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ANNUAL REPORT

ON THE HEALTH OF THE

Urban Sanitary District of the Borough of Bacup,

during 1910,

BY

JOHN BROWN, M.D., B.S., D.P.H., VICT.,

MEDICAL OFFICER OF HEALTH.

PRESENTED JANUARY, 1911.

BACUP: ALBERT BOOTH, PRINTER, KING STREET, AND ST. JAMES' STREET.



THE HEALTH COMMITTEE.

Consists of the following Members ;

THE MAYOR (ex-officio).

Chairman-MR. COUNCILLOR CROPPER, J.P.

Vice-Chairman-MR. COUNCILLOR BARCROFT.

- ", ALDERMAN CRABTREE,
- ,, ALDERMAN HEYS.
- " COUNCILLOR BRIERLEY.
- ,, COUNCILLOR GREENWOOD.
- ,, COUNCILLOR E. LORD.
- " COUNCILLOR J. H. LORD.
- ", COUNCILLOR MORAN.
- ,, COUNCILLOR OGDEN.
- " COUNCILLOR RAWSON.
- " COUNCILLOR J. SMITH.
- " COUNCILLOR TAYLOR.

MEDICAL OFFICER'S ANNUAL REPORT

FOR 1910.

To the Mayor, Aldermen, and Councillors of the Borough of Bacup.

GENTLEMEN,

I have the honour of presenting you with my Thirtythird Annual Report on the Sanitary Condition and Vital Statistics of the Borough of Bacup for the year 1910.

The area of the Borough is 6,120 acres. The area covered by water is so small that it may be ignored.

POPULATION.

At the last census in 1901 the population was 22,505; the inhabited houses, 5,284; the average number of persons per house was 4.2. In 1891 the average per house was 4.4 persons.

The population in the middle of 1910 is estimated at 24,600.

BIRTHS.

During the 53 weeks of the statistical year, ending on Saturday, Dec. 31st, 1910, the Registrar's returns recorded 473 births—males 232, females 241; the combined birth rate being 18.86 per 1,000. The illegitimate births were 20 males 8, females 12. The birth rate for England and Wales for 1910 was 24.8 per 1,000. The natural increase in the Borough by excess of births over deaths for the year was 104. The birth rate is the lowest ever recorded. This is the second year in succession that we record a birth rate less than 20 per 1,000. During the past thirty years there has been a decline in the birth rate in all civilised Countries The births registered in Bacup in 1878 were 990. In 1910 only 473 births, that is a decrease of 517. There are many reasons for this decline, amongst which the more prominent are the keener competitions in all walks of life; the love of pleasure, and the increased responsibilities of family life. In regard to our own Borough, which is industrial, we have had about three years of short time in our staple trade. Hundreds of families have had only three or four days' work per week, and in many families the severest economy must have been exercised in order to enable them to pay their way; so that any increase in the family would have put a greater strain upon their limited income. The bad state of the Cotton trade has been borne with much patience. When we compare the natural increase in Bacup in 1878, when the excess of births over deaths was 335, against the very small increase of 104 for 1910, it is manifest that we are not increasing as rapidly as is desirable.

DEATHS.

The deaths registered in the Borough were 349. Males 158, females 191, equal to a gross annual death rate of 13:92 per 1,000. The corrected deaths were 369—males 169, females 200, equal to an annual corrected death rate of 14:72 per 1,000. There were 20 deaths of residents outside the Borough, viz.: Haslingden Workhouse, 17; Rochdale Infirmary 2; Manchester Royal Infirmary, 1. The death rate for England and Wales for 1910 was 13:4 per 1,000.

The following table gives the nett mortality from all causes at the subjoined ages :---

Death	s under 1 y	ear				502	74
,,	above 1 y	ear and	under 5	years		245	74
,,	" 5	,,	,, 15	,,,		ר 20	
,,	" 15	"	,, 25	,,		15	295
,,	,, 25	,,	,, 65	"		162	290
,,	at 65 year	rs and uj	pwards			98 j	
					-		
			Total	1		369	

CAUSES OF DEATHS AT ALL AGES.

Scarlet Fever 2, Whooping Cough 8, Diphtheria and Membranous Croup 2, Typhoid Fever 2, Epidemic Influenza 2, Diarrhœa 5, Enteritis 2, Gastritis 11, Puerperal Fever 1, Phthisis 23, other Tubercular Diseases 7, Cancer 18, Bronchitis 42, Pneumonia 19, other Respiratory Diseases 3, Premature Birth 7, Diseases and Accidents of Parturition 1, Heart Disease 31, Accidents 3, Alcoholism and Cirrhosis of the Liver 2, all other causes 178.

ZYMOTIC DISEASES.

The seven principal Zymotic Diseases caused 19 deaths, viz.:—Scarlet Fever 2, Whooping Cough 8, Diphtheria 2, Typhoid Fever 2, Diarrhœa 5. The Zymotic death rate equals 0.75 per 1,000. The Zymotic death rate for England and Wales for 1910 equals 0.99 per 1,000.

The following table gives the Zymotic deaths and death rates for the past 10 years :--

	pube	J				
Year.	Zyr	notic Deat	hs.	Zymotic I	Death Rat	te.
1901		24		1.06 p	er 1,000	
1902		17		0.75	"	
1903		53		2.35	"	
1904		40		1.74	"	
1905		10		0.44	"	
1906		38		1.55	"	
1907		26		1.06	"	
1908		13		0.25	"	
1909		29		1.17	"	
1910		19		0.75	,,	

The Zymotic death rate is fairly satisfactory. In 1909 there were 29 deaths, of these 14 were due to Measles. Of the 19 deaths for 1910, 8 were due to Whooping Cough, whilst there was only one death from this disease in 1909.

