a more permanent nature.

I have no doubt that a permanent Hospital would, in a few years, clear the town of the great bulk of Tubercular Diseases of the Lungs, but I do not think it can be done at Hemlington without the expenditure of a good deal of money and the installation of a resident Staff. This would open up a large question in the consideration of which we ought to invite the co-operation of the Board of Guardians.

JOHN HEDLEY.

To the Chairman and Members of the
Committee of Management.

Gentlemen,—For the second year in succession cases of Pulmonary Tuberculosis have been treated, on the open-air principle, at the Corporation Hospitals at Hemlington. During the summer of 1908 there were 24 women admitted, and last summer 30 men and boys.

The arrangements made for Medical examination and treatment of the cases, and also for the staffing of the Hospital, were similar to those of the previous year.

The Committee of Management are greatly indebted to all the Medical Practitioners of the town who so willingly consented to act as Visiting Physicians for a period of one week each.

The Hospital was opened on May 10th, and closed, owing to the very inclement weather then being experienced, on September 30th, during which period 30 men and boys were admitted, the average length of residence being 67.5 days.

The results of the treatment of these cases has not been altogether favourable from a curative point of view, as already 8, or 26.6 per cent., of these cases have terminated fatally. There are, however, some who have derived great benefit from their residence at the Hospital, and who are in a fair way to complete recovery. From the experience gained from last year's admissions, it is found that men suffering from Phthisis do not cease to follow their employment until they are compelled to do so owing to their great weakness and prostration. By the time they seek medical advice, the disease is far advanced and they are not suitable cases for the open-air treatment.

The following Table gives a summary of the cases admitted and the results of the treatment, both at the time of leaving the Hospital and also at the end of the year 1909.

The Balance Sheet shows that the total cost of treatment and maintenance during the summer was £238, or about £8 per head, the average length of residence being over two months.

Yours faithfully,

CHARLES V. DINGLE, M.D.,

Hon. Secretary.

Case	Age	Length of Residence in Hospital	Condition on Admission	Condition on Discharge	Increase or Decrease in Weight	General Remarks
J.D.	34	31 days	Temperature 102° ; dry cough ; dullness both apices	No improvement ; temperature high sent home as unsuitable case, died 4 months after discharge.	gained 2½lbs.	Labourer. Had been ill six weeks before admission.
J.McM.	26	142 "	Temperature normal, dullness and moist rales on both sides, crepitation and friction sounds on left side of lungs.	Conditions improved.	„ 6lbs.	Posiman. Ill two months.
J.V.	29	140 "	Temperature normal, losing flesh, dullness and increased vocal resonance at right apex of lungs.	Conditions improved, slight cough.	„ 114lbs.	Police Constable. Ill six months.
W.W.	44	24 "	Shortness of breath and cough, dullness and moist rales left apex ; Hæmorrhages.	Died in Hospital from Pulmonary Hæmorrhage.	Lost 1½lbs.	Caretaker (Church and School). Ill 2 years.
J.A.	35	93 "	Temperature 99° ; loss of voice, cough, moist rales in right lung ; Tubercle-bacilli isolated in sputum.	Slight cough, no moist rales.	Gained 16lbs.	Steelworker. Ill two months
R.B.	38	139 "	Hæmorrhages from lungs, losing flesh ; temperature normal moist crepitations and rales left apex.	Greatly improved.	„ 13lbs.	Ship's Steward Ill 2 months.
W.W.	11	134 "	Temperature 99° ; dullness and rales in both apices ; Cough and expectoration, very thin.	Left lung still affected, right lung healed. Condition greatly improved.	„ 7½lbs.	School boy. Ill 3 months.

Case	Age	Length of Residence in Hospital	Condition on Admission	Condition on Discharge	Increase or Decrease in Weight	General Remarks
J.M.	34	64 days	Temperature normal, slight cough and expectoration, a little dullness and increased vocal resonance in right apex.	Short of breath on exertion. General improvement.	gained 1 $\frac{3}{4}$ lbs.	Furnaceman. Ill 3 years.
J.P.	59	29 ..	Temperature normal, cough and pain in chest, great shortness of breath, rales left side of chest.	Temperature increased; some pneumonia. Sent home as unsuitable case. Died 1 month after discharge.	„ 8 $\frac{1}{2}$ lbs.	Labourer. Ill 9 months.
A.B.	15	127 ..	Temperature 100°; Cough and weakness crepitations right apex.	Very little expectoration or cough. General condition improved.	„ 13lbs.	Errand boy. Ill 3 months.
T.M.	37	76 ..	Temperature normal Crepitations and increased vocal resonance in right apex, dullness in left apex, cough and sweats.	No abnormal sound in lungs.	„ 12 $\frac{1}{2}$ lbs.	Wireworker. Ill 3 months.
G.B.	38	70 ..	Temperature normal, dullness and increased vocal resonance in left apex; blood-stained sputum.	No abnormal sound in lungs. Made steady improvement.	„ 20 $\frac{1}{2}$ lbs.	Ironworker, Rolling Mills. Two years ill.
W.P.	40	54 ..	Temperature 100°; Crepitations both lungs, cough and expectoration.	No improvement, disease in left lung increasing.	Lost $\frac{3}{4}$ lb.	Shipyard Plater. Ill 6 months.
T.S.	38	67 ..	Temperature normal, dullness left apex; night sweats, cough and expectoration.	Lung condition greatly improved, no dullness, no expectoration. Died suddenly shortly after he resumed his work.	Gained 6lbs.	Fireman. Ill 18 months.

