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COUNTY BOROUGH OF BURY.

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1920,

BY

G. GRANVILLE BUCKLEY,

M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH, CHIEF TUBERCULOSIS OFFICER.
MEDICAL OFFICER TO THE EDUCATION COMMITTEE,
AND
MEDICAL ADVISER TO THE LOCAL INSURANCE COMMITTEE.

BURY:
PRINTED AT THE "TIMES" OFFICE, CROSS STREET.
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HEALTH COMMITTEE, 1920.

CHAIRMAN - COUNCILLOR T. B. SMITH.

DEPUTY-CHAIRMAN - COUNCILLOR BOYDEN.

HIS WORSHIP THE MAYOR (ALDERMAN THOMAS ROTHWELL),
ALDERMAN ASHWORTH,
,, BRADLEY,
,, COLLINGE,
,, FLETCHER,
,, GREENHALGH,
COUNCILLOR ASHWORTH,
,, BATTERSBY,
,, DAWSON,
COUNCILLOR SIR J. HACKING,
,, HARGREAVES,
,, HARRISON,
,, JOHNSON,
,, REDFORD,
,, SHARP,
,, J. SMITH,
,, A. TAYLOR,
,, JANE TAYLOR,
,, WILKINSON.

Meetings—The Wednesday in each month immediately preceding the 14th day before the Council, at 10-0 a.m.

OFFICIALS OF THE HEALTH DEPARTMENT.

Inspector of Nuisances, District Inspector of Moorside, East, and part of Redvales Wards, Inspector under Shop Hours' Acts, Inspector under Explosives Act, &c. :—JOHN HAWORTH, Cert. R.S.I., Certified Sanitary Engineer, Certified Inspector of Meat and other Foods.

District Inspector for Church, Elton, and part of Redvales Wards, Inspector under Canal Boat Acts, &c. :—SAMUEL KAY, Cert. R.S.I.

Smoke Inspector, Inspector of Infectious Diseases, Common Lodging Houses, &c. :—HENRY MITCHELL, Cert. R.S.I.

Abattoirs Superintendent, Inspector of Meat, and of Dairies, Cowsheds, and Milkshops; Inspector of Offensive Trades, &c. :—ALEXANDER ADAMS, Cert. R.S.I., Certified Inspector of Meat and other Food.

Health Visitors, Inspectors of Workshops (where Females are employed), Inspectors under Shop Hours' Acts, Inspectors of Midwives, &c. : — NURSES M. HACKING, C.M.B., S. PENNINGTON, C.M.B., B. GREENHALGH, C.M.B., and E. WEBSTER, Cert. R.S.I.

School Visitors :—LILIAN H. RISHTON, M.I.H., and NORA SMETHURST, C.M.B. (commenced May 17th, 1920).

Chief Clerk :—P. WOOD. *Assistant Clerks* :—L. KAY and C. PROPHET.

Medical Officer of Health :
G. GRANVILLE BUCKLEY, M.D., Ch.B., D.P.H.

Assistant Medical Officer of Health :
HARRY F. HUTCHINSON, M.B., D.P.H. (resigned June 30th, 1920).
CLAUDE S. HARWOOD, M.D., B.Sc., D.P.H. (commenced July 7th, 1920).

Inspector under Food and Drugs Acts :
H. C. CASS (Markets Inspector).

Borough Analyst :—THOMAS J. HUTCHINSON, F.I.C.

Veterinary Inspector and Surgeon :—W. E. S. RICHMOND, M.R.C.V.S.

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Public Health Department,

Clough Street,

BURY,

September, 1921.

To the Chairman and Members of the Health Committee.

Lady and Gentlemen,

I have the honour to present to you my Annual Report on the health and sanitary circumstances of your Borough during the year 1920.

The Birth Rate (19.66) *is* 6.60 *per* 1,000 *of the population higher than the rate for* 1919, *and it is the highest recorded for the Borough since the year* 1913.

The Death Rate (14.55) *shows a decrease of* 2.33 *per* 1,000 *as compared with the rate for* 1919, *and is, with the exception of the rate for the year* 1912, *the lowest ever recorded for the Borough. The Phthisis Death Rate is again the lowest recorded for the Borough, being* 0.83 *per* 1,000.

I am pleased to report that the Infant Mortality Rate has decreased to 91 *per* 1,000 *births, and this rate also is the lowest recorded for the Borough. The average for the previous ten years was* 121 *per* 1,000 *births. The rate* (91) *compares very favourably with the rates for other Lancashire towns.*

I am, Lady and Gentlemen,

Yours obediently,

G. GRANVILLE BUCKLEY,

Medical Officer of Health.

County Borough of Bury.

STATISTICAL SUMMARY. 1920.

Situation—Latitude, 53° 36′ N.; Longitude, 2° 18′ W.

Population (estimated 1920)			56410
,, (census 1911)			59040
Number of Inhabited Houses (Census 1911)			13919
Marriages (Bury Union)			1696
Births	Males	592	Total 1118
	Females	526	
,, (Illegitimate)			64
Annual Rate of Births per 1,000 of the Population (56,864)			19.66
Deaths	Males	420	Total 821
	Females	401	
Annual Rate of Mortality per 1,000 of the population (56410)			14.55
Excess of Registered Births over Deaths			297
Infantile Mortality			91 per 1,000 Births.

Density.—The mean density of the Borough from the census of 1911 was equal to 10.09 persons per acre:—In Church Ward, 26.72; East Ward, 16.15; Moorside Ward, 9.33; Redvales Ward, 9.22; Elton Ward, 6.76.

Area.—The Municipal Borough of Bury comprises parts of what were formerly the Townships of Tottington-lower-End, Shuttleworth, Bircle-cum-Bamford, Heap, Pilsworth, Pilkington, Radcliffe and Elton, as well as the township of Walmersley, and has a total area of 5,925 acres.

Elevation.—The mean elevation of the Borough is about 300 feet above sea level, and varies between 223 feet at Blackford Bridge and 765 feet at Higher Sedger Hey.

LEGAL SUMMARY.

Statutes in force in the Borough (other than Public General Acts) :—

LOCAL ACT.

Bury Corporation Act, 1909.

ACTS CONFIRMING PROVISIONAL ORDERS.

Local Government Board's Provisional Orders Confirmation (No. 17) Act, 1903. (An Act to confirm certain Provisional Orders relating to Bury and the Bury and District Joint Hospital Board.)

Local Government Board's Provisional Orders Confirmation (No. 5) Act, 1911, which confirmed a Provisional Order made by the Local Government Board for the inclusion of Warth Fold within the Borough as from the 9th November, 1911.

Local Government Board's Provisional Orders Confirmation (No. 10) Act, 1914, which confirmed an Order authorising the carrying out of certain street improvements.

Local Government Board's Provisional Orders Confirmation (No. 15) Act, 1912, confirming the Bury (Extension) Financial Adjustments Order, 1912.

Local Government Board's Provisional Orders Confirmation (No. 1) Act, 1913, repealing Section 212 of the Bury Corporation Act, 1909, and the tenth Schedule, and abolishing the special rating districts, or added area differential rating.

Local Government Board's Provisional Orders Confirmation (No. 13) Act, 1914, repealing Section 141 of the Bury Corporation Act, 1909, which prohibited streets being laid out for building purposes exceeding 100 yards in length without an intersecting street every 100 yards.

Tramways Orders Confirmation Act, 1915, authorising the extension of the Bury Tramways to the New Inn, Walmersley, and at Jericho.

ACTS ADOPTED.

Public Health Acts Amendment Act, 1890. (March 5th, 1891; came into operation May 1st, 1891.)

Infectious Diseases (Prevention) Act, 1890. (August 2nd, 1900; came into operation October 1st, 1901.)

Housing of the Working Classes Act, 1890—Part III. (June 3rd, 1909.)

Notification of Births Act, 1907. (March 5th, 1908.)

Public Health Acts Amendment Act, 1907. Orders made, declaring certain Parts and Sections thereof to be in force in the Borough, by the Local Government Board on November 8th, 1909 (came into operation 1st January, 1910), and by the Secretary of State on October 13th, 1909.

ACTS CONSTITUTING CERTAIN JOINT AUTHORITIES—

(i.) as to prevention of pollution of rivers, namely: Local Government Board's Provisional Orders Confirmation (No. 10) Act, 1891. (Confirming a Provisional Order constituting a Joint Committee, under section 14 of the Local Government Act, 1888, to enforce the provisions of the Rivers Pollution Prevention Act, 1876, in relation to parts of the Rivers Irwell and Mersey);

(ii.) as to water supply, namely:—Bury and District Water (Transfer) Act, 1900 (constituting the Bury and District Joint Water Board).

POPULATION.

At the Census of 1911 the population of Bury was 59,040. The Registrar-General estimated the population for the year 1920 as follows :—For calculation of the death rate 56,410, and for the calculation of the birth rate 56,864.

The death rate population excludes all non-civilian males, whether serving at home or abroad.

The birth rate population is intended to include all the elements of the population contributing to the birth rate.

Several tables, &c., concerning the various wards have been omitted from this report owing to the impossibility of estimating with any accuracy their population.

BIRTHS.