The following table gives the Monthly Returns of Infectious Diseases notified for the year 1910:---

Month	 Smallpox	Diphtheria and Membranous Croup	Erysipelas	Scarlet Fever	Typhoid Fever	Puerperal Fever	Chickenpox	Total
January	0	0	1	5	0	0	2	8
February	 0	Ő	0	23	0	0	12	35
March	 0	0	4	37	0	0	8	49
April	 0	1	0	14	0	0	8	23
May	 0	1	3	5	1	0	3	13
June	 0	3	4	2	0	0	3	12
July	 0	0	4	3	0	1	7	15
August	 0	2	2	0	2	0	2	8
September	0	0	0	0	0	0	0	0
October	 0	2	0	0	1	0	0	3
November	 0	6	2	0	0	0	0	8 2
December	 0	1	1	0	0	0	0	2
Total	 0	16	21	89	4	1	45	176

From the foregoing table it will be seen that there were 176 Infectious Diseases notified, of these 45 were Chickenpox. Excluding Chickenpox, there were 133 cases. In the first Quarter, 92 cases; Second Quarter, 48; Third Quarter, 23; Fourth Quarter, 13.

SMALLPOX.

The Borough has been free from Smallpox. There have been no cases since 1904. The Joint Hospital at Sourhall contains 32 beds; it is well equipped in every way, and always ready when required, and on my inspection during the year I found everything to my satisfaction.

VACCINATIONS.

Through the kindness of Mr. A. A. Whitehead, B.A., Vaccination Officer, I am able to give the following interesting statistics in regard to Vaccination for the past 13 years :

Year.	uccessfu cination	xemptic	on es.	Births.	Deaths under Year.
1898	 335	 195		589	 72
1899	 364	 114		543	 89
1900	 314	 96		589	 100
1901	 364	 89		485	 69
1902	 452	 51		560	 76
1903	 494	 59		548	 77
1904	 383	 68		509	 74
1905	 372	 91		503	 56
1906	 346	 122		524	 63
1907	 242	 147		541	 69
1908	 189	 220		537	 57
1909	 214	 234		479	 66
1910	 201	 234		473	 50

From this table it will be seen that Exemption Certificates have been granted in increasing numbers every year since 1902. During the present year the number granted is the same as in the previous year. Only 201 successful vaccinations are recorded, which are less by 33 than the exemption certificates for 1910. In 1903, when there was a Smallpox outbreak, there was a great increase in Vaccinations. Amongst those anxious to be vaccinated were some of the exempted ones. In that year 494 were successfully vaccinated. All over the Country the proportion of unvaccinated children is on the increase. In some districts over 50 per cent. are unvaccinated. If an outbreak of Smallpox were to occur, it is very probable that we should have a large number of cases. The unvaccinated children would contract the disease very readily, and it is quite possible that our Hospital at Sourhall would be far too small to cope with the emergency. The disease is highly infectious. In recent epidemics, some cases have been so mild as to be overlooked or mistaken for Chickenpox. During the last 13 years there have been 1,720 Exemption Certificates. Such a large number of unvaccinated persons would be a serious menac

to the Borough if Smallpox should occur, and even were they anxious to be vaccinated, some considerable time would be required for the Medical men to vaccinate so large a number.

CHICKENPOX.

This disease has been notifiable since 1903. During this year 45 cases were notified, no deaths resulting; Thirty Four patients had been vaccinated and 11 unvaccinated. No cases were notified of adult persons. In the case of an adult contracting this disease, extreme precautions are taken, for the mild forms of Smallpox and Chickenpox are in some cases very difficult to differentiate.

SCARLET FEVER.

There were 89 cases notified, and 2 deaths were registered. The death-rate was 0.08 per 1000; the case mortality 2.25 per cent. There were 5 cases notified in January, February 23, March 37, April 14, May 5, June 2, and July 3 cases. After July there was no case notified for the remainder of the year. I have never known the Borough to be free from Scarlet Fever for so long a period. The disease was of a mild type, with a very low mortality. All the cases were treated at home, as we have no Isolation Hospital, the results are satisfactory. The type of the disease is much milder than in bygone years. In my report for 1886 I recommended the "Inunction of Carbolised Oil," the advantages were, it allayed the irritation of the skin, the patient slept better, the peeling stage hastened, probably lessening the infectivity; and the short duration of illness minimising the risk of complication. For 25 years the Corporation has supplied Carbolised Oil gratis. If all cases were treated in the early stages of the disease, the risks of infection would be very greatly lessened and the mortality would be very low. In recent years medical men have been treating cases of Scarlet

Fever in the houses of the people by means of Eucalyptus Oil, and Carbolised Oil, with results that have been most satisfactory. At the Annual Meeting of the British Medical Association held in London last July, Dr. Milne, Medical Officer, Dr. Barnardo's Homes and Hospital, read a very important paper on the "Home Treatment and Prevention of Scarlet Fever." He uses pure Eucalyptus Oil rubbed over the skin, and swabs the throat with Carbolised Oil. Several medical men spoke in favour of Dr. Milne's treatment. Our experience with Carbolised Oil strongly confirms Dr. Milne's results in cases where it is early adopted. In a large Home, daily under medical supervision, cases are diagnosed in the early stages. The infectivity of Scarlet Fever appears to rapidly decrease after the first seven days, a fact which should lead parents to take early precautions to avoid the infection of the members of their families.