Case	Age	Length of Residence in Hospital	Condition on Admission	Condition on Discharge	Increase or Decrease in Weight	General Remarks
G.R.	47	111 days	Temperature normal, crepitations and dullness both apices, had had slight hæmorrhages and cough.	Improved ; still some crackling sounds in left apex at back.	gained 15lbs.	Tailor. Ill two years.
W.C.	40	8 „	Temperature 103° ; left lung dull and crepitant, cough.	Sent to Union Hospital as unsuitable. Died in few days.	Too ill to be weighed	Steel Furnaceman. Ill 4 months.
T.J.	39	63 „	Temperature normal, tubercle bacilli isolated in sputum, dullness and rales in left apex, cough and night sweats.	Very much improved and lung sounds normal.	Gained 3½lbs.	Furnaceman. Ill 3 months.
P.McE.	29	60 „	Temperature normal, dullness and crepitations right apex in front ; cough, night sweats and expectoration.	Very much improved, very slight cough ; chest sounds nearly normal.	„ 18lbs.	Rail Loader. Ill 1 year.
T.G.	38	89 „	Temperature 101° ; emaciated, dry hacking cough, moist crepitations right apex back and front.	No improvement. Died 3 months after discharge.	Lost 8½lbs.	Labourer.
T.B.	14	70 „	Temperature 99° ; dullness and crepitations left upper lobe of lung, cough and expectoration.	Making considerable progress to recovery, left apex still affected.	Gained 7lbs.	School boy. Ill 6 months.
A.N.	16	69 „	Temperature normal, dullness and crepitations right apex, back and front ; blood-stained expectoration.	Chest sounds normal, heart hypertrophied and action rapid.	„ 10½lbs.	Labouring work. Ill 6 months.

Case	Age	Length of Residence in Hospital	Condition on Admission	Condition on Discharge	Increase or Decrease in Weight	General Remarks
J.H.	22	45 days	Temperature 101° ; cavities in lungs ; crepitations, profuse night sweats and diarrhoea.	Sent home as unsuitable. Died in Union Hospital one month after.	Too ill to be weighed	Had been in Navy.
T.W.	28	44 "	Temperature normal, slight crepitations in both apices, some emphysema, cough and expectoration.	Appeared to be quite recovered.	Gained 16½lbs.	Labourer.
J.F.	34	56 "	Temperature normal, crepitations, increased vocal resonance and Bronchial breathing at right apex.	Not much improved cough troublesome.	„ 1½lbs.	Stoker. Ill 10 months.
G.L.	28	47 "	Temperature normal, dullness and crepitations both apices, cough and expectoration.	Greatly improved. Dullness diminished and no crepitations in lungs.	„ ¾lbs.	Machinist at Westgarth's. Ill 6 months.
M.C.	20	42 "	Temperature 101° ; dullness and crepitations and moist rales in left apex ; cough and loss of weight.	No improvement ; greater part of left lung being involved. Died two months afterwards	„ ¾lbs.	Labourer. Ill for some months
G.J.	24	42 "	Temperature 100°. dullness and increased vocal resonance back and front of right apex.	Very much improved. Temp. not quite normal.	„ 11¾lbs.	Blacksmith. Ill 2 months.
W.B.	18	32 "	Temperature 99° ; dullness and crepitations back and front right apex ; cough, weakness and loss of weight.	Slight improvement, right apex still unsatisfactory	„ 6½lbs.	Gardener. Ill 2 months.
J.P.	17	23 "	Temperature normal, had had slight hæmorrhage ; dullness and increased vocal resonance right apex.	General health improved.	„ 5½lbs.	Labourer. Ill about a fortnight.
C.L.	37	34 "	Temperature normal, cough and expectoration, dullness and crepitations right apex, blood-stained sputum.	Slightly improved. Gained weight rapidly.	„ 9½lbs.	Labourer. Steelworks. Ill 3 months.

