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#### Contributors

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#### PUBLIC HEALTH ACT, 1875

# ANNUAL REPORT

# THE HEALTH

ON

OF THE

URBAN SANITARY DISTRICT OF THE

BOROUGH OF BACUP,

DURING 1901, .

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

Medical Officer of Health.

PRESENTED JANUARY, 1902.

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



## THE HEALTH COMMITTEE

CONSISTS OF THE FOLLOWING MEMBERS :

THE MAYOR (Ex-Officio).

Chairman-MR. ALDERMAN MADEN, J.P.

Vice-Chairman- " COUNCILLOR HOWORTH.

" COUNCILLOR AKED.

, COUNCILLOR J. BRIERLEY.

" COUNCILLOR COLLINGE.

" COUNCILLOR CROPPER.

" COUNCILLOR HEYS.

" COUNCILLOR J. H. HOYLE.

" COUNCILLOR J. A. LAW.

,, COUNCILLOR DAVID LORD.

,, COUNCILLOR E. LORD.

" COUNCILLOR SMITH.

" COUNCILLOR STEWART.

" COUNCILLOR WORSWICK.

# MEDICAL OFFICER'S ANNUAL REPORT FOR 1901.

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

GENTLEMEN,

I have the honour of presenting you with my Annual Report of the sanitary condition and vital statistics of the Borough of Bacup for the year 1901.

The area of the Borough is 6,400 acres. The area covered by water is so small (if we exclude the course of the river Irwell) that it may be ignored. The area of the two reservoirs is 9 acres. The area of the reservoirs and lodges of the various mills cannot be much.

The population at the census for 1901, is stated to be 22,505, inhabited houses 5,284, the average number of persons per house being 4.2. In 1891, the average per house was 4.4 persons.

During the ten years the population has decreased 993 or in round numbers 1000, being an average decrease of 100 per year. I have estimated the population in the middle of 1901 to have been 22,500.

The rateable value of the Borough for 1901, is  $\pounds 83,104$  5s. 0d., against  $\pounds 79,208$  for 1891, being an increase of nearly  $\pounds 4,000$ .

#### BIRTHS.

During 1901, there were 485-Males, 258; Females, 296, which is at the rate of 21.11 per 1000. There were 12 illegitimate births—Males 4; Females 8. The birthrate for England and Wales was 28.5 per 1000 for 1901. The natural increase of the population, due to excess of births over deaths is only 121 for the year. The number of births is the lowest recorded, being 103 less than the average birth-rate for the past ten years.

#### DEATHS.

There were 364 deaths registered—Males 176; Females 188, which is at the rate of 16.18 per 1000. This is the lowest death-rate recorded for many years. The deathrate for England and Wales for 1901, was 16.0 per 1000.

The following table gives the number of births and deaths for the past ten years :--

Low	Providenci se in	BIR	CHS.	T	OTAL I	DEATH	S.
Year.	Population estimated				i Year Age.	AT AL	L AGES.
Ye	to middle of each year.	Number	Rate.	Number	Rate per 1000 Births Register'd	Number	Rate.
1891	23,500	661	28.12	97	147	505	21.48
1892		589	25.06	105	177	478	20.34
1893	23.500	655	27.34	126	207	424	17.70
1894	23,500	581	24.72	71	122	409	17.40
1895	23,500	543	23.02	90	165	451	19 19
1896	23,500	596	25.36	126	211	451	19.19
1897	23,500	542	23.00	100	184	466	19.40
1898	24,400	589	24.13	72	121	422	17.30
1899	24,400	543	22.68	89	163	398	16.62
1900	24,000	589 *	24.13	100	169	472	19.34
Average for years, 1891-1900.	23,770	<b>5</b> 88·8	24.75	97.6	166.6	447.6	18.79
1901	22,500	485	21.11	69	142	364	16.18

The following table gives the Mortality for all causes at the subjoined ages :---

Deaths	unde	r 1	year				69	) Total under
,,	abov	e 1	year	and	under	5 yea	ars 39	§ 5 years, 108
"	,,	5	"	,		.5 ,	, 17	) over
,.		15	,,	,	· · · · · · · · · · · · · · · · · · ·	5 ,	, 20	5
,,	,	25	,,	,"		5 ,	, 122	years
"	••	65	,,	and	upwar	rds	. 97.	) 256.
			Tota	ıl			364	

#### CAUSES OF DEATH AT ALL AGES :--

Measles 5; Scarlet Fever 3; Whooping Cough 3; Diptheria 1; Croup 2; Typhoid Fever 3; Influenza 2; Diarrhœa 9; Ententis 13; Phthisis 19; Other Tubercular diseases 9; Cancer and Maglignant diseases 13; Bronchitis 44; Pneumonia 31; Pleurisy 1; Other Respiratory diseases 4; Alcoholie and Anlons of Liver 1; Diseases and accidents of Parturden 2; Heart disease 28; Accidents 7; Suicides 1; Marasmus 9; Uncertified 11; all other causes 143; Total for all causes 364.