The following table gives the deaths for the past 10 years :---

Year.		Deaths.	Rate per 1000.
1901		3	 0.13
1902		3	 0.13
1903		7	 0.34
1904	·	1	 0.04
1905		2	 0.08
1906		0	 0.00
1907		0	 0.00
1908		5	 0.50
1909		2	 0.08
1910		2	 0.08

DIPHTHERIA.

During the year there were 16 cases notified, two proved fatal. The case mortality being 12.5 per cent. The death rate was 0.08 per 1000. In the previous year there were only 7 cases notified, but there were 3 fatal cases. The cases were of a mild type, and of the three which were treated with Anti-diphtheria Serum, one proved fatal. Thirteen were not treated with Serum, and only one died. The Health Committee provide Serum free to all medical men for use within the Borough, which has been the means of successfully treating dangerous cases in the past.

The following table gives the daths for the past 10 years :--

Year.	-	Deaths.		Rate per 1000
1901		1	1	0.04
1902		1		0.04
1903	1.1.1 Been	6		0.26
1904		1		0 04
1905		2		0.08
1906		8		0.32
1907		1		0.04
1908		1		0.04
1909		3		0.12
1910		2		0.08

During the past ten years there have been 87 notifications, which gives an average of 8.7 cases per year. The deaths were 26, giving an average of 2.6 deaths per 1000.

MEASLES.

There were no deaths registered from Measles for 1910. In the previous year there were 14 deaths.

The following table gives the deaths for the past 10 years :--

Year.	Deaths.		Rate per 1000.
1901	 5		0.22
1902	 5		0.22
1903	 30		1.38
1904	 6		0.56
1905	 0	·	0.00

Year.	Deaths.	Rate per 1000.
1906	 20	 0.82
1907	 14	 0.57
1908	 4	 0.16
1909	 14	 0.26
1910	 0	 0.00

WHOOPING COUGH

There were 8 deaths registered, 7 under 5 years of age, and one over 5 years. The death-rate averages 0.32 per 1000. We have had no serious epidemic since 1904. This disease is a serious one to infants and children under 3 years of age. Over 5 years of age, very few children contract the disease. It is therefore of the greatest importance to prevent infants from every possible source of infection. We have known cases, where from carelessness, on this point, the disease had been contracted with fatal results.

The following table gives the deaths for the past 10 years :--

Year.	Deaths.	Rate per 1000.
1901	 3	 0.13
1902	 4	 0.12
1903	 2	 0.00
1904	 24	 1.04
1905	 3	 0.13
1906	 0	 0.08
1907	 8	 0.32
1908	 1	 0.04
1909	 1	 004
1910	 8	 0.32

TYPHOID FEVER.

There were 4 cases notified and there were 2 deaths. The case mortality being 50 per cent. The death-rate per 1000 of population was 0.08. In the previous year there

12

was a serious epidemic when there were 45 cases notified of which 5 proved fatal.

The following table gives the deaths for the past 10 years :--

Year.	Deaths.	Rate per 1000.
1901	 3	 0.13
1902	 1	 0.04
1903	 5	 0 22
1904	 3	 0 13
1905	 0	 0 00
1906	 1	 0.04
1907	 0	 0 00
1908	0	0.00
1909	 5	 0.20
1910	 2	 0.08

During the past 10 years 111 cases of Typhoid Fever were notified, being an average of 11 per year, so that last year, with only 4 notifications, we were 7 below the average. The deaths for the past 10 years were 20, being an average of 2 deaths per year. The 4 cases notified were of severe type, one-half proving fatal, whilst the average case mortality for the past ten years was only about one-seventh of those notified.

DIARRHŒA.

There were 5 deaths registered. The death-rate equals 0.20 per 1000. It is very rarely that Diarrhœa ever occurs in a severe epidemic character. The ages of four of the above were as follows: -40, 63, 66, and 67 years. The comparative immunity from Epidemic Infantile Diarrhœa is probably due to the fact that the ground temperature is never high. The high temperature of the earth bears a close relationship to the prevalence of Epidemic Diarrhœa. Some have blamed the house-fly as a carrier of the disease. The evidence in this country is not very convincing. That flies

are abundant is indisputable, the conditions favouring their multiplication, also tends to further the fermentation of milk etc., which may favour Diarrhœal diseases, especially of infants. Flies are filth-carriers. Where they abound, they indicate that decaying organic matter is present, which ought to be removed. Horse manure is a favourite breeding ground for flies, and the weekly removal is desirable. When this is difficult, then, the nuisance is avoided, if some poultry are kept in or near the midden. After more than 20 years experience, I can recommend this simple method of preventing the breeding of flies and diminishing their numbers so as to obviate a nuisance.

The following table gives the deaths for the past 10 years :--

Year.	Deaths.	Rate per 1000.
1901	 9	 0.39
1902	 2	 0.08
1903	 3	 0.13
1904	 4	 0.12
1905	 3	 0'13
1906	 9	 0.36
1907	 3	 0.12
1908	 4	 0.16
1909	 4	 0.16
1910	 5	 0.50

PUERPERAL FEVER.

There was only one case notified, which proved fatal. The County Medical Officer of Health sent a lady to investigate the case. The usual precautions were taken in regard to the disinfecting of the midwifes clothing &c. before resuming her duties. There are 7 certified midwives under the Midwives' Act, 1893, in the Borough. Two are temporarily not practising.

REMARKS ON OTHER DISEASES.