During the year 1,122 births have been registered within the Borough, of which eight belonged to other districts. By deducting these eight births the number will be reduced to 1,114, to which must be added four births which have occurred in other districts, thus bringing the corrected number of births to 1,118.

Of this number 592 were boys and 526 were girls, representing a birth rate of 19.66 per 1,000 of the population, as compared with a rate of 13.06 per 1,000 in the preceding year. The corrected number of births shows an increase of 380 as compared with the previous year, and is 101 above the mean number for the ten years 1910-1919.

Sixty-four of the above births were illegitimate, as compared with thirty-nine in the previous year.

MARRIAGES.

The total number of marriages celebrated in the Bury Union during the year 1920 was 1,696, as compared with 1,474 in 1919, 1,009 in 1918, 904 in 1917, 1,050 in 1916, 1,411 in 1915, and

1,215 in 1914. The returns of the marriages solemnised in the Bury District in the year 1920 are summarised as follows :—

Church of England.	Before Authorised Persons.	Before Registrar.	Total.
887	355	454	1696

DEATHS.

During the year 912 deaths have been registered in the Borough. Of the deaths, 212 occurred in the Union Workhouse, 57 in the Dispensary Hospital, five in the Florence Nightingale Hospital, and two in the Robinson Kay Home.

Of the 912 deaths, 136 were of persons not usually resident in the Borough.

By excluding these 136 deaths of non-residents, the number of deaths is reduced to 776, to which must be added the 45 deaths of Bury residents which have occurred in other towns. The corrected number of deaths of Bury residents is thus brought to 821, which is less by 95 than the previous year, and is 91 below the mean number for the ten years 1910-1919.

The death rate is equal to 14.55 per 1,000 of the population, as compared with a rate of 16.88 per 1,000 in the previous year, and compares favourably with the rate (13.8 per 1,000) for the 96 great towns of England and Wales. It is, with the exception of the year 1912, the lowest rate recorded for the Borough.

Of the 819 persons who died, 420 were males and 401 were females.

The decline in the number of deaths is due chiefly to the decreased mortality from such diseases as Influenza and Bronchitis. It is pleasing to record the continued diminution in the mortality from Phthisis, the number of deaths from this disease (47) being 18 below the average for the past ten years.

The following table shows the natural increase or decrease of the population during the past 38 years (1883-1920) :—

Year.	Births.	Deaths.	Natural Increase or Decrease.
1883	1813	1198	615*
1884	1740	1278	462*
1885	1863	1131	732*
1886	1922	1317	605*
1887	1888	1317	571*
1888	1842	1294	548*
1889	1770	1229	541*
1890	1598	1276	322*
1891	1682	1548	134*
1892	1617	1262	355*
1893	1488	1357	131*
1894	1507	1140	367*
1895	1710	1508	202*
1896	1454	1245	209*
1897	1520	1183	337*
1898	1483	1128	355*
1899	1439	1163	276*
1900	1390	1108	282*
1901	1272	975	297*
1902	1214	955	259*
1903	1329	1030	299*
1904	1383	1003	380*
1905	1271	964	307*
1906	1336	1001	335*
1907	1336	939	397*
1908	1377	939	438*
1909	1226	965	261*
1910	1235	868	367*
1911	1190	954	236*
1912	1230	838	392*
1913	1187	919	268*
1914	1162	964	198*
1915	1026	946	80*
1916	900	902	2†
1917	776	829	53†
1918	728	976	248†
1919	738	916	178†
1920	1118	821	297*
Total.....	52760	41386	11374*

* Increase. † Decrease.

Causes of, and Ages at Death during the Year 1920.

Causes of Death.	Nett Deaths at the subjoined Ages of Residents, whether occurring within or without the District.									Total Deaths whether of Residents or Non-residents in Institutions in the District.
	All ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
All Causes { Certified	810	101	24	19	33	29	88	243	273	276
All Causes { Uncertified	11	1	1	..	..	..	..	5	4	
Enteric Fever	..	..	..	..	..	..	..	..	..	..
Smallpox	..	..	..	..	..	..	..	..	..	..
Measles	7	3	2	2	..	..	..	..	..	1
Scarlet Fever	1	..	..	..	1	..	..	..	..	1
Whooping Cough	10	5	3	1	1	..	..	..	..	1
Diphtheria and Croup	3	..	..	..	3	..	..	..	..	3
Influenza	24	..	..	1	..	2	4	10	7	8
Erysipelas	..	..	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuberculosis)	47	..	..	..	2	7	22	13	3	4
Tuberculous Meningitis	6	1	3	1	1	..	.	..	..	..
Other Tuberculous Diseases	8	1	..	1	1	2	1	1	1	4
Cancer, Malignant Disease	71	..	..	..	..	..	5	41	25	19
Rheumatic Fever	..	..	..	..	..	..	..	..	..	..
Meningitis	..	..	..	..	..	..	..	..	..	..
Organic Heart Disease	124	4	..	..	4	3	4	56	53	27
Bronchitis	105	7	2	1	2	..	8	34	51	23
Pneumonia (all forms)	58	11	10	5	6	6	2	10	8	6
Other Diseases of Respiratory Organs	5	..	..	..	..	1	..	1	3	2
Diarrhœa and Enteritis	18	7	..	2	..	..	1	5	3	3
Appendicitis and Typhlitis	2	..	..	1	1	..	..	..	..	4
Cirrhosis of Liver	4	..	..	..	..	..	1	3	..	..
Alcoholism	1	..	..	..	..	..	..	1	..	1
Nephritis and Bright's Disease	16	..	2	..	..	1	3	5	5	4
Puerperal Fever	3	..	..	..	..	1	2	..	..	1
Other accidents & Diseases of Pregnancy and Parturition	4	..	..	..	..	..	4	..	..	1
Congenital Debility and Malformation, including Premature Birth	42	42	..	..	..	..	..	..	..	2
Violent Deaths, excluding Suicides	16	..	..	..	3	..	4	5	4	18
Suicides	12	..	..	..	..	1	3	7	1	3
Other Defined Diseases	155	8	2	1	8	5	24	54	53	64
Diseases Ill-defined or Unknown	79	13	1	3	..	..	..	2	60	76
	821	102	25	19	33	29	88	248	277	276

INFANT MORTALITY, 1920.

Nett Deaths from stated causes at various Ages under One Year of Age.

CAUSE OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 year.
All Causes { Certified	34	2	7	2	45	23	14	12	7	101
All Causes { Uncertified	..	..	1	..	1	..	..	..	..	1
Smallpox	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	3	..	3
Scarlet Fever	..	..	..	..	..	..	..	..	..	..
Whooping Cough	..	..	..		..	5	..	..	..	5
Diphtheria	..	..	..	..	..	..	..	..	..	..
Erysipelas	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis	..	..	..	..	..	1	..	..	..	1
Abdominal Tuberculosis	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases	..	..	..	..	..	..	..	1	..	1
Meningitis (not Tuberculous)	..	..	..	..	..	..	..	..	1	1
Convulsions	2	..	1	..	3	3	3	2	2	13
Laryngitis	..	..	..	..	..	..	..	..	..	..
Bronchitis	..	..	..	..	..	4	2	1	..	7
Pneumonia (all forms)	..	..	..	..	..	1	4	4	2	11
Diarrhœa	..	..	1	..	1	2	3	1	..	7
Enteritis	..	..	..	..	..	..	..	..	..	..
Gastritis	..	..	..	..	..	..	..	..	..	..
Syphilis	1	.	..	..	1	1	..	..	..	2
Rickets	..	..	..	..	..	..	..	..	..	..
Suffocation, overlying	..	..	..	..	..	..	..	..	..	..
Injury at Birth	2	..	..	..	2	..	..	..	..	2
Atelectasis	4	1	..	..	5	..	..	..	..	5
Congenital Malformations	1	..	..	..	1	..	..	..	..	1
Premature Birth	17	1	3	..	21	2	..	..	..	23
Atrophy, Debility & Marasmus	3	..	2	1	6	3	..		..	9
Other Causes	4	..	1	1	6	1	2	..	2	11
	34	2	8	2	46	23	14	12	7	102

Nett Births in the year { Legitimate .. 1054, Illegitimate .. 64

Nett Deaths in the year { Legitimate Infants .. 96, Illegitimate Infants .. 6

Vital Statistics of Whole District during 1920 and Previous Years.

Year	Population estimated to middle of each Year.	Births.			Total Deaths registered in the District.		Transferable Deaths of Non-residents registered in the District.	Transferable Deaths of Residents not registered in the District.	Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 Year of Age.		At all Ages.	
			Number.	Rate	Number	Rate			Number.	Rate per 1000 nett Births.	Number	Rate.
1915	54773	1026	1026	17·33	1086	19·83	166	26	118	115	946	17·27
1916	53463	907	900	15·47	1040	19·45	169	31	120	133	902	16·87
1917	51851	787	776	13·43	939	18·11	162	52	72	93	829	15·99
1918	51851	733	728	12·73	1096	21·13	164	44	80	110	976	19·13
1919	54248	743	738	13·06	1014	18·69	146	48	68	92	916	16·88
1920	56410	1122	1118	19·66	912	16·16	136	45	102	91	821	14·55

Area of District in acres (land and inland water) .... } 5925.