#### ZYMOTIC DISEASES.

There were 24 deaths registered from the seven principal Zymotic diseases and were as follows:—Measles 5; Scarlet Fever 3; Whooping Cough 3; Diphtheria 1; Enteric Fever 3; Diarrhœa 9. The Zymotic death-rate is only 1.06 per 1000. The Zymotic death-rate for England and Wales for 1901, is 2.05 per 1000.

The following table gives the Zymotic deaths and Zymotic death-rate per 1000 of the population for the past 10 years :—

Year.		Zyn	notic deat	Zymotic death-rate.		
1892			23		0.97	per 1000
1893			50		2.11	· ,,
1894			37		1.57	
1895			16		0.68	,.
1896			28		1.19	"
1897			51		2.93	,,
1898			24		0.98	"
1899			42		1.72	"
1900			55		2.25	,,
1901			24		1.06	"

#### SMALL-POX.

It is very satisfactory to be able again to report that no case of this disease has been reported during the year. The Sourhall Hospital has been in constant readiness if it had been required.

#### VACCINATION.

The Vaccination Bill passed in 1898 which substituted Glycerinated Calf Lymph for arm-to-armVaccination and domicillary vaccination instead of fixed stations, has been a great success in this Borough. Through the kindness of Mr. A. A. Whitehead, Vaccination Officer, I am able to give the following figures in tabular form :—

	Successful	Exemption		Deaths under
Year.	Vaccinations.	Certificates.	Births.	1 year.
1897	285		542	100
1898	305	195	589	72
1899	364	114	543	89
1900	314	96	589	100
1901	364	89	485	69

There still continues to be a marked decrease in claiming exemption certificates. Last year we had the lowest number of births recorded, being 103 less than the average for the past 10 years. The births were 485, there were 69 deaths under 1 year, of these, 31 were 3 months old and under, and would, therefore, not have been vaccinated. It is evident that many persons who obtain exemption certificates have their children vaccinated.

#### **RE-VACCINATION.**

When an epidemic of Small-pox occurs, there is a great rush to be re-vaccinated. The Sanitary Authority

however, is dependent upon the Poor Law Authority for this most effective means of stamping out the disease. It is an anomally which ought to be removed, and the Vaccination Act administered by the Sanitary Authority.

#### SCARLET FEVER.

During the year, there were only 82 cases notified against 395 in 1900. The disease never assumed a severe epidemic character. There were cases in each month of the year. The lowest number being 2 in September, and the highest 15 in March, there were only 3 deaths, all under 5 years of age, against 22 in 1900. The death-rate for 1901 was 0.13 per 1000. The case mortality is 3.6 per centage of attacks.

The Notification Act has helped us, as we were able to give the School Authorities immediate information where the disease existed. Having no Isolation Hospital nor Steam Disinfector, we were unable to do all that we could have desired. Where practicable, we used the Formic Aldehyde Vapour for disinfecting the houses.

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

Year.	Deaths.	Rate per 1000	
1892	 4		0.16
1893	 1		0.04
1894	 1		0.04
1895	 2		0.08
1896	 2		0.08
1897	 7		0.29
1898	 1		0.04
1899	 9		0.40
1900	 22		0.90
1901	 3		0.13

#### DIPHTHERIA.

Six cases were notified during the year, only one death was registered, which was a child under 1 year. The death-rate equals 0.04 per 1000. The case mortality is 16.16 per centage of attacks.

Diphtheria is a Disease which never assumes an epidemic character in this Borough.

Two years ago the Council made arrangements to have all cases of Diphtheria tested Bacteriologically for all the Medical men practising in the Borough, free of cost. During the year no one has availed himself of this privilege. It is most desirable that the first suspected case should be tested, some forms of sore throat closely simulate Diphtheria, and are not readily diagnosed.