TUBERCULOSIS: PHTHISIS is that form of Tuberculosis which is readily transmitted to others, other forms are not. During the year 1910 there were 23 deaths from Phthisis. This is a great increase on the previous year when there were only 14 deaths, giving a death-rate of 0.56 per 1000. The death-rate for 1910 was 0.92 per 1000. Since Dr. Koch's discovery in 1882, we know that apart from the Tubercle Bacilli there can be no Tubercular disease. We also know what are the predisposing causes, which favour the development of the disease. In recent years there has been a decrease in the mortality The public have in many ways been informed what are the causes and methods of prevention. Diseases of the Diarrhœal and Typhoid type are generally associated with the impurity and contamination of our water and milk supplies. Very much has been done in regard to lessening these diseases. In regard to Phthisis and Respiratory diseases, these diseases are prevalent where impure and filthy air exists. Until something is done to lessen the smoke in our great centres of industry, we shall have to pay the penalty in sickness and death. We strongly urge the "Open Window" for our bedrooms, but the air, especially in winter is so heavily charged with soot &c., that one third of the sunshine is shut out, and consquently we suffer very much from the depredations of disease germs which are destroyed by solar light, and its disease destroying effects on disease germs. One has only to compare the number of deaths from Phthisis and Respiratory diseases in our filth-laden air in our Lancashire Manufacturing towns, with the towns on our Sea Coasts to see what a great contrast the effects of atmospheric conditions make. It is due to a very large extent to the fact that they have 40 to 50 per cent more of sunshine and far purer air to breathe. Electricity will probably do much to improve conditions, and (we hope that it will not be in the distant

future), to remove these evils and make life in our great industrial centres healthier and happier.

We know the Tubercle Bacilli are everywhere in our crowded towns, in the air we breathe, in much of the milk, butter, and meat we consume, The milk supplies of the country are liable to convey Tubercle Bacilli. Phthisis is not often of a rapid and fatal character. It is also wellknown that large numbers recover from Phthisis and other forms of Tubercular diseases without even the knowledge that they suffered from it. In our large hospitals where post-mortem examinations are carefully performed it tends to prove that nearly 50 per cent have died from diseases other than Phthisis who had suffered previously from Phthisis and other Tubercular diseases, and had been cured. We have for several years, noted, that, deaths from Phthisis are very exceptional in our Borough, amongst the wealthy and well-to-do classes. Nearly all the deaths occur amongst those living in houses below the rental of 5/- per week. Should a death occur from Phthisis of a person living in a house of £20 per year rental, and upwards, it is not infrequent to find the patient given to alcholism and dissipation. In this country, Phthisis, amongst the wealthy and residents in "Villadom" is being stamped out. When the Housing and Town Planning Bill, and the proposed Unemployed and Invalidity proposals become law, so that poverty and destitution are alleviated, then we may look for a great decrease of consumption. Consumption is to a great extent a preventable disease, if the wealth of the nation was subjected to wise administration, and devoted to removing the causes of "this enemy" within our borders, the need for Sanatoria would decrease, and Sanatoria, like Workhouses ought to be decreased in number and ultimately abolished. We welcome the earnest efforts of "The Nature Association for the prevention of Consumption," and believe it will do much to educate the people on this great scourge of our country. It is, however, very largely an Economic question ;

poverty and its attendant evils must be dealt with. THIS is the greatest and most difficult factor to be solved. "The Submerged Tenth" and those on the border-line, will still be the chief victims of Consumption; the healthy and strong easily resist the bacilli. ABOLISH POVERTY, and Consumption would have few victims.

Of the 23 deaths from Phthisis in our Borough, Three of the deceased were stone masons, and 11 were employed in the cotton trade, of whom 8 were weavers.

"SHUTTLE KISSING" AND ITS RISKS.

When a death from Phthisis is reported in the Registrar's weekly returns, the Sanitary Inspector visits the house and offers to disinfect the same. On December 7th a young woman died of Phthisis, Mr. Barnes, the Sanitary Inspector visited the house, when he was informed that he had better visit and make enquiries at the Weaving shed, where the deceased worked. He did so, when the following important and remarkable facts were ascertained :-- (1) That three persons had died from Tuberculosis since January last, all had worked on the same looms and shuttles. (2) That these shuttles had not been disinfected. (3) All lived in different houses. (4) The deaths were certified by 3 different doctors. (5) Only one factor common to all viz :the same looms and shuttles.

The first death occurred on January 11th, 1910, female aged 18 years, Phthisis, weaver. Second death on May 23rd, married woman, aged 30 years, weaver, Tuberculosis of the Peritoneum, 4 months duration. Third death on December 7th, female aged 24 years, weaver, Tubercle of the Lungs, 6 months duration.

The Sanitary Inspector disinfected $5\frac{1}{2}$ dozen shuttles. We published a "Caution to Weavers" to see that shuttles were thoroughly cleaned and disinfected. The Town Clerk was instructed to send letters to the Cotton Manufacturers in the Borough, stating the above facts and suggesting that on the grounds of cleanliness and the prevention of the spread of infectious diseases, that the shuttles should be cleaned at regular intervals and thus prevent the shuttle from being a disease carrier. No shuttle should be used by another weaver before being disinfected. When two per sons are using the same shuttles, as tenters or learners 'a Mechanical Shuttle Threader should be made compulsory. Also that the Sanitary Inspector would disinfect all shuttles which have been used by weavers suspected to be suffering from Phthisis.

We have seen several Mechanical Shuttle Threaders which can be successfully used by the weavers, the cost of which would not be a heavy tax on the manufacturers. The only ideal is the abolition of "shuttle-kissing." This is the only efficient safe-guard against 3 kinds of risks to which the weaver is exposed by the present system viz:- (1) Dust Diseases, due to inhaling and sucking of dust and fluff of the cotton, wool, linen, silks, etc. (2) Irritant and Toxic disease, due to the chemicals used in sizing materials, some have mechanical, irritant, and toxic effects. (3) Infectious diseases, of which Phthisis or Consumption is a type.