Total population at all ages 59040
Total families or separate occupiers ...13919
Average number of persons per house ...4·24
} At Census of 1911.

Mortality at Different Age Periods.—Of the 821 deaths :—

102	occurred in children under one year of age....	12.42	per cent.
25	occurred between the ages of 1 and 2 years...	3.05	,,
19	,, ,, 2 and 5 years...	2.31	,,
33	,, ,, 5 and 15 years...	4.02	,,
29	,, ,, 15 and 25 years...	3.53	,,
88	,, ,, 25 and 45 years...	10.72	,,
248	,, ,, 45 and 65 years...	30.21	,,
277	occurred in persons over 65 years of age.....	33.74	,,
		100.00	

Infectious Diseases (including Influenza).—The percentage of deaths from infectious diseases (5.85) is 10.30 per cent. lower than in the preceding year. It will be seen on reference to the appended table, the percentage of deaths for the year 1920 from these diseases is the lowest as compared with the percentage for the previous years :—

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Percentage	13.52	6.92	11.97	8.92	10.78	6.43	6.51	20.09	16.15	5.85

Diseases of the Respiratory System (excluding Phthisis) :—168 deaths have been attributed to various diseases of the respiratory organs, which is a decrease of 32 deaths as compared with the preceding year.

Of these deaths, 105 (or 62.50 per cent. of the total 168) were attributed to Bronchitis, being a decrease of 30 deaths, as compared with the number (135) in the preceding year. The following table shows the age periods at which deaths from Bronchitis were recorded :—

Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 upwards
7	2	1	2	—	8	34	51

Pneumonia caused 58 deaths, as compared with 60 deaths in the previous year. Of this number, 31 cases were due to Broncho Pneumonia and 27 to other forms. The following table shows the ward distribution and the age periods at which these deaths were recorded :—

Wards.	Under 1.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Totals.
Moorside	3	3	—	1	2	—	1	—	10
East	2	3	—	3	2	1	—	1	12
Church	2	3	1	1	1	—	3	1	12
Redvales	1	—	1	—	1	—	5	3	11
Elton.....	3	1	3	1	—	1	1	3	13
Totals.....	11	10	5	6	6	2	10	8	58

Phthisis caused 47 deaths, making a total of 215 deaths from respiratory diseases, as compared with 248 deaths in the previous year.

Deaths from Respiratory Diseases in each of the preceding ten years :—

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Bronchitis.....	77	84	75	91	115	97	104	98	89	135
Pneumonia	56	72	64	83	98	95	80	77	100	60
Oth'r Respirat'ry Diseases	2	15	7	3	7	12	9	5	3	5
Phthisis	73	57	77	60	65	76	49	75	66	48
Totals.....	208	228	223	237	285	280	242	255	258	248

LONGEVITY.

Deaths of Persons over 60 Years of Age.—The deaths of persons over 60 years of age were equal to 43.61 of the total deaths, as compared with 46.07 per cent. in the preceding year.

The number of deaths attributed to **old age** was 61, a decrease of 20 as compared with the previous year. The following table gives the number of deaths attributed to old age, and the percentage to the total number of deaths; also a comparison with each of the ten preceding years :—

YEAR.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
No. of Deaths	98	92	75	68	85	85	83	77	70	81	61
Per cent. of Total Deaths	11·29	9·64	8·95	7·40	8·82	8·99	9·20	9·29	7·17	8·84	7·43

INQUESTS DURING THE YEAR 1920.

During the year the causes of death of 49 Bury residents were investigated by the District Coroner (Mr. S. F. Butcher). In 38 instances it was found advisable to hold an inquest, and of this number 28 related to the bodies of males and 10 to the bodies of females. In 11 cases a public enquiry was dispensed with.

The following is a classification of the sex and age periods :—

	Males.	Females.
Under one year of age	2	2
Over one and under two years of age...	—	—
Over two and under five years of age ...	1	—
Over five and under 15 years of age... ...	4	1
Over 15 and under 25 years of age	1	1
Over 25 and under 45 years of age	5	1
Over 45 and under 65 years of age	12	1
Over 65 years of age	3	4
Total	28	10

The verdicts of the Coroner's Juries, and the wards to which the deceased belonged, are shown in the table :—

	Moorside.	East.	Church.	Redvales.	Elton.
Natural Causes	2	4	5	4	3
Accident	3	1	4	—	1
Suicide	3	2	2	—	3
Misadventure...	1	—	—	—	—

Among those certified as due to Natural Causes, eight deaths were returned as being due to Syncope or diseases of the Heart.

Of those due to Accident, five were due to accidents while at work, two to burns, one to fall, and one resulted from an accident on the highway.

Of the Suicides, four were by cut throat, two by gas suffocation, two by drowning, one by shooting, and one by poison.

UNCERTIFIED DEATHS.

The number of uncertified deaths (i.e., deaths which had not been certified by a medical man, or cases in which the Coroner considered an inquest unnecessary) was 11, five being of males and six of females.

The following shows the age periods, and the wards to which the deceased belonged :—

	Ages 0-1	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Moorside ..	1	1	—	—	—	—	1	—
East	—	—	—	—	—	—	—	1
Church	—	—	—	—	—	—	2	1
Redvales ..	—	—	—	—	—	—	—	—
Elton	—	—	—	—	—	—	2	2

INFANT MORTALITY.

Number of births during the year	1,118
Number of deaths of children under one year of age...	102
Infant Mortality Rate, per 1,000 births	91

The Infant Mortality Rate for the year 1920 shows a decrease of one compared with the corresponding rate for 1919, and is 30 below the mean rate for the ten preceding years. It is the lowest rate recorded in the Borough.

During the summer months of the year special visits were paid by the Health Visitor to the homes of the babies who were being bottle-fed, in order to advise mothers where necessary on the feeding and care of their infants during this period of the year. In addition close attention was also given to scavenging, and the frequent removal of household refuse, as the latter branch of work bears an important part in the prevention of summer Diarrhœa.

On reference to the table on page 14 it will be seen that 34 deaths (or 33.33 per cent.) occurred during the first week after birth, and 46 (or 45.10 per cent.) occurred during the first month.

Deaths from Zymotic diseases show an increase as compared with the previous year, viz., fifteen compared with three deaths in 1919.

Deaths from Respiratory diseases show an increase of eight as compared with the previous year, seven being due to Bronchitis, eight to Broncho-Pneumonia, and three to Pneumonia (other forms).

The following table shows the number of deaths of infants per 1,000 births in Bury during the past eleven years :—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	Average 10 years	1920
124	168	112	141	125	115	133	93	110	92	121	91

Infant Mortality for the whole of England and Wales (1920)	80
For the 96 Great Towns	85
For the 148 Smaller Towns	80
For Bury	91

From the list below it will be observed that as regards Infant Mortality Bury compares very favourably with other Lancashire towns.

Infant Mortalities.—Chief Lancashire Towns:—

Accrington	97	Bury	91
Ashton-under-Lyne..	120	Darwen	93
Blackburn	110	Oldham	105
Bolton	98	Rochdale	94
Bootle	97	St. Helens	113
Burnley	129	Wigan	124

CAUSES OF DEATH.—**Zymotic Diseases** have caused 15 deaths, seven being due to Diarrhœa, five to Whooping Cough, and three to Measles. The number of infant deaths from Diarrhœa during the previous ten years in Bury is apportioned as follows:—3 in 1919, 5 in 1918, 8 in 1917, 17 in 1916, 15 in 1915, 23 in 1914, 37 in 1913, 11 in 1912, 45 in 1911, and 19 in 1910.

Respiratory Diseases.—These were responsible for 18 deaths (as compared with 10 deaths in 1919), and of these seven were due to Bronchitis, eight to Broncho Pneumonia, and three to Pneumonia (other forms).

Tuberculous Diseases.—The number of deaths was two, as compared with two deaths in 1919, two in 1918, one in 1917, two in 1916, one in 1915, six in 1914, three in 1913, five in 1912, six in 1911, and seven in 1910.

Remaining Causes.—The chief remaining causes of death were:—

Premature Birth...	17
Convulsions	13
Atrophy, Debility, and Marasmus	3
Dentition	3

An analysis of the deaths at the various age periods is given on page 14.

Inquests.—During the year the Coroner (Mr. S. F. Butcher) enquired into the cause of death in four instances (two males and two females), the ages of the children being 3 days, 7 weeks, 3 months, and 7 months. The cause of death in each case was returned as "Natural Causes."

Uncertified Deaths.—In one instance the Coroner deemed the holding of an inquest unnecessary, the cause of death being returned as due to "Natural Causes."

Illegitimacy.—5.7 per cent. of the total births were illegitimate, and of the total deaths of children under one year of age 5.88 per cent. were of illegitimate children, as compared with 19.10 per cent. in 1919. The infant mortality among legitimate children was 91 per 1,000 births, whereas among illegitimate children it was 94 per 1,000 births.

Occupation of Mother.—Of the mothers of the 102 fatal cases :—

64 were occupied only with house duties (62.75 per cent.).
38 were engaged as either mill workers or otherwise employed away from home (37.25 per cent.).