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

			Rate per
Year.	Deaths.		1000 *
1892	 0		0.00
1893	 2		0.08
1894	 2	,	0.08
1895	 3		0.12
1896	 7		0.29
1897	 5	···	0.21
1898	 2		0.08
1899	 2		0.08
1900	 3		0.12
1901	 1		0.04

#### MEASLES.

There were five deaths registered, all under 5 years of age. The death-rate equals 0.22 per 1,000. The death-rate for England and Wales for 1901 equals per 1000.

During the months of October, November, and December, there was an epidemic of Measles. The disease was of a mild type, comparatively few cases were under Medical treatment. We<sup>\*</sup><sub>x</sub>did not deem it necessary to close any of the Day Schools. We are again much indebted to the School Board Visitor for the valuable and prompt information that he gave us. The Sanitary Inspector visited the houses and disinfectants were used

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

		Rate per
Year.	Deaths.	1000.
1892	 1	 0.04
1893	 20	 0.85
1894	 10	 0.42
1895	 1	 0.04
1896	 1	 0.04
1897	 37	 1.57
1898	 1	 0.04
1899	 10	 0.40
1900	 9	 0.36
1901	 5	 0.22

#### WHOOPING COUGH.

There were 3 deaths, all under five years of age. The death-rate equals 0.13 per 1000.

During the year we have had no serious epidemic of Whooping Cough. This disease is too often treated far too lightly, and rarely do persons take any precautions to prevent the disease from spreading. Children suffering from the disease are allowed to mix with others, The following table gives the deaths for the past 10 years :--

Year.		Deaths.	Rate per 1000.
1892		7	 0.29
1893		8	 0.34
1894		5	 0.21
1895		4	 0.17
1896		12	 0.51
1897	1	2	 0.08
1898		10	 0.40
1899		1	 0.04
1900		12	 0.49
1901		3	 0.13

#### ENTERIC FEVER.

There were 3 deaths, all over five years of age. The death-rate equals 0.13 per 1000. The Fever death-rate for England and Wales for 1901, is per 1000. During the year there were 9 cases notified, three proved fatal which gives a case mortality of 33.3 per cent. In 1900 it was only 14.2 per cent of cases notified. The type of the disease must have been more severe, or what is more probable, that some mild cases were not diagnosed. The proportion of deaths to cases notified is about double what is the average for England and Wales.

There have been no cases that could be traced to water or milk supplies. In only one case was there any local sanitary defect that could be supposed to be the cause of disease. In another case, the disease was contracted whilst on a visit to a sea side resort.

### DIRECT INFECTION.

In two cases, there are reasons for believing that the infection was due to a previous case in the house. The infection being due to contamination of the food, or the air. In one house there had been 3 cases previously. In the other, the mother had the disease. Had the first cases been removed to an Isolation Hospital there can be little doubt that no other cases would have followed. Disinfectants were freely used and special pails provided.

BACTERIOLOGICAL DIAGNOSIS OF TYPHOID FEVER.

In only one case was the test used and this was negative.

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

		Rate
Year.	Deaths.	per 1000.
1892	 3	 0.12
1893	 2	 0.08
1894	 18	 0.75
1895	 2	 0.08
1896	 1	 0.04
1897	 55	 0.20
1898	 5	 0.50
1899	 4	 0.16
1900	 2	 0.08
1901	 3	 0.13

#### DIARRHŒA.

There were 9 deaths, all under five years of age. The death-rate equals 0.39 per 1000. The death-rate for England and Wales for 1901, is per 1000. Under Diarrhæa, we now include Epidemic Ententis; Zymotic Ententis or Epidemic Diarrhœa. During the year no deaths occurred from Diarrhœa among adults. Seven of the deaths were infants under 1 year. Many of the cases are due to improper diet, especially among infants not suckled at the breast.

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

Year.	Deaths.	Rate per 1000
1892	 7	 0.29
1893	 17	0.72
1894	 1	 0.04
1895	 4	 0.17
1896	 5	 0.21
1897	 3	 012
1898	 5	 0 21
1899	 15	 0.61
1900	 7	 0.58
1901	 9	 0.39

#### REMARKS ON OTHER DISEASES.

PHTHISIS.—There were 19 deaths, all over five years of age. The death-rate equals 0.84 per 1000.

It is satisfactory to report a decrease in the number of deaths from Phthisis. It is below the average for the County.