The Public Health (Tuberculosis) Regulations, 1908. During the year the Poor Law Medical Officers have notified two eases of paupers suffering from Phthisis, one under form A., and one under form B. Both were visited and the rooms were disinfected.

The following table gives the deaths for the past IO years :--

Year.	Deaths-	Rate per 1000
1901	 19	 0.84
1902	 27	 1.20
1903	 26	 1.15
1904	 16	 0.69
1905	 23	 1.02
1906	 16	 0.62
1907	 22	 0.87
1908	 22	 0.87
1909	 14	 0.26
1910	 23	 0.92

Other Tubercular Diseases :- There were 7 deaths, two under 5 years and 5 over 5 years

RESPIRATORY DISEASES.

These include Bronchitis, Pneumonia, and Pleurisy. There were 61 deaths, 14 under 5 years of age, and 47 over 5 years of age. The death-rate equals 2.6 per 1000. This is the lowest death-rate we have had for many years past. There were only 14 deaths under 5 years. This may be partly due to the fact that many mothers, owing to shorttime in the cotton trade, have been compelled to stay at home and nurse their children. We know there is a great danger in taking infants from a warm bed to be nursed at a neighbour's house. We have had rather fewer black fogs, and this probably accounts for the lower death-rate from The evils of "Smoke" are not fully Respiratory diseases. realised by the Sanitary Authorities. The amount of preventable sickness and mortality due to smoke and other impurities cannot be estimated. In Lancashire the evils will have to be dealth with by a Conference of Sanitary Authorities; much can be done by combination. There are many ways of dealing with these evils.

INFLUENZA.

There were only 2 deaths registered, both over 5 years of

age. The death-rate equals 0.08 per 1000. There has been no serious epidemic of Influenza.

Year.	Deaths.	Rate per 1000.
1901	 2	 0.08
1902	 2	 0.08
1903	 2	 0.08
1904	 6	 0.26
1905	 1	 0.04
1906	 2	 0.08
1907	 1	 0.04
1908	 10	 0.40
1909	 7	 0.58
1910	 2	 0.08

The following table gives the deaths for the past 10 years :--

CANCER AND MALIGNANT DISEASE.

There were 18 deaths registered. The death-rate equals 0 72 per 1000. In the previous year there were only 8 deaths from this terrible disease. Much research work is being done in this and other countries, with a view to discovering the causes and treatment of this disease. Up to the present we are baffled. In regard to Phthisis we know how it spreads and how to prevent its ravages. Every decade finds it a lessened factor in our mortality. But Cancer seems to be more prevalent each year.

INFANTILE MORTALITY.

There were 50 deaths under one year, giving a deathrate of 105 per 1000 births. In England and Wales for 1910 it was 106 per 1000 births. Of the 50 deaths, 48 were legitimate, and only two illegitimate children. The Infantile Mortality is the lowest ever recorded. This may be due to the short time in the mills, and the mothers being able to attend to their homes. Many of the deaths were of a preventable type.

We have had "Cards" on "Feeding and Care of Infants" to be placed in Libraries and other places; also Leaflets on "How to bring up a Baby." These have been, by the kindness of Mr. Edgar Smith, the Registrar, given to the parents when registering births. We have neither Day Nurseries nor Lady Visitors. There are, however, two Queen's Nurses who do most valuable work, especially amongst the sick poor. Their influence, in many ways, has an educative value in sick-nursing and domestic hygiene.

GENERAL REMARKS.

The Physical and Geographical conditions of Bacup have been given in previous reports.

The chief occupations are various branches of the cotton industry, brick-making, stone quarries, collieries, slipper trade. In connection with the stone quarries the men are liable to accidents. Men who work underground for stone are liable to bronchial affections and fibroid phthisis. During the year three died of fibroid phthisis.

HOUSE ACCOMMODATION.— The house accommodation more than meets the demand. Owing to the new houses having modern improvements, many of the old houses are empty. Landlords have also had to improve and modernise their houses. There are a great many back-to-back houses. We are recommending landlords to convert them into through houses. These houses are nearly all substantially built of stone, and many of them have larger rooms than are found in some of the new houses. Most of the streets are paved, flagged, sewered, and channelled. There are still a few streets that are unpaved. All the new houses are built according to Bye-Laws.

Six old houses have been voluntarily demolished.

No action has been taken under Part I., II., and III. respectively of the "Housing Clauses Act," no necessity having arisen.

WATER SUPPLY.—The Corporation have completed the New Reservoir at Cowpe, so that the Borough has an ample and most excellent water supply. Since the new supply has been opened there have been many new consumers. There are over 2,000 houses still supplied from private sources. We know many of them are liable to pollution from surface washings, from manured fields, &c., also that some are not only suspicious, but insufficient.

LEAD POISONING.—Cases of lead poisoning from Water Pollution are very rare. Only two cases were reported during the year. One was from a private supply, derived from a well, in the shale of the mill-stone which, though rather hard, a slight trace of lead was found. The pipes were of lead. This matter was referred to Mr. Elce, A.M.I.C.E., Water Engineer, to lay on the Town's water. The other case was where the people used the Town's water, but no trace of lead could be detected. In this house there was no hot-water tap.

THE DANGER OF USING WATER FROM HOT-WATER TAP.

Many people know there is some danger of lead-poisoning if water is taken from the hot-water tap. I fear some through ignorance, and others to save time in boiling water, fill their kettles from the hot-water service. Several times I have detected over a grain of lead per gallon. It is most important that precautions be taken to avoid this risk. In addition, house-holders should run off a little of the water which has been standing in the pipe over-night, before filling their kettles in the morning.