The following table shows the number of the mothers of fatal cases who are employed outside the home :—

Year	Deaths	Infant Mortality	Mothers occupied (a) Outside Home	(b) At Home	Doubtful
1901	213	166	60 (28%)	117	36
1902	156	128	41 (26%)	106	9
1903	231	174	76 (33%)	135	20
1904	226	163	71 (31%)	128	27
1905	184	146	71 (38%)	113	—
1906	236	177	139 (59%)	97	—
1907	181	135	25 (62%)	56	—
1908	178	129	63 (35%)	115	—
1909	159	129	93 (58%)	66	—
1910	154	124	100 (58%)	54	—
1911	200	168	123 (61%)	77	—
1912	138	112	84 (60%)	54	—
1913	168	141	88 (52%)	80	—
1914	146	125	65 (44%)	81	—
1915	118	115	39 (33%)	79	—
1916	120	133	37 (31%)	83	—
1917	72	93	39 (54%)	33	—
1918	80	110	32 (40%)	48	—
1919	68	92	27 (39%)	41	—
1920	102	91	38 (37.25%)	64	—

Insurance.—Fourteen, or 13.72 per cent., of the infants who died were insured, as compared with 13.32 per cent. in the year 1919.

Influence of Feeding on Infant Mortality.—During the year the following information has been obtained as to the method of feeding of 1,099 of the 1,109 infants notified. Of these:

891	were breast-fed,	amongst which were	18	deaths, i.e.,	2.22%
140	,, bottle-fed	,, ,,	21	,, ,,	15.00%
48	,, breast and bottle-fed	,,	2	,, ,,	4.16%
20	,, spoon-fed	,,	19	,, ,,	95.00%

10 died within 24 hours of birth, or no particulars could be obtained.

Of the 102 deaths which have been recorded of children under one year of age, the following is an analysis of the nature of feeding:—

36, or 35.29 per cent., were bottle-fed.
29, or 28.43 per cent., were fed naturally.
8, or 7.84 per cent., were partly breast and partly bottle fed.
19, or 18.63 per cent., were spoon-fed.
10, or 9.80 per cent., died almost immediately after birth.

District Mortality.

		Infant Deaths.	Births.	Deaths per 1000 Births
Bury North	Moorside Ward	24	290	83
	East Ward	29	242	120
Bury South	Church Ward	19	160	119
	Redvales Ward	10	181	55
Elton Ward		20	245	82
Whole Borough		102	1118	91

NOTIFICATION OF BIRTHS ACT, 1907.

The above Act was adopted at a meeting of the Town Council held on February 8th, 1908, and the consent of the Local Government Board having been obtained, came into operation on April 8th, 1908. The Act was, however, extended to all districts on September 1st, 1915.

Under the Notification of Births Act of 1917, 1,168 births were notified, 954 being notified by midwives, 162 by medical practitioners, and 52 by parents or other persons. Of the total number of births notified, 59 were returned as being "still-born," of which 41 were notified by midwives and 18 by medical practitioners.

The effect of the above measure cannot but tend to have a beneficial effect from a health point of view. Especially is this the case with regard to the feeding and care of infants, as the Lady Inspector is thus able at an earlier stage, where necessary, to give such information with regard to feeding, &c., as may be desired.

MIDWIVES' ACT.

The number of midwives on the register at the end of the year was 17, a decrease of three on the total at the end of the year 1919. Speaking generally, they have complied with the rules and regulations according to the Midwives' Act.

The following is a list of Midwives on the Register at the end of the year :—

*Ashworth, Mrs. Emma Louisa, 47, Taylor Street.
*Palmer, Mrs. Lydia Ada, Rowlands, Summerseat.
*Ingham, Mrs. Jane Parkinson, 144, Heywood Street.
*Sharples, Mrs. Annie, 229, Booth Street, Tottington.
*Busby, Mrs. Isabella E., 15, Topping Street, Elton.
*Millwood, Mrs. Harriet Sophia, 3, Newbold Street.
*Chaffer, Mrs. Emma, 7, Nelson Street.
*Jackson, Mrs. Clara, 1, Fairy Street, Elton.
*Hope, Miss Elizabeth L., Union Hospital.
*Whamond, Miss Elsie, ,,

LIST OF MIDWIVES ON REGISTER—*Continued.*

Carrington, Mrs. Mary Jane, 4, Richard Burch Street.
Pickup, Mrs. Mary Ann, 6, St. Annes Street.
Royle, Mrs. Bridget, 3, Livsey Street.
Morrison, Mrs. Louisa, 52, Manchester Old Road.
Cotterill, Mrs. Sophia, 108, Wash Lane.
Berry, Mrs. Elizabeth A., 7, Statter Street, Hollins.
Snowdon, Mrs. Elizabeth, 17, Thorn Street, Summerseat.

* Trained and certified by examination.

Some of the midwives still find difficulty in the use of the clinical thermometer, and some being unable to write have to rely upon others to enter up their registers; these latter, fortunately few in number, are untrained and uneducated. The standard of midwifery work now carried out in Bury shows a higher state of efficiency, due, doubtless, to the supervision carried out under the provisions of the Midwives' Act of 1902 and 1918.

During the year 354 notices were received from midwives requesting the help of medical practitioners.

STILL BIRTHS.—Eighteen still births were notified by medical men, and 41 by midwives, during 1920, an increase of 24 on the number notified during 1919.

MIDWIVES' ACT, 1918.

The above Act came into force on January 1st, 1919, and Section 14 requires the Local Authority to pay the practitioner's fee when called in by a midwife in an emergency, according to a scale fixed by the Local Government Board. The Local Authority is empowered to recover the fee from the patient, or her husband, or other person liable to maintain her, unless it is shown to the satisfaction of the Authority that the patient or her husband or such other person is by reason of poverty unable to pay such fee.

MATERNITY AND CHILD WELFARE.

MOTHERS' WELCOME.

In November, 1916, a Committee of voluntary workers, including representatives of the Bury Co-operative Women's Guild,

opened the "Mothers' Welcome" at 12, John Street. The building contains consulting room, play room for children, tea room for mothers, weighing room, lavatories, &c. The Welcome is open every Monday and Thursday afternoon.

In April, 1919, the Centre was taken over by the Corporation, but the voluntary Committee also continued to assist with the work.

At the end of the year there were 903 children on the register and 5,224 attendances had been made. There were also 61 expectant mothers on the register, with a total attendance of 183.

In April this year arrangements were made for a Centre to be opened at the Wood Street School, Elton. The Centre is open every Wednesday afternoon, and it has met with great success. At the end of the year there were 191 children on the register, and 922 attendances had been made. There were also nine expectant mothers on the register, with a total attendance of 33.

Full records are kept of each child, and when considered necessary the child is examined by the Medical Officer in attendance. The Health Visitors have attended on 271 occasions. No treatment is carried out at the Centres, but where the child requires medical attention the mother is directed to consult her own medical man.

MILK (Mothers and Children) ORDER, 1919.

During the year 138 applications were received for free milk under the above Order, of which 110 were granted and 28 refused.

COMPLICATED CASES OF LABOUR.

In June, 1920, arrangements were made with the Board of Management of the Bury Infirmary for the reservation of two beds for the treatment of complicated cases of Labour. Up to the end of the year three patients were treated at the institution.

Table showing the number of cases of Infectious Disease notified from 1901 to 1920.

DISEASE.	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Smallpox	..	37	59	25	33	1	..	..	..	..	30	..	..	..	..	1	..	..	..	..
Scarlet Fever	179	156	156	261	197	90	40	98	389	564	220	139	296	250	156	112	85	50	27	76
Diphtheria and Membran'us Croup	78	182	107	73	55	35	48	52	59	44	44	13	66	59	51	48	165	114	115	74
Enteric Fever	47	33	37	22	33	33	18	15	9	18	25	6	7	8	8	5	7	5	7	1
Continued Fever	9	5	2	1	3	3	1	2					1							
Puerperal Fever	7	11	2	11	4	11	14	9	5	4	6	6	6	4	3	2	4	2	3	6
*Measles																135	1082	668	235	
Erysipelas	15	20	20	10	46	42	35	26	38	40	32	41	28	36	48	29	18	16	28	25
†Chickenpox	..	..	..	..	79	..	..	..	..	..	..	..	..	..	..	223	103	138	97	190
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	1
Encephaltis Lethargica	..	..	..	..	..	..	..	..	..		..	..	..	..	..	..	..	..	..	1
Ophthalmia Neonatorum	..	..	..	..	..	..	..	..	..	..	..	1	4	15	15	22	21	6	11	12
‡Pneumonia	..	..	..		..	..	..	..	..	..	..		..	..		..	..	..	149	53
‡Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..		..	..		23	10
‡Dysentery	..	..	..	..	..	..	..			..	..	..		..	..	..	..	..	2	..
TOTALS	335	444	383	403	450	215	156	202	500	670	357	208	408	373	281	577	1485	999	697	449

* Made notifiable on Jan. 1st, 1916. † Made notifiable on Mar. 29th, 1916. ‡ Made notifiable Mar. 1st, 1919.