Very great interest has been taken in the prevention of Phthisis, and other forms of Tuberculous disease. It is accepted as a fact, that the greatest factor in spreading Phthisis is the tuberculous sputum of man, that it is most important that indiscriminate spitting should be stopped. For many years we have strongly urged that all Tuberculous sputum should be burnt, and we have reason to believe that it is carried out in most cases. During the year, the Health Committee has caused notices calling attention to the danger of indiscriminate spitting, to be placed in the tramcars, vehicles, workshops, mills, factories, The importance of this matter is now become very &c. generally appreciated. It is now well recognised, that the disease is due to a definite microbe, and that much can be done to prevent the spread of the disease. In families where there may be any hereditary tendency to Tuberculosis, it is most important that all conditions which predispose to the disease should be avoided, such as overcrowding, defective ventilation, damp and dark dwellings. Persons who have any tendency to Phthisis should have occupations which are free from impurity of the air, or sedentary occupations indoors. Out-door occupations of an active character is desirable. In our Cotton Manufacturing towns this is often a difficult matter.

#### CLEANSING AND DISINFECTING ROOMS.

The Health Committee decided to cleanse and disinfect rooms where death had taken place from Phthisis.

The Sanitary Inspector has called and offered to do the disinfection, but in no case has it been accepted.

The following table gives the deaths for the past 10 years.

Year.	Deaths.	Rate
	Deatins.	per 1000
1892	36	 1.53
1893	 24	 1.02
1894	 31	 1.31
1895	 31	 1.31
1896	 22	 0 93
1897	 34	1.43
1898	 25	 1.02
1899	 14	 0.57
1900	22	 0.90
1901	 19	 0.84

#### BRONCHITIS AND PNEUMONIA.

There were 76 deaths. 27 under five years, and 66 over five years of age. The death-rate equals 3.37 per 1000.

In the previous year it was 4.61 per 1000. It is the lowest death-rate from respiratory diseases since 1889, when it was 3.11 per 1000. The death-rate for this class of disease is satisfactory when one considers the cold and damp climate and the extremes of temperature to which the mill operatives are exposed to, in going from the warm atmosphere of the mills to the open air.

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

Year.	Deaths.	per 1000
1892	 130	 5.33
1893	 101	 4.25
1894	 99	 4.09
1895	 101	 4.25

Year.	Deaths.	per 1000
1896	 111	 4.72
1897	 101	 4.25
1898	 102	 4.25
·1899	 93	 3.81
1900	 115	 4.61
1901	 76	 3.37

#### INFLUENZA.

There were only two deaths, both adults. The deathrate is 0.08 per 1000. This disease never assumed an epidemic character during the year. Most of the cases were of a mild type.

The following table gives the deaths for the past 9 years :---

			Rate
Year.	Deaths		per 1000
1893	 3		0.12
1894	 3		0.12
1895	 8	A ROLL	0.34
1896	 2		0.08
1897	 4		0.17
1898	 5		0.20
1899	 17		0.69
1900	 12		0.49
1901	 2		0.08

## INFANTILE MORTALITY.

There were 69 deaths under 1 year, which equals a death-rate of 142 per 1000 births. England and Wales for 1901 is 151 per 1000 births.

The average Infantile Mortality in the Borough for the 10 years ending 1900, was 166 per 1000 births. The Infantile mortality last year shows a considerable decrease. It will be observed that the birth-rate for 1901 is exceptionally low, being only 21.11 per 1000. The lowest ever recorded.

The high death-rate of infants falls chiefly among the working classes. The deaths, to a considerable extent are due to Improper Feeding; low vitality due to early and improvident marriages. Exposure of infants in taking out of warm beds to place out for day nursing, want of maternal care due to female labour in the Cotton Mills. In the Borough 56 per cent of the mill operatives are females.

#### GENERAL REMARKS.

The Borough of Bacup is a very hilly district. It is situated on the Western spurs of the Pennine hills. The river Irwell takes its rise at Cliviger, just outside the northern boundary of the Borough, and flows for about 5 miles through its entire length. The elevation varies from 800 to 1,450 feet above the sea level. The average number of persons per acre is 3.5, but the population is very sparse in the upland and moorland portions which consist of small dairy farms. In the central parts of Stacksteads and Bacup the population is much more dense.

The rainfall is generally rather heavy. The guage is fixed at Sheephouse, which is about 1000 feet above the level of sea. Rainfall for 1898 was 43.66 inches, 1899 was 53.88 inches, 1900 was 60.87 inches, in 1901 it was 46.08 inches.

Owing to the heavy rainfalls in flood time, the centre of the town has been liable to be flooded, causing loss of life and great damage to Shop-keepers. During the year the bed of the river has been widened in Bridge street and the floor paved. During the recent floods, the archway carried off the water and thus saved damage to tradespeople.

The Geological formation is the Millstone grit, above which are thick beds of clay. The soil is cold and damp.