DAIRIES, COWSHEDS AND MILKSHOPS .- There are 130 Cow-

keepers and Milksellers. During the year 131 inspections were made. Three applications for Registration as Cowkeepers and nine for Milksellers were made, these were granted. It will be seen from the Sanitary Inspector's Report that much has been done to improve the Sanitary conditions of the Cowsheds and Dairies. Much remains to be done, as many of the Cowsheds were built when the importance of light and ventilation were not considered of much account.

CLEAN MILK.

We have strongly urged the importance of a "Clean Milk Supply." The public have a right to have their milk free from any dirt, &c., due to negligence. In order that each Dairy farmer should have a standard for ensuring the supply of "Clean Milk," the Town Clerk was instructed to send to each Dairy farmer in the Borough a list of rules to be observed. We know that in some homes the consumer is very careless, and frequently the milk is contaminated by the use of dirty vessels, and an unsuitable place to store it. Milk is left uncovered so that it is polluted by the dust, flies, and odours from paraffin oil, &c. We got a large number of leaflets, "To housewives and all consumers of milk," on how to keep milk clean. Also leaflets for milksellers.

Through the Lancashire County Council we secured the services of Miss Myerscough, who gave an excellent lecture on the "Manipulution of Milk." Invitations were sent to all the Dairy farmers in the Borough. There was a fair attendance. Many valuable suggestions were made. One of the most practical was the use of "Cotton-wool" filter. It is far superior to the ordinary muslin filters. We strongly advise this filter.

TUBERCLE BACILLI IN MILK.

Owing to the prevalence of Tuberculosis in cows, it is well to boil all milk before using it.

"MEAT SAFE A GREAT DESIDERATUM."

There are very few cottages where there are suitable places to store milk, meat, &c. It is almost impossible to keep milk, &c., free from dust, dirt, and flies. In the planning of new houses, there should be a "Meat Safe" provided. The cost would be nominal. There is an excellent "Cottage Meat Safe" to be had for about 5/-, suitable for cottages. It could be easily made a fixture to the house. I would recommend property owners to provide it.

SLAUGHTER HOUSES.—There are 17 on the register. These have been regularly visited and found in a satisfactory condition. Some are in a congested area and not structurally adapted for the purpose. A public Abattoir would be the best remedy.

INSPECTION OF MEAT.—The Market ground has been visited regularly. No seizures of unsound meat or food were made.

SEWERS.—The Borough is well drained and sewered. Since the extensions in Rockliffe and Sandfield districts were completed, many connections have been made. The *method* of disposal and treatment is by chemical precipitation, land filtration and coke breeze filters and sprinklers at the Joint Works at Ewood Bridge.

The question of the pollution of the rivers and streams is under the Mersey and Irwell Rivers Board. That portion of the river Irwell between Bull's Head Bridge and St. John's Sunday School, a length of about 300 yards, has been arched over. This is not only a great improvement to the town, making this one of the widest and best streets in the Borough, but also preventing persons throwing ashes, slops, and other filth into the river, making the river in summer time little better than an open sewer. OFFENSIVE TRADES.—There are only three, Tripe boilers. Their premises have been kept in a satisfactory condition

EXCREMENT DISPOSAL.—The Water-carriage and Pail systems are in vogue. We have 2,570 pails; privy middens, 84; fresh water closets, 420; waste water closets, 130. During the year 16 privy middens have been converted to W.C.'s, and 9 to pails. In some places we are unable to fix W.C.'s. 61 pails were converted to W.C.'s. The difficulty of dealing with night-soil becomes more pressing every year. We are glad that a Sub-Committee is appointed to see if the conversions cannot be pushed forward at a greater rate. It is intended to allow one W.C. free. This will be an inducement, together with the offer to pay half the cost of conversion, not exceeding £2.

REMOVAL AND DISPOSAL OF HOUSE REFUSE.—This work is done almost entirely by our own scavengers. On the whole it is well done. It is removed weekly. The refuse is deposited on tips. This method is unsatisfactory if houses are anywhere near. A Refuse Destructor would be one way of dealing with this question. We have a great deal of moorland where tips would be no nuisance This method is far cheaper than a Destructor. The difficulty has been the cost of haulage. Possibly the Mono rail system, worked by electricity, might be available in the near future.

NUISANCES.—From the Sanitary Inspector's Report which is annexed, it will be seen that a great deal of satisfactory work has been done.

PUBLIC CONVENIENCES FOR WOMEN.

It is generally admitted that it is not right that women should have no public convenience without having to pay. During the year one W.C. has been made free. We are glad to note that this injustice is being removed by some of the more progressive towns. HOUSING AND TOWN PLANNING ACT, 1909, AND HOUSING (INSPECTION OF DISTRICT) REGULATION, 1910.

The Sanitary Inspector was appointed as the Officer of this Anthority, acting under the direction of the Medical Officer of Health, for the purpose of the said Regulations. We have made a beginning, and have begun with inspection of some cellar dwellings and back-to-back houses. We have inspected 9 back-to-back houses and 5 cellar dwellings. These were afterwards visited by the Health Committee. It was resolved that the 5 cellar dwellings be closed, and the necessary repairs be done in the other houses to make them habitable.

There can be no doubt that very much depends on the tenants as to the healthiness and cleanliness of the home. Some tenants would make the best dwelling a dirty slum. We found some making the kitchen the sleeping-room, although there was a large bedroom, of about 1,800 cubic feet. Already I can see that the working of this Act will be productive of great good. It is making other tenants look after their homes. Much more soap and water are being used, and we find the walls are lime-washed, &c., &c.