Cases of Infectious Disease notified during the Year 1920.

Notifiable Disease.	Cases notified in whole District.								Total Cases notified in each locality. Registration Sub-District.			No. of Cases Removed to Hospital from each locality			Total Cases Remov'd to Hospit'l
	At all Ages	At Ages—Years.													
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards.	North.	South.	Elton.	North.	South.	Elton.	
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..		..	..	..	..		..	..	..	..	..
Diphtheria (including Membranous Croup)	74	1	10	48	8	6	1	..	29	15	30	24	13	28	65
Erysipelas	25	..	..	1	3	8	10	3	14	5	6	..	..	..	..
Scarlet Fever	76	..	14	52	6	4	..		37	25	14	29	19	11	59
Typhus Fever		..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	1	..	..	1	..	..	..	..	1	..	..	1	..	..	1
Relapsing Fever	..	..	..	..	..	..	..	..	..	..		..	..	..	..
Continued Fever	..	..	..	..	..	..	..	..	..	..		..	..	..	..
Puerperal Fever	6	..	..	..	1	5	..	..	2	3	1	..	..	..	..
Encephalitis Letharg.	1		..	1	..	..	..	..	1	..	..		..	..	..
Poliomyelitis	1	1	..	..	..	..	..		1	..	..	..	..	..	..
Ophthalmia Neonatorum	12	12	..	..	..		..	..	7	4	1	..	..	..	..
Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	190	4	62	119	2	3	..	..	127	54	9	..	..	..	..
Pneumonia	53	..	6	12	6	13	9	7	18	20	15	..	..	..	..
Malaria	10	..	..	..	3	7	..	..	5	3	2	..	..	..	..
Dysentery	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	449	18	92	234	29	46	20	10	242	129	78	54	32	39	125

Number of Cases of Infectious Disease notified in each Month of the Year.

	Scarlet Fever.	Diphtheria & Membranous Croup.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Poliomyelitis.	Chicken-pox.	Ophthalmia Neonatorum.	Encephalitis L'th'rgica	Pneumonia	Malaria.
January	5	17	...	...	4	...	2	...	...	6	1
February	6	11	1	2	1	...	4	1	...	6	...
March	1	6	...	...	4	...	8	1	...	7	2
April	3	7	...	...	...	...	2	1	...	6	...
May	1	4	...	1	2	...	10	...	...	7	...
June	14	2	...	...	2	...	21	1	...	2	4
July	10	4	...	...	1	...	21	1	...	3	...
August	10	2	...	1	2	...	29	...	...	5	1
September	7	...	...	...	1	...	13	...	...	0	1
October	10	5	...	1	1	...	21	3	...	1	1
November	6	7	...	1	2	1	40	2	...	7	...
December	3	9	...	...	5	...	24	2	1	3	...
TOTALS	76	74	1	6	25	1	190	12	1	53	10

Number of Cases of Infectious Disease Notified in each Quarter of the Year 1920

Quarter.	Scarlet Fever.	Diphtheria & Membranous Croup	Enteric Fever.	Puerperal Fever.	Erysipelas.	Oph. thal. Neon 'tor'm	Poliomyelitis.	Chickenpox.	Pneumonia	Malaria.	Encephalitis Lethargica
1st	12	34	1	2	9	2	...	9	19	3	...
2nd	18	13	...	1	4	2	...	33	15	4	...
3rd	27	6	...	2	4	1	...	63	8	2	...
4th	19	21	...	1	8	7	1	85	11	1	1
Totals	76	74	1	6	25	12	1	190	53	10	1

Ward Distribution of Infectious Diseases, 1920

	Scarlet Fever.	Diphtheria & Membranous Croup.	Enteric Fever.	Puerperal Fever.	Erysipelas.	Ophthal. Neon-'tor'm.	Poliomyelitis.	Chickenpox.	Pneumonia	Malaria.	Encephalitis Lethargica
Moorside	24	21	1	1	4	6	...	36	9	2	1
East.....	13	8	...	1	10	1	1	91	9	3	...
Church	10	8	...	3	4	4	...	19	10	3	...
Redvales	15	7	...	...	1	...	...	35	10	...	...
Elton	14	30	...	1	6	1	...	9	15	2	...
Totals.....	76	74	1	6	25	12	1	190	53	10	1

Cases Removed to the Florence Nightingale Hospital from the various Wards.

	Scarlet Fever.	Diphtheria & Membranous Croup.	Enteric Fever.	Continued Fever.	Puerperal Fever.	Poliomyelitis.	Erysipelas.	Measles.
Moorside ...	19	16	1	...	...	...	...	...
East	10	8	...	...	...	...	...	...
Church	10	8	...	...	...	...	...	...
Redvales	9	5	...	...	...	...	...	...
Elton	11	28	...	...	...	...	...	...
Totals.....	59	65	1	...	...	...	...	...

SCARLET FEVER.

Number of cases notified	76
Number of deaths	1

The number of cases notified shows an increase of 49 as compared with the number (27) notified in the previous year. It will be seen on referring to the undermentioned table that only 12 cases were notified during the first quarter of the year, but in the third quarter 27 cases were notified. The notifications are less by 114 than the average number (190) notified during the ten preceding years (1910-1919).

Quarterly Incidence.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Notifications	12	18	27	19
Deaths	1	—	—	—

Ward Distribution.

	Moorside	East	Church	Redvales	Elton
Notifications...	24	13	10	15	14
Deaths	—	1	—	—	—

Age Distribution.

The youngest case notified was eighteen months old, and the oldest 36 years.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	over 65	Total
Notifications ...	—	14	52	6	4	—	—	76
Deaths	—	—	1	—	—	—	—	1

Admission to Hospital.—Of the 76 cases notified, 59, or 77.63 per cent., were removed to the Florence Nightingale Hospital.

School Closure.—It was not found necessary to close any of the schools in the Borough on account of this disease, as in no instance was a school infection sufficiently marked to call for any other measure than exclusion of scholars.

Throughout the course of the year the disease was generally of a very mild type.

DIPHTHERIA AND MEMBRANOUS CROUP.

Number of cases notified	74
Number of deaths	3

Seventy-four cases of Diphtheria and Membranous Croup have been notified during the year, as compared with 115 in 1919, 114 during the year 1918, 165 in 1917, 48 in 1916, 51 in 1915, 59 in 1914, 66 in 1913, 13 in 1912, 44 in 1911, 44 in 1910, 59 in 1909, and 52 in 1908.

Three deaths have been recorded, representing a mortality rate of 0.05 per 1,000, as compared with three deaths and a rate of 0.05 per 1,000 in the preceding year.

Of the 74 cases, 65 were removed to the Florence Nightingale Hospital. The admissions to hospital constitute 87.85 per cent. of the total cases notified, as compared with 93.04 per cent. in 1919.

Monthly Incidence.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
17	11	6	7	4	2	4	2	—	5	7	9	74

Quarterly Incidence.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter.	Total.
Cases	34	13	6	21	74
Deaths	1	—	—	2	3

Ward Distribution.

	Moorside	East	Church	Redvales	Elton	Total.
Cases	21	8	8	7	30	74
Deaths	2	—	1	—	—	3
Removed to hospital	16	8	8	5	28	65

Notifications and Deaths at Different Ages.

	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	Total
Cases... ...	1	10	48	8	6	1	74
Deaths ...	—	—	3	—	—	—	3

ANTITOXIN.—Towards the end of the year 1910 sanction was obtained from the Council to supply the medical practitioners of the district with Antitoxin free, for patients suffering from Diphtheria within the Borough. It is gratifying to note that not only the curative but the prophylactic use of the serum is practised by medical men in the Borough, who have under their care the families whose members have been infected or exposed to infection.

BACTERIOLOGICAL EXAMINATIONS.—52 swabs from doubtful cases were sent for bacteriological examination to the Public Health Laboratory, Manchester, with the following results :—

11 gave positive results for Diphtheria bacilli.
41 gave negative results.

ENTERIC FEVER.

Cases notified	1
Deaths	0

Only one notification of Enteric Fever was received at the Health Office during the year, as compared with seven notifications in the preceding year. The following shows the number of cases which have been notified during the last ten years :—

1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
25	6	7	8	8	5	7	5	7	1

The patient, a male, aged 16 years, was removed to the Florence Nightingale Hospital, and was discharged convalescent after seven weeks' treatment.

BACTERIOLOGICAL TESTS.—Specimens of blood of two cases of suspected Typhoid Fever were sent to the Public Health Laboratory, Manchester, with the following results :—

None gave positive results to Widal's test.
Two gave negative results.

PREVENTIVE MEASURES.—These, for some years now, have consisted generally in (i.) Isolation (a) at home, or (b) in hospital.

(ii.) Disinfection or destruction of stools. In the case of patients treated at home, special pails are supplied by the Health Department for the reception of the excreta of patients. The pails are removed frequently and their contents burnt at the destructor. (iii.) Thorough disinfection of house, bedding, &c. (iv.) Disinfection of sanitary conveniences attached to the infected houses. (v.) Examination of drains, and defects, if found, are remedied. (vi.) Conversion of midden ashpits, where these exist in connection with infected houses, to the water-carriage system. The last remedy is, in my opinion, a most important one in the prevention of the future spread of the disease. (vii.) The possibility of individuals acting as "carriers" of the infection is kept in mind. As these individuals may be an active source of infection to others, without themselves actually suffering from the disease, their supervision and education receive the necessary attention.