HOUSE ACCOMMODATION.—The houses are built of stone, very few of brick. There is no lack of house accommodation in fairly good sanitary condition. Owing to the physical features of the Borough, it was the custom over 30 years ago to build back-to-back houses, also many are built into the hill sides. In recent years none of this class have been built. Every year many of these houses are much improved by securing more light and ventilation by putting in new windows and other alterations.

SEWAGE AND DRAINAGE.—The Sewage of the Borough is nearly complete. The Sewage at the joint Outfall Works at Ewood Bridge, is conducted on Bacterial lines. The Sewers have a good fall. There is a constant stream of spring water flowing through them, as a result, it is very rare indeed for any foul smells to arise from them. The Sewers are well ventilated.

The house drains are satisfactory. If defective they are dealt with. For a few years past, two men have been employed to remove the dirt from grids in private and back streets. in the central parts of the Borough, It conduces to the cleanliness of the streets and also to the health of burgesess.

EXCREMENT DISPOSAL.—There are very few water closets in the Borough. When the Rossendale Waterworks was taken over in 1894, there were only 94. At the end of last year these were increased to 160. Eight having been added in 1901. We have no record of the number of Water-closets in houses with private water supplies. Probably not more than 50.

WASTE-WATER CLOSETS.—These are being increased every year. Last year there were 81 Pail Closets and Middens converted to this system, against 24 in 1900.

PAIL CLOSETS.-We have about 2,500 pail closets, also about 270 tanks and cesspools and 90 mixed ashes and The pails are collected weekly or as often as excreta required. The pail-closet is better than a cess-pool, but they cause aerial contamination, as most of them are in confined back-yards and close to the kitchen doors and windows. From a health-point of view, their abolition would be a great benefit if substituted by the Watercloset. In regard to the cost to the rate-payers, the saving in expense of scavenging would be considerable. We have a large number of old houses, where we have allowed three houses to one closet, because land was not available. Many of these could not be converted to the Waste-water closet because of the depth of d ain and other reasons. In my opinion, when the New Reservoir is completed, it would be a wise policy to make no charge for one Water-closet per house. If considered too bold a policy, then, I would recommend no charge for Water closets below a certain rental. For cottages with rental from 2/6 to 4/- per week, the trough water-closet would be a good system. There is little danger of pipes being frozen, also not so much water used as in the ordinary flush cistern. Should the Council still go forward with the Waste-water closets, I would reccommend where possible, that the short shaft be used as it offers less surface for the deposit of excreta and thus less liable to be offensive.

REMOVAL AND DISPOSAL OF HORSE REFUSE -- This work for several years past has been done by our own scavengers, and gives much more satisfaction than when it was done by contractors. The larger number of houses, the ashes are collected weekly in tubs and pails. Ashpits are every year being done away with. The refuse is taken to the tips. We have no Destructor, though the matter has been under the consideration of the Council.

WATER SUPPLY.—The Corporation at present only supply 2,325 houses out of 5,284 inhabited houses. which is less than half of the population. Every year new customers are added. Last year 89 houses were connected to the main. It is on the constant principle.

SEVERE DROUGHT.—Last summer we had one of the severest droughts that I have known since 1877. Some springs dried up which were never known to fail. The need of the New Water Supply was recognised as a pressing matter. Fortunately the Water-works Committee, by great care and the consumers by being very sparing, the reservoirs gave a constant supply, until the rain came.

The water is collected by gravitation from the moors. It is filtered through limestone, and if necessary through Alumina-ferric cakes. Before it enters the mains it is passed through sand-beds and filtered. The water is hardened by the filtration and is about 5.0 degrees of hardness.

PRIVATE WATER SUPPLIES.—Owing to the severe drought many of these ran dry and much inconvenience was caused thereby. Some of these private supplies are liable to contamination in heavy rain from surface washings. No serious sickness seems to have occured. No doubt this is due to the precaution of filtering and boiling the water. When the new supply is ready many of these suspicious water supplies will be stopped. COMMON LODGINGS HOUSES.—Dairies, Cowsheds and Milk Shops are dealt with under the Chief Constable's Report which is annexed to this report.

SLAUGHTER HOUSES.—These have been kept in a fairly satisfactory condition. One new license has been granted. As I have stated in previous reports some are too small and ill adapted for the purpose. A public abattoir is needed.

OFFENSIVE TRADES.—The offensive trades have been carried out in a fairly satisfactory manner.

FACTORIES AND WORKSHOPS.-No special action has been taken in regard to these.