SCHOOLS.—All the Elementary Day Schools have been inspected. The sanitary condition is fairly satisfactory. There are yet four schools where there are pail closets. I have again recommended that these, where practicable, be converted to the water-carriage system. Now the new reservoir is open, the work need not be delayed. The new Northern School has been opened during the year, so that Heald School is closed. This school has pail closets. The New School is water-carriage. There are 11 schools with 17 departments.

During the year the schools have been disinfected by spray. Also sanitary sawdust and liquid disinfectants have been supplied to the schools. ISOLATION HOSPITAL. — The proposal for a Joint Infectious Hospital for the three Rossendale Boroughs is being considered. The Bacup Corporation have appointed five members of the Council to meet Representatives of the Rawtenstall and Haslingden Borough to a Joint Conference to consider this question.

STEAM DISINFECTOR AND CLEANSING STATION. - Through the generosity of His Worship the Mayor (Alderman J. H. Maden), we have one of the best equipped Steam Disinfector and Cleansing Station in the Country. It supplies a longfelt want. Its extreme importance was pressed upon us by the results of the "Medical Inspection of Children." The verminous condition of some of the children was pitiable. We found that when the children were cleansed and their clothes disinfected, they returned in a few days just as verminous as before. We found that their bedding, &c., were verminous In some cases we had to destroy the mattresses. We shall now be able to cleanse the children, disinfect their clothes, bedding, &c. This will greatly benefit the children and also assist the ratepayers, as we suffered considerable loss by their absence from school.

THE COMMON LODGING HOUSES.—These are dealt with by the Chief Constable. His report is annexed.

NOTIFICATION OF BIRTHS ACT, 1907.—This question is still under consideration by a Sub-Committee. If this Act were adopted it would be necessary that a nurse be appointed, if the purposes of the Act were to be of practical value.

COMPULSORY NOTIFICATION OF OPHTHALMIA.—This has been adopted. Provision has also been made for free medical attendance where the parents are unable to pay. In these cases we shall, no doubt, have the valuable help of the two Queen's Nurses, who have given their services, with great benefit in similar cases. There can be no doubt this Act is one of the greatest importance in preventing blindness. Owing to parental neglect many have suffered.

ANTHRAX.—On November 22nd, the Home Office reported that a young man living in Bacup was suffering from Anthrax. The case had been notified to the Home Office by a local doctor. From enquiries we found that the patient had probably contracted the disease where he had been working, in a Felt and Woollen Factory. The disease had attacked the face, "Malignant Pustule." He was sent to an Isolation Hospital, and made a good recovery.

EXTERMINATION OF RATS.—The Town Clerk sent me the Circular which he had received from the Board of Agriculture and Fisheries, on the destruction of rats. That rats are filth carriers, and in some Countries a serious menace to the public health as "disease carriers" we have ample proof. In our Borough we have little or no evidence on the latter point. Their presence in or about a house is a "danger signal," as their holes frequently lead to drains, in this way sewer-gas enters. The Rat Virus we have found most effective for their destruction. It would be well if all Sanitary Authorities would undertake this destruction in their own districts.

SMOKE NUISANCES.—Thirty observations, each of a halfhour's duration, were made. The average number of minutes of black smoke emitted was four per half-hour. The highest number being 13 minutes. There can be no doubt that there is great carlessness in firing, that the air is greatly polluted, and that there is great waste of fuel. If one or two of the worst offenders were prosecuted, the evils would be lessened.

INSPECTION OF THE BOROUGH.—We have inspected the Borough and have taken action to remove nuisances and insanitary conditions. From the Sanitary Inspector's Report it will be seen that much valuable work has been done. I have in Mr. Barnes a most alert and energetic assistant.

THE MADEN PUBLIC BATHS.—We have well equipped Baths. There are Turkish and Vapour Baths. Also two Swimming Baths, and Slipper Baths. The Slipper Baths ought to be much more largely used, as there are few houses with hot Slipper Baths. The cost of a Slipper Bath is only 2d. with soap and towel. We are glad to know that the children in the Elementary Schools are being taught the art of swimming. Bacup has turned out some most excellent swimmers, who have made the town known throughout the swimming world.

I am, Gentlemen,

Yours obediently, JOHN BROWN, M.O.H., M.D., D.P.H. Vict. Univ.

Burwood House, Bacup, January, 1911.

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CONTRACT 1 C	aths at a longing District.	Rate.		19:34	16.18	16.40	19.05	16.81	14.66	15.20	19.91	15.27	15.61	16.51	14.72
SOOTATIV T	Nett Deaths at a Ages belonging t the District.		Number	472	364	369	439	381	330	371	407	376	384	389	369
T OWN ALAT	l in tutions District.	tered	Deaths o Public Public Deyond t								23	19	27	:	20
DAINOG	ni in in	tered lnstit	Deaths of regis Public] in the	:					5					: 	
I DIVE I DI DI	in the		Total Dea Institut											:	:
	S THE	Ages.	Rate.	19.34	1678	16.40	19.05	16.81	14.66	15.20	15.71	14.63	14.67	:	14.71
	TAL DEATH STERED IN '	At all Ages	Number.	472	364	369	439	381	330	371	385	360	361	373	349
10 00110	TOTAL DEATHS REGISTERED IN THE DISTRICT.	nder 1Year of Age.	Rate per 1000 Births registered.	169	142	135	139	145	111	120	127	104	133	132	105
	REC	Under 1Yc of Age.	Number.	100	69	76	77	74	56	63	69	56	64	70	50
	Births.	Rate		24.13	24.11	24.88	24.52	22.19	22.35	21.49	22.08	21.83	19-47	22.71	18.84
	BIR		589										527	473	
	Population estimated to Middle of each Year.			24400									24600	23500	1910 24600
	Year.				1901	1902	1903	1904	1905	1906	1907	1908	1909	Averages for years 1900-1909.	1910