PUERPERAL FEVER.

Six cases of Puerperal Sepsis have been notified during the year, three of the cases proving fatal, as compared with three cases and two deaths in 1919.

ERYSIPELAS.

Number of cases notified	25
Number of deaths	0

During the year 25 cases of Erysipelas were notified, being a decrease of three cases as compared with the number (28) in the previous year. No deaths were attributed to this disease, as compared with no deaths in the previous year.

WARD DISTRIBUTION.

	Moorside	East	Church	Redvales	Elton	Total
Notifications	4	10	4	1	6	25

QUARTERLY INCIDENCE.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Notifications	9	4	4	8	25

AGE INCIDENCE.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 up.	Total
Notifications	—	—	1	3	8	10	3	25

SEX.—As last year the incidence was greatest amongst females, 16 females and 9 males being attacked.

The regions of the body affected were as follows :—

Face ... ... 20 cases.
Legs and arms ... ... 5 ,,

The majority of the cases occurred secondarily to some neglected injury, as a cut, scratch, or bruise.

On notification of the disease to the Health Department a thorough inspection of the premises is made, this frequently bringing to notice sanitary defects which otherwise would have escaped observation.

CEREBRO-SPINAL FEVER AND ACUTE POLIOMYELITIS.

One case of Acute Poliomyelitis has been notified during the year under review.

Acute Encephalitis Lethargica and Acute Polio-Encephalitis.

In December one case of Acute Encephalitis Lethargica was notified. The patient was a girl aged 14 years. The case proved fatal.

OPHTHALMIA NEONATORUM.

Twelve cases of this disease have been notified during the year, as compared with eleven cases in the previous year. The ages of the children were as follows :—Two three days, one four

days, one six days, two seven days, one ten days, one eleven days, two thirteen days, and two fourteen days.

The wards in which the cases occurred were: Moorside 6, East 1, Church 4, and Elton 1.

CHICKEN-POX.

Owing to several outbreaks of Smallpox in the country, it was found advisable to make Chicken-pox a compulsorily notifiable disease in the Borough on March 29th, 1916.

In consequence the majority of cases occurring in the town have been brought to the notice of the Health Department, and have thus been able to be kept under observation.

	1917	1918	1919	1920
No. of cases notified by doctors	103	138	97	190
,, ,, ,, school authorities	148	229	139	169
,, ,, verified	111	155	136	149

No deaths have occurred from the disease during the past five years.

SMALLPOX.

No case of Smallpox occurred during the year; the last case notified in the Borough was on March 15th, 1916.

SMALLPOX AND VACCINATION.

Return showing the number of births, deaths (under one year), vaccinations, conscientious objections, and the number vaccinated for the years ending 1916, 1917, 1918, 1919, and 1920.

BOROUGH OF BURY.

	Totals 1916	Totals 1917	Totals 1918	Totals 1919	Totals 1920
Births	954	825	748	786	1165
Vaccinated	330	249	238	255	298
Insusceptible of Vaccination	2	2	3	0	1
Conscientious Objection Certificates.	449	399	398	388	652
Dead, Unvaccinated	91	53	45	64	92
Postponed by Medical Certificate	15	6	12	13	23
Removal to districts known	7	6	0	4	7
Removal to districts unknown	19	8	6	3	10
Unaccounted for	41	102	46	59	82

Table showing percentage of Vaccination, and also comparison with the years 1916, 1917, 1918, 1919 :—

	Year ending December 31st, 1916	1917	1918.	1919	1920
Number of Births	954	825	748	786	1,165
Vaccinated	34.59	30.18	31.82	32.44	25.58
Con. objection Cert's.	47.06	48.36	53.21	49.37	55.97
Unaccounted for	4.29	12.36	6.15	7.51	7.04

PUBLIC HEALTH (Measles and German Measles) REGULATIONS, 1915.

By order of the Ministry of Health the above Regulations were rescinded on December 31st, 1919.

Number of cases notified by School Authorities	153
Number of deaths	7

Seven deaths occurred from Measles during the year, representing a rate of 0.12 per 1,000 of the population, as compared with one death and a rate of 0.02 per 1,000 during the year 1919.

PRECAUTIONARY MEASURES.—The following precautionary measures are adopted in dealing with the outbreaks of Measles :—

(i.) Notification of the disease by School Teachers on printed forms supplied by the Health Department. (153 cases of Measles were thus notified during the year, and of these 114 were verified by the Health Department.)

(ii.) Each case is visited, where possible, by the Health Visitor, who leaves handbills, and gives advice as to the precautions to be taken in each instance.

(iii.) Closure of Schools, chiefly the Infants' Departments, affected by the disease. A request is sometimes made also to the Sunday School Authorities to have this portion of the School closed during the period of closure of the Day School.

(iv.) Disinfection of houses affected, by means of formalin spray, &c., where consent can be obtained.

(v.) Thorough disinfection of affected Schools, with special attention to books, desks, &c.

THE PUBLIC HEALTH (Pneumonia, Malaria, Dysentery, &c.) REGULATIONS, 1919.

These regulations came into force on March 1st, 1919, and up to the end of the year the undermentioned number of notifications has been received :—

Age Periods.

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 up.	All Ages
Pneumonia	—	6	12	6	13	9	7	53
Malaria	—	—	—	3	7	—	—	10
Dysentery	—	—	—	—	—	—	—	—

Ward Distribution.

	Moorside	East	Church	Redvales	Elton	Whole Borough
Pneumonia	9	9	10	10	15	53
Malaria	2	3	3	—	2	10
Dysentery	—	—	—	—	—	—

Monthly Incidence.

	Pneumonia	Malaria	Dysentery.
January	6	1	0
February	6	0	0
March	7	2	0
April	6	0	0
May	7	0	0
June	2	4	0
July	3	0	0
August	5	1	0
September	0	1	0
October	1	1	0
November	7	0	0
December	3	0	0
Totals	53	10	0

All the persons notified as suffering from Malaria have served abroad in the Army.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES.

Cases of infectious disease, including Smallpox, requiring removal are sent to the Hospitals under the control of the Bury and District Joint Hospital Board.

SCHOOLS AND INFECTIOUS DISEASES, 1919.

During the year the Headmasters and Headmistresses of the various schools within the Borough notified the Health Department of 946 cases of suspected Infectious or Contagious Diseases among the scholars attending their schools.

On the cases being visited, 836 children were found to be suffering from some ailment or other, but Infectious or Contagious Diseases were not the cause of illness in every instance, as several of the children were found only to be suffering from colds, Bronchitis, &c. The following table shows the number of cases notified and the number certified of the various ailments. The instances where no cases are stated as having been notified and some certified is accounted for by the fact that the cases certified were notified under other headings :—

Disease.	No. Notified.	No. Certified.
Diphtheria	2	2
Measles	153	114
Chicken-Pox	169	149
Mumps	305	249
Ringworm	142	136
Scarlet Fever	4	1
Whooping Cough	159	124
Impetigo	3	6
Colds	0	39
Swollen Glands	0	2
Bronchitis	1	10
Sore Eyes	4	2
Sore Head	4	2
Total	946	836

The number of notifications received from the various schools, and the number certified, during the previous ten years, are shown in the undermentioned table :—

Year	No. Notified.	No. Certified.
1910	589	451
1911	1074	989
1912	695	616
1913	778	692
1914	608	531
1915	1448	1367
1916	403	387
1917	1334	1268
1918	1148	1023
1919	784	743

The following are the schools from which notifications were received in the order of number of notifications :—

East Ward Council.
Elton Council.
St. Paul's (Huntley).
St. Chad's.
Holy Trinity.
George Street.
Guardian Angels'.
Clerke Street.
St. Thomas's.
St. Peter's.
St. Mark's.
Warth.
Brunswick.
St. Paul's (Bell).
Christian Church.
St. Joseph's.
Walmersley.
Chesham.
St. John's.
All Saints'.

SCHOOL CLOSURE.

During the year the following schools have been closed on account of the prevalence of Infectious Disease among the scholars :—

School and Department.	Period Closed.	Reason for Closure.
Birtle, both Departments..	Mar. 16th to April 1st..	Measles and Whooping Cough.
St. Thomas's, Infants'....	Nov. 22nd to Dec. 10th	Measles
Warth, Infants'	May 21st to May 26th.....	Chickenpox

DISINFECTION.

In each case after the closure of a school the walls, desks, floors, &c., have been sprayed with a solution of formalin, special attention being given to the books, &c., used by the scholars.

Mention might also be made of the co-operation of the School Managers with the Health Department in their endeavours to prevent and control infectious diseases. Much valuable assistance has also been rendered by clergymen and others to the Department by not holding classes in the schoolrooms on Sundays during the period of closure of the day school for an infectious disease.

WHOOPING COUGH.