BAKEHOUSES.—We have 9 Bakehouses. They have been kept in fairly good condition. We have no underground bakehouses, no regular night baking, no w.c. inside or in direct communication. Cubic space varies from 450 cubic feet to 3758 each person.

SMOKE NUISANCE. - No active measures have been taken during the year to abate the nuisance.

ISOLATION HOSPITAL AND STEAM DISINFECTOR.—Both are very much needed. I trust that the Council will give these questions their serious consideration.

INSPECTION OF THE BOROUGH.—We have inspected the Borough and have taken action to remove nuisances and insanitary conditions. The sanitary conditions of the Borough is fairly satisfactory. There is little overcrowding. In 1891, the average per house was 4.4 per house. In 1901, it was only 4.2 per house. Most of the streets are well paved, sewered, flagged, channelled and lighted. One private street has been paved, flagged, &c., and some others are at present in hand.

SANITARY WORK.—The Sanitary Inspector (Mr. Mooney) gives a report of the work done in this department

PUBLIC WORKS, STREET IMPROVEMENTS, &c.—The Surveyor, (Mr. Gandy) gives a report of work done in his department.

THE MADEN PUBLIC BATHS.—There are very few Slipper Baths in private houses. In 1894, when the Rossendale Waterworks was taken over, the Company only supplied 30 houses The number now is only 63. 6 were added during the year. In regard to houses supplied from private sources, there are very few which have Slipper Baths. The Public Baths are not so well patronised as they ought to be. The charges are very low. Warm Slipper Baths with soap and towels cost 2d. As the Burgesses have not the convenience in their own houses, may I urge them to have a slipper bath once a week. It is a necessity for health and comfort, especially for the mill operatives.

I am, Gentlemen, yours obediently,

JOHN BROWN, Medical Officer of Health.

M.D., D.P.H., Vict. Univ.

Burwood House, Bacup. January 29th, 1902.

## CAUSES OF, AND AGES AT, DEATH DURING THE YEAR.

	Deaths in Whole District at Subjoined Ages.								
CAUSES OF DEATH.	All ages.	U nder 1 year	1 and under 5.	5 and under 15.	15 and under 25.				
Small-pox		·							
Measles	5	I	4						
Scarlet fever	3		3						
Whooping-cough	3	I	2						
Diphtheria and membran-				EURO P					
ous croup	I	I							
Croup	2		2						
(Typhus							••		
Fever { Enteric	3			I		2			
(Other continued									
Epidemic influenza	2			1		2			
Cholera				1					
Plague									
Diarrhœa	9	7	2				2		
Enteritis	13	4	2		2	3	-		
Puerperal fever									
Erysipelas									
Other Septic diseases	10				 I				
Phthisis	-	3	 I	3	2	-5			
Other tubercular diseases						II			
Cancer, maglignant disease	44	IO			I	8	20		
Bronchitis	21	4	58	3	3	9	4		
Pneumonia Pleurisy	1	1.7				I			
Other diseases of Respi-					and the second	12.1.1.1			
materin organo	4	I	I	I	I				
Alcholism )							200		
Cirrhosis of liver \	I					I			
Venereal diseases									
Premature birth									
Diseases and accidents of	E	1000	1	900	A. C. C. C.				
parturition	2					2			
Heart Diseases	28		1	3	I	15	9		
Accidents		I	I	I	2	2			
Suicides						I			
Marasmus	9	6	2			I			
Uncertified	II	6	I			3	I		
	221	45	34	14	.13	77	38		
All other causes	143	24	5	3	7	45	59		
All causes	364	69	39	17	20	122	97		

eaths at belonging District.		Rate.	21:48	20.34	02 71	17.40	61.61		19:40	o£.41	16.62	19 <b>.</b> 34	64.81	16.18
Nett Do all Ages 1 to the		Иитрег.	505	478	424	409	451	451	466	422	398	472	447.6	364
bilc bilc	beyond in Pub	Deaths of Registered Instiutions Dist	:		:	:		:			:	:	:	:
ients o	red in stitution	Deaths of N Registe Deaths of N Deaths D Deaths D Deaths D D D D D D D D D D D D D D D D D D D	Sec	:	:	:	· ·· ·	:				:	:	:
	di ni en	Total Death Unstitutio Distr		:	:	:	:		:			:	:	:
LERE	At all Ages.	Rate.	21.48	20.34	02.71	17.40	61.6I	61.61	19'40	17'30	16.62	19.34	18.79	16.18
	At all	Number.	505	478	424	409	451	451	466	422	398	472	447'5	364
ATI	r Year Nge.	Rate per 1000 Births Registered.	147	177	207	122	165	211	184	I2I	163	69I	166.6	142
TOTAL DE	Under of A	Number.	67	201	126	14	60	126	100	72	89	001	9.26	69
		Rate.	28.12	25.06	27.34	24.72	23.02	25.36			22.68	24'13	24.75	21.11
BIRTHS.	130	Number	199	589	655	581	543	596	542	589	543	589	588.8	485
d to	stimate sch Ye:	Population e fo slbbiM	23500	23500	23500	23500	23500	23500	23500	24400	24400	24400	23770	22500
	.я.	ХЕХ	1681	1892	1893	1894	1895	1896	1897	1898	1899	0061	Averages for years 1891-1900.	Igoi