TABLE 1.-VITAL STATISTICS OF WHOLE DISTRICT DURING 1910 AND PREVIOUS YEARS.

and the second second				
Year.	Population estimated to middle of each Year.	Births Registered	Deaths at all Ages.	Deaths under 1 Year.
1900	24400	589	472	100
1901	22500	485	364	69
1902	22500	560	369	76
1903	22500	552	439	77
1904	22500	509	381	74
1905	22500	503	330	56
1906	24400	524	371	63
1907	24500	541	407	69
1908	24600	537	376	56
1909	24600	479	384	64
Averages of Years 1900 to 1909	23500	527	389	70
1910	24600	473	369	50

TABLE II.-VITAL STATISTICS BOROUGH OF BACUP in 1910 and Previous Years.

						Carlo Carlos	Contraction of the					
		CASES NOTIFIED IN WHOLE DISTRICT.										
Notifiable Disease			At Ages-Years.									
Notifiable Diseas		At all Ages.	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards				
Small-pox												
Cholera												
Diphtheria (includ Membranous Cro	ling up)	16		5	11							
Erysipelas		21	2	3			15	1				
Scarlet Fever		89	1	24	57	3	4					
Typhus Fever												
Enteric Fever		4				1	3					
Relapsing Fever												
Continued Fever												
Puerperal Fever			•1				1					
Plague												
Varicella		45	5	22	18							
Totals		175	8	54	86	4	23	1				

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TABLE III.-CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1910.

	Deaths in or belonging to Whole District at Subjoined Ages.										
CAUSES OF DEATH.	All Ages	Under 1 year	1 and under 5	the second s	15 and under 25	25 and under 65					
Small-pox					·						
Measles											
Scarlet Fever	2	1		1							
Whooping Cough	8	3	4	1							
Diphtheria (including					Top .						
Membranous Croup)	2			2							
Croup											
(Typhus											
Fever Enteric	2					2					
Other continued											
Epidemic Influenza	2					2					
Cholera											
Plague											
Diarrhœa	5		1			2	2				
Enteritis	2	1				1					
Gastritis	14	3		1		8	2				
Puerperal Fever Erysipelas	-										
Phthisis (Pulmonary											
Tuberculosis	23			1	6	14	2				
Other tubercular diseases		1	1		2	3					
Cancer, Malignant Disease						9	9				
Bronchitis	42	5	8		1	18	10				
Pneumonia	19		1	1	1	12	4				
Pleurisy											
Other Diseases of	1 Sec. 2 1	120124									
Respiratory Organs	3		2	1							
Alcoholism	2					2	A market				
Cirrhosis of Liver)						-					
Venereal Diseases	1			1							
Premature Birth	7	7									
Diseases and Accidents						-	Danie C.				
of Parturition	7				2	5					
Heart Diseases	31	1		3	1	21	5				
C. isides				1		1 1	1				
All other causes	168	28	7	7	2	61	63				
m other causes	100	20	1	1	4	01	05				
Care and the state of the											
All Causes	369	50	24	20	15	162	98				
					1		1				
			and the second division of the second divisio	and the second se							

TABLE IV.—CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1910.

TABLE V.-INFANTILE MORTALITY

DEATHS FROM STATED CAUSES IN WEEKS AND)

C.	AUSE OF DEATH.	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month
All Causes	(Certified					
in cuucco	Uncertified	1				1
	Inquest					
			0			1
	Small-pox					
Common	Chicken-pox Measles					
Infectious -	Scarlet Fever					
Diseases	Diphtheria (including		-		Re-	
	Membranous Croup)					
	Whooping Cough					
	Diarrhœa, all forms					
Diarrhœal Diseases	Enteritis, Muco-enteritis, Gastro-enteritis Gastritis, Gastro-intestinal			1		1
	Catarrh					
	(Premature Birth	7				7
Wasting	Congenital Defects	1			1	2
Diseases	Injury at Birth					
Diocuber	Want of Breast-milk, Starvation					
	Atrophy, Debility, Marasmus (Tuberculous Meningitis	1	1	2	1	- I
Tuberculous	Tuberculous Meningitis					
Diseases	Tabes Mesenterica					
	Other Tuberculous Diseases	Concernance of				
	Erysipelas					
	(Syphilis					
	Rickets					
	Meningitis (not Tuberculous) Convulsions			1	1	2
Other	Bronchitis					
Causes	Laryngitis	and the second second				
	Pneumonia					
	Suffocation, overlying					
	Other Causes	2			1	3
	'Inquest					
an in	38 1 63 1 64 1 65 400	12	1	4	4	21

DURING THE YEAR 1910.

MONTHS UNDER ONE YEAR OF AGE.

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
						 					49 1
							···· ··· 1				 1
		 1 		 1 		 	 1 	···· ···			 3 2
	1 		···· ··· ···	1 	···· ····	1 	···· ··· ···		 	 	3 7 2
3 1 			2 	1 	···· ···	···· ··· ···			1 		12 1 ^e
	··· ··· ··· 1	··· ··· ··· 1	···· ··· 1	··· ··· ··	···· ··· ···	 1	··· ··· ··· 1 1	···· ··· ···	···· ··· ···	···· ··· ··· ·	 4 5
	 1	 1	 1	 1	··· ··· ···	 1		···· ··· ···	 1	• • • • • • •	 9
5	3	3	4	4		3	4		2	1	50

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