Number of cases notified through School Authorities ... **159**
Number of deaths **10**

During the year Whooping Cough has caused ten deaths, as compared with no deaths in the previous year.

159 suspected cases were notified by the school authorities, of which, on being visited, 124 were found to be suffering from this disease.

Whooping Cough is most fatal in children under one year of age, the number of deaths diminishing as the age increases. Although this disease is generally most prevalent in children, it is sometimes observed in adults, the symptoms being much the same as those in the child, but there is a less tendency to dangerous complications.

DEATHS FROM WHOOPING COUGH DURING THE LAST TEN YEARS.

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	Average	1920
0	12	22	1	15	4	9	3	8	0	7.4	10

DIARRHŒA.

During the year 18 deaths from Diarrhœa have been registered, which is equal to a rate of 0.32 per 1,000 of the population, as compared with 10 deaths and a rate of 0.18 in the previous year, 18 deaths and a rate of 0.35 per 1,000 in 1918, 24 deaths and a rate of 0.46 per 1,000 in 1917, 26 deaths and a rate of 0.49 in 1916, 37 deaths and a rate of 0.67 in 1915, and 36 deaths and a rate of 0.61 in 1914.

It will be seen on referring to the age periods that seven of the deaths occurred in children under one year of age. As a general rule this disease is most prevalent in children between the ages of three months and one year. The infants who suffer most are the weakly dyspeptic ones who are badly fed and improperly cared for, in many instances the mother having to go out to work and the child put out to nurse. Diarrhœa is much more prevalent and fatal in the large towns than in the country districts, and much more common amongst the poorer classes of people living in houses of the back-to-back type and crowded courts, &c., where there is little fresh air and the standard of cleanliness is low. Under such conditions milk and other foods have to be kept in the small and crowded living rooms, and are readily contaminated.

The infants who suffer least are the breast-fed ones, as will be seen from the under-mentioned table, which shows the number of diarrhœa deaths of children under one year of age for the past ten years, and also shows the percentage of infants who have been fed by breast and the percentage fed by bottle.

Year	No. of Deaths.	Bottle Fed.	Breast Fed.
1910	19	17, or 89.47 per cent.	2, or 10.53 per cent.
1911	45	45, or 100.00 per cent.	0, or 0.00 per cent.
1912	11	8, or 72.72 per cent.	3, or 27.28 per cent.
1913	37	33, or 89.19 per cent.	4, or 10.81 per cent.
1914	23	17, or 73.91 per cent.	6, or 26.09 per cent.
1915	23	17, or 73.91 per cent.	6, or 26.09 per cent.
1916	17	12, or 70.59 per cent.	5, or 29.41 per cent.
1917	8	6, or 75.00 per cent.	2, or 25.00 per cent.
1918	5	5, or 100.00 per cent.	0, or 0.00 per cent.
1919	3	2, or 66.67 per cent.	1, or 33.33 per cent.
1920	7	5, or 71.43 per cent.	2, or 28.57 per cent.

Monthly Incidence.

January	1
February	2
March	—
April	1
May	1
June	—
July	3
August	3
September	2
October	2
November	2
December	1

Ward Distribution.

	No. of Deaths.
Moorside	1
East	6
Church	5
Redvales	3
Elton	3
	18

Age Periods.

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	44 to 65	65 upwards	Total
7	—	2	—	—	1	5	3	18

INFLUENZA.

Twenty-four deaths were attributed to Influenza during the year 1920. This represents a mortality rate of 0.43 per 1,000 as compared with 133 deaths and a rate of 2.45 per 1,000 in the previous year.

Deaths from Influenza during 1920 as compared with the ten preceding years :—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	Average	1920
7	8	4	10	18	26	16	10	146	133	37.8	24

Age Distribution.

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total
—	—	1	—	2	4	10	7	24

Ward Distribution.

Moorside	East	Church	Redvales	Elton	Whole Borough
4	3	5	5	7	24

Quarterly Incidence.

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year
4	13	3	4	24

VENEREAL DISEASES.

Formerly patients in the Borough suffering from Venereal Diseases were treated either by their own doctor or were obliged to attend a clinic in another town, such as Manchester or Bolton. On February 3rd, 1920, however, a clinic was opened at the Tuberculosis Dispensary, The Wylde, Bury. The hours of attendance are :—

Tuesdays : 6-30 p.m. to 8-30 p.m. for females.
Fridays : 6-30 p.m. to 8-30 p.m. for males.

The work is carried out by a medical man with special experience in the work, and free treatment is available for all, whether resident in the Borough or not.

Dr. Holker, the Venereal Diseases Officer, reports as follows :

The Department has proved to be particularly valuable in the treatment of early cases of venereal diseases. The advantage of treating early cases is two-fold in character, since the public is not only protected early against infection, but is also put to less expense. It is therefore economical to advertise the treatment centre and to impress on the public the advantage of early treatment. Though the public as a whole are realising more the advantage of early treatment, it is an unfortunate fact that a not inconsiderable proportion of the patients who attend the centre come

irregularly. This apparently is due to carelessness and a feeling of false security in many cases, but in others is due to the exigences of their employment. The value of regularity of treatment should therefore also be advertised. Bearing in mind the very great importance of early diagnosis and treatment, arrangements were made in the latter part of 1920 for the taking and immediate examinations of smears in the centre itself, instead of waiting for a report from a pathological department. It would be well if this fact were persistently brought to the notice of medical practitioners in the district.

The following tables give full particulars of the work carried out at the clinic during the year 1920 :—

VENEREAL DISEASES.

RETURN relating to all persons who were treated at the Treatment Centre at Bury during the year ended the 31st December, 1920.

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than Venereal		Total.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of persons who, on the 1st January, 1920, were under treatment or observation for	..	1	..	..	..	..	...	..	..	1
2. Number of persons dealt with during the year at or in connection with the out-patient Clinic *for the first time* and found to be suffering from :—										
Syphilis only	100	61	..	..	..	..	..	..	100	61
Soft chancre only	..	..	2	..	..	..	..	..	2	..
Gonorrhœa only	..	..	..	..	52	7	..	..	52	7
Syphilis and soft chancre	..	..	..	..	..	..	..	..	3	..
Syphilis and Gonorrhœa	6	1	..	..	..	..	..	..	..	1
Gonorrhœa and soft chancre ..	..	..	..	..	..	..	..	..	..	..
Syphilis, soft chancre and gonorrhœa.....	..	..	..	..	..	..	..	..	..	..
Balanitis	..	..	..	..	..	..	1	..	1	..
Conditions other than venereal	..	..	..	..	..	..	2	2	2	2
Total.—Item 1	106	62	2	..	52	7	3	2	163	71
Total.—Items 1 and 2	106	63	2	..	52	7	3	2	163	72
3. Number of persons who ceased to attend the out-patient Clinic										
(*a*) before completing a course of treatment for	15	15	..	..	7	2	1	..	23	17
(*b*) after completion of a course of treatment, but before final tests as to cure of	..	..	2	..	..	..	..	..	2	..
4. Number of persons transferred to other Treatment Centres after treatment for	3	..	..	..	1	1	..	..	4	1
5. Number of persons discharged from the out-patient Clinic after completion of treatment and observation for	1	..	..	..	11	1	2	2	14	3
6. Number of persons who, on the 1st January, 1921, were under treatment or observation for.....	87	47	0	..	33	3	..	..	120	50
Total.—Items 3, 4, 5, and 6 ..	106	62	2	..	52	7	3	2	163	71
7. Total attendances of all persons at the out-patient clinic who were suffering from.....	868	616	13	..	355	40	6	3	1242	659
8. Aggregate number of "In-Patient days" of treatment given to persons who were suffering from	..	..	..	..	..	..	..	..	..	..

RETURN relating to VENEREAL DISEASES—Continued.

9. Examinations of Pathological material :—	For detection of			For Wassermann Reaction.
	Spirochetes.	Gonococci.	Other Organisms.	
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre.	..	21	..	..
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory.....	18	63	..	281

STATEMENT showing the services rendered at the Treatment Centre during the year, classified according to the areas in which the patients reside.

Name of County or County Borough (or Country in the case of persons residing elsewhere than in England and Wales) to be inserted in these headings.	Bury.	Lanc'shire	Bolton.	Manchestr	Total.
A. Number of persons from each area dealt with during the year at or in connection with the out-patient Clinic *for the first time* and found to be suffering from :—					
Syphilis	77	89	1	1	168
Soft Chancre.....	1	1	..	..	2
Gonorrhœa	29	28	1	1	59
Balanitis	..	1	..	..	1
Conditions other than venereal.....	2	2	..	..	4
Total.....	109	121	2	2	234
B. Total number of attendances at the out-patient Clinic of all patients residing in each area	995	891	10	5	1901
C. Aggregate number of "In-patient days" of all residing in each area.....	..	..	..	..	..
D. Number of doses of Salvarsan substitutes given in the :— 1. Out-patient Clinic; 2. In-patient Dept. to patients residing in each area	342	427	6	3	778
E. Give the names of Salvarsan substitutes used in the treatment of syphilis and the usual initial and final doses	Novarsenobillon 0·45 and 0·6				
F. State the number of doses of Salvarsan substitutes usually given in a full course of treatment	7				
G. State in what proportion of cases, approximately, Salvarsan substitutes are used in the treatment of syphilis	All				
H. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page	The tests are those mentioned in Memo. v except that for Gonorrhœa, no cultu or complement fixation test is used.				