Water) 0,400. S died cuveled 5 UN TOTTONO DISULICE III d

	Year.		Population estimated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.				
1891			23500	661	505	97				
1892			23500	589	478	105				
1893			23500	655	424	126				
1894			23500	581	409	71				
1895			23500	543	451	90				
1896	`		23500	596	451	126				
1897			23500	542	466	100				
1898			24400	589	422	72				
1899			24400	543	398	89				
1900			24400	589	472	100				
	ges of Ye l to 1900		23770	588.8	447·6	97.6				
1901			22500	485	364	69				

TABLE II.-VITAL STATISTICS IN 1901 AND PREVIOUS YEARS.

## TABLE III.—CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1901.

NOTIFICATION	OF DISEASE.	AT ALL AGES.
Small-pox		 -
Cholera		 -
Diphtheria		 6
Membranous cro	oup	 _
Erysipelas		 14
Scarlet fever		 82
Typhus fever		 _
Enterice fever		 9
Relapsing fever	·	 _
Continued fever	·	 
Puerperal fever		 
Plague		 _

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## RAINFALL AT SHEEPHOUSE.

By the kindness of Mr. R. W. Hartley, I am able to give the Rainfall for the past four years. The rain guage is fixed at Sheephouse, and is about 1000 feet above the sea level.

Month.	Inches in 1898.	Inches in 1899.	Inches in 1900.	Inches in 1901.
January	 1.83	8.94	* 5.38	* 5.38
February	 <b>4</b> ·21	2.98	10.00	6.03
March	 2.84	3.22	1.03	4.17
April	 2.40	5.48	3.54	3.20
May	 3.63	3.33	2.43	1.53
June	 3.38	2.92	6:02	2.47
July	 1.59	2.56	3.07	1.95
August	 6.59	1.53	5.95	2.68
September	 1.21	12.34	2.30	2.09
October	 6.52	3.78	7.43	3 91
November	 4.08	2.83	5.74	7.06
December	 * 5.38	* 3.97	* 7.71	* 5.63
Total	 43.66	53.88	60.87	<b>4</b> 6·08

\* Frozen-Rainfall Estimated.

#### NUISANCE INSPECTOR'S REPORT, 1901.

NUISANCES.—75 Nuisances of a miscellaneous character have been abated during the year, including the conversion of Tanks and Privy Middens to the Pail and Waste Water Closet System, the opening and cleansing of drains, &c.

SCAVENGING.—The work of Scavenging is undertaken by the Corporation Staff, and the number of loads of dry refuse, closet pails or cesspools emptied and taken away for the year, are as follows :—dry refuse, 8,365 loads, closet pails, or cesspools emptied, 53,691.

ZYMOTIC DISEASES.—The following infectious disease cases, that came under notice during the year, were Typhoid Fever 9; Scarlet Fever, 80; Diptheria, 5; Measles, 154. All these cases have been visited, disinfectants in the shape of powder and liquid have been supplied. Moreover after the patient has become quite convalescent, where fumigation can be applied, it is done by stopping up all intertices, making the room **a**irtight, and exposed to the fumes of formaline gas.

I am, gentlemen,

Your obedient servant,

THOMAS MOONEY.

#### SURVEYOR'S REPORT, 1901.

During the year 1901, 71 Building plans have been submitted to the Corporation, 8 of these plans were disapproved, and the 63 that were appoved include : - 7 Houses.

2 Stables.

9 Piggeries.

2 Alterations to Farms.

3 Alterations to Shops, &c.

4 Alterations to Houses.

1 Alteration to Mill.

5 Sculleries and Bathrooms.

4 Engine Houses and Smithy.

1 Brick Kiln.

28 Pail Closets.

5 Waste Water Closets.

And several erections in Back Yards of Houses.

Five houses have been built during the year. S1 Pail Closets and Middens have been converted to the waste water closet system, in each of these cases the Corporation has borne the cost of the labour, the owners paying only for cost of materials.

Two houses and One School (in addition to those having the closets put on the Waste Water system) have been connected to the sewerage system during the year. One Private Street Improvement has been completed, and several others are at present in hand.

FRANCIS WOOD, Borough Surveyor.

January 28th, 1902.

#### BATHS SUPERINTENDENT'S REPORT.

I have the honour to submit my sixth Annual Report on the work of this Department.

The number of Bathers who have used the various kinds of Baths for the year is 34,626, an increase of 2,271 over last year.

The swimming or recreative portion of the establishment still accounts for the major portion of bathers and revenue.

All the Baths with the exception of the first-class plunge, which was not opened as early as usual on account of repairs to the roof, have been in working order.

The greatest number using the Baths during one month was in July, when there were 7,340, which is a record. There has been one Gala during the year, held by the Bacup Swimming Club.

26,679 persons have used the plunge Baths during the year, and 7,947 various other Baths.

During the severe dearth of water, the plunge Baths were only filled as often as absolutely necessary.

The following table will show the number of Bathers for the last seven years.

1895	 	25,961
1896	 	29,689
1897	 	33,889
1898	 	35,316
1899	 	36,996
1900	 	32,335
1901	 '	34,626

The following Table will show the number of Bathers in each class of Bath as compared with previous years :---

Description of Bath.	Rate	. 1896	1897	1898	1899	1900	1901
Furkish, Special	1/6	85	42	43	32	33	19
Furkish, 2nd Class	1/-	961	974	969	782	780	703
Slipper, 1st Class	/4	1674	2694	2726	2544	2301	2500
Slipper, 2nd Class	/2	1668	2968	3784	4242	3953	4633
Swimming, 2nd Class	/2	6470	9461	11082	9675	8860	9433
Swimming, Boys' 2nd Class	/1	9398	9161	7913	9619	9208	10443
Swimming, 1st Class	/4	1032	2186	2406	2043	2110	1678
Swimming, Boys' 1st Class	-/2	2029	1686	890	832	944	836
Contract Tickets	/2	6150	4530	5340	6330	3540	2910
School Children	$ -/\frac{1}{2} $					42	1379
Vapour	/9	222	190	163	114	84	92
Contraction of the second s		29689	33889	35316	36996	32355	34626

## STATEMENT SHOWING THE NUMBER OF BATHERS IN

Description of	Bath.		January	Feb.	March	April	May	June
Special Turkish, 1s	st Clas	38	• 2	1		2	1	6;
2nd Class Turkish			76	36	49	44	85	120
Vapour			8		4	7	11	4
Slipper, 1st Class		•••	91	61	71	111	264	446
Slipper, 2nd Class			250	120	154	222	477	711
Swimming, 2nd Cla	ass		415	153	270	494	803	1379
Boys, 2nd Class			367	122	190	477	897	1365
Swimming, 1st Cla	ss						100	412
Boys, 1st Class							31	173
Contracts						480	450	570
School Children					500			150
Drawers			22	19	41	83	104	204
	11		in the	647 N				
			7	1	5	3	0	11
		eipts	00	15	9	15	13	0
		Monthly Receipts.	£12	£5	£9	£16	£29	£51
Total per :	month		1209	493	1238	1837	3119	5336

# EACH CLASS OF BATH, AND THE FEES RECEIVED.

July	Aug.	Sept.	Oct.	Nov.	Dec.	Total Number of Bathers.	Receipts from each Class £ s. c	
1		2	3	:	1 19		1 8	6
97	44	40	44	36	32	703	35 3	0
15	3	19	8	6	7	92	39	.0
653	322	231	100	93	57	2500	41 13	4
1030	697	417	235	194	126	4633	38 12	2
1914	1343	1376	513	500	273	9433	78 12	2
2131	1787	1767	602	507	231	10443	43 10	3
467	365	281	53			1678	27 19	4
216	186	201	29			836	6 19	4
570	510	330				2910	24 5	0
246		209	202	72		1379	1 0	10
195	138	128	15	· 23	25	997	4 3	1
	4	1						
2	00	C1	00	10	00			
18	11	13	-1	17	00			
£64 18	£44	£38	£14	£12	£7		Total Receipts for year.	
7340	5257	4873	1789	1408	727	34626	308 1	0