TUBERCULOUS DISEASES.

Phthisis caused 47 deaths, of which 23 were males and 24 females. The rate of mortality was 0.83 per 1,000, as compared with a rate of 0.88 per 1,000 in the previous year. Three of the deaths occurred in the Union Workhouse.

The age and sex distribution of the cases was as follows :—

	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total
Males	—	—	1	4	12	6	—	23
Females	—	—	1	2	11	7	3	24

Mean Age at Death from Phthisis.

Males	36.5
Females	42.9

Ward Distribution of Deaths from Phthisis.

Moorside	East	Church	Redvales	Elton	Total
14	14	6	4	9	47

Occupations of Persons Dying from Phthisis during the Year 1920.

Cotton Operatives	5	Porter	1
Woollen Operatives	2	Cable Layer	1
Electrician	1	Motor Driver	1
Paper Mill Worker	1	Blacksmith	1
Iron Operatives	2	Brewer's Cooper	1
Rag Sorter	1	Outdoor Labourers and Carters	9
Wood Turner	1	Other or no employment	18
Joiners	2		

Other Tuberculous Diseases.—Fourteen deaths resulted from tuberculous diseases other than Phthisis, as compared with 20 deaths in the previous year.

The age distribution was as follows :—

Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 upwards	Total
2	3	2	2	2	1	1	1	14

Tuberculosis, therefore, was responsible for 61 deaths altogether, which is equivalent to a rate of 1.08 per 1,000.

In other words, one out of every thirteen deaths in Bury has been due to some form of Tuberculosis.

Bacteriological Examination of Sputum.—During the year the sputa of 52 suspected cases of Phthisis were examined at the Public Health Laboratories, Manchester. Tubercle Bacilli were found in ten cases, while the result was negative in the remaining 42.

Deaths from Phthisis in Bury during the Past 10 Years:

1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
57	77	60	65	76	49	75	66	48	47

PUBLIC HEALTH (Tuberculosis) REGULATIONS, 1912.

Particulars of notifications received under these Regulations will be found on page 50.

On each case being notified the patient was visited by the Health Visitor, who gave instructions and suitable advice re methods of dealing with sputum and prevention of spread of the disease. Disinfectant solutions, paper handkerchiefs, and spittoons were supplied gratis to the patients. Subsequent visits were also paid by the Lady Inspector to ensure that the instructions were being carried out, and to give advice about the nursing of the patients, many of whom were in the last stage of the disease.

INSTITUTIONAL TREATMENT.

Institutional treatment is given to cases of Tuberculosis at the Tuberculosis Dispensary and at the two Institutions of the Bury and District Joint Hospital Board, viz.: The Aitken Sanatorium at Holcombe, near Ramsbottom, and the Ainsworth Sanatorium, near Bolton. The Aitken Sanatorium is used for the treatment of early cases and the Ainsworth Sanatorium for cases which are more advanced.

The Aitken Sanatorium was opened in August, 1910, the Ainsworth Sanatorium on October 20th, 1913, and the Bury Tuberculosis Dispensary on October 15th, 1914.

THE TUBERCULOSIS DISPENSARY.

The Tuberculosis Dispensary is situated in the Wylde, Bury, and was formerly the Prince's Club. It is situated in the centre of the town quite close to the main tram routes and the railway stations. The building was kindly presented to the town by the Earl of Derby.

The two wards contain eight beds each, half of which number are, by arrangement with the Lancashire County Council, for the sole use of patients from outside the Borough. Two of the remaining beds are guaranteed to the Insurance Committee for the use of insured persons; but the Insurance Committee are allowed the use of any further beds that may be unoccupied.

The Out-Patient Department is used by the Lancashire County Council on certain half-days per week, when one of their Tuberculosis Officers is in attendance.

The following table gives the number of patients treated and the number of patient days in the various institutions :—

	INSURED.		NON-INSURED.		TOTAL.	
	No. of Patients.	No. of Days.	No. of Patients.	No. of Days.	No. of Patients.	No. of Days.
Dispensary	—	—	10	983	10	983
Aitken Sanatorium.....	28	3195	3	129	31	3324
Ainsworth Sanatorium..	24	2651	3	153	27	2804

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from the 4th January, 1920, to 1st January, 1921.

Age Periods.	Number of Notifications on Form A.													Number of Notifications on Form B.					No. of Notifications on Form C.	
	Primary Notifications.												Total notifications (i.e., including cases previously notified by other Doctors).	Primary Notifications.				Total notifications (i.e., including cases previously notified by other Doctors).	Poor Law Institutions.	Sanatoria
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards.	Total.		Under 5	5 to 10	10 to 15	Total.			
Pulmonary Males...	—	1	—	1	1	3	7	12	8	4	—	37	40	—	—	—	—	—	3	28
,, Females	—	—	2	1	3	2	5	9	4	2	3	31	32	—	—	—	—	—	2	18
Non-pulmonary Males...	—	2	2	2	2	—	1	—	1	—	1	11	15	—	1	—	1	1	—	—
,, Females	—	6	2	4	2	—	—	—	1	1	1	17	19	—	1	1	2	2	—	—

CANCER.

During the year 71 deaths (equal to a mortality of 1.26 per 1,000) were registered as due to various forms of malignant disease. Of these deaths, 35 were males and 36 females.

Sex and Age	Under 35	35 to 45	45 to 55	55 to 65	65 to 75	Over 75	Total
Males	—	1	7	12	13	2	35
Females	—	5	4	16	10	1	36

The following table gives the ward distribution of these deaths :—

Moorside	East	Church	Redvales	Elton.
21	12	10	14	14

Character of the disease as described on the returns :—

	Males.	Females.
"Cancer"	8	9
Carcinoma	24	27
Epithelioma	2	—
Sarcoma	1	—

Organs Affected.

	Males.	Females.
Stomach	14	12
Intestine	3	4
Rectum	3	2
Liver	2	2
Breast	—	2
Uterus	—	13
Throat	2	—
Bladder	1	1
Jaw	2	—
Larynx	1	—
Œsophagus	3	—
Tongue	1	—
Pancreas	1	—
Cervical Glands	1	—
Kidney	1	—
	35	36

DISINFECTION.

The following is a summary of the disinfection carried out during the year in the reported cases of Infectious Diseases :—

240 rooms in 184 houses were disinfected with the fumes of either sulphur or formaldehyde, and the walls of 465 rooms in 184 houses sprayed with a solution of either formalin or carbolic acid.

The desks, books, walls, &c., of eight public schools have been sprayed with a solution of formalin, the rooms afterwards being disinfected with the fumes of formaldehyde.

80 rooms in 57 houses have been disinfected with the fumes of formalin or sulphur, and the walls of 140 rooms in 37 houses sprayed with a solution of formalin, after the occurrence of deaths from or the removal of cases of Phthisis.

Six parcels of infected clothing and 50 sets of infected bedding have been disinfected by steam.

WATER SUPPLY.

PUBLIC SUPPLY.—The public service of the Borough is derived from four of the Reservoirs belonging to the Bury and District Joint Water Board. The Board represents the following Authorities :—Bury, Radcliffe, Ramsbottom, Tottington, Haslingden, Rawtenstall, Whitefield, Little Lever, and Bury Rural. The area supplied is 80 square miles.

The four Reservoirs supplying Bury are :—

Gin Hall (situated in Bury), supplying 10,483 houses.

Calf Hey and Ogden (situated in Haslingden Borough), supplying 2,723 houses chiefly in the districts of Limefield, Bell Lane, Jericho, and Blackford Bridge.

Hapton (situated partly in Rawtenstall Borough and partly in Burnley district), supplying 1,071 houses, chiefly in Chesham and Walshaw districts.

The total number of houses supplied at December 31st, 1919, was 14,267.

HOUSES CONNECTED AND DISCONNECTED DURING THE YEAR.—

	Houses.	Baths.	W.C's.
Connected	15	47	113
Disconnected	—	1	—

NEW MAINS.—27 yards of 6-in. main, 69 yards of 4-in. main, and 1,077 yards of 3-in. main have been laid as follows :—27 yards of 6-in. main, Walmersley Housing Scheme; 51 yards of 4-in. main, Hampton Street; 18 yards of 4-in. main, James Street; and 1,077 yards of 3-in. main, Walmersley Housing Scheme.

RENEWALS.—1,187 yards of 4-in. main, 104 yards of 3-in. main, and 233 yards of 2-in. main have been renewed as follows :—335 yards of 4-in. main, Ainsworth Road, Elton; 140 yards of 4-in. main, Woodhill Street; 248 yards of 4-in. main, Belbeck Street,

Elton; 136 yards of 4-in. main, Cook Street; 328 yards of 4-in. main, Manchester Old Road and Haslam Brow; 104 yards of 3-in. main, Peers Street, Elton; 109 yards of 2-in. main, Manchester Old Road and Haslam Brow; and 124 yards of 2-in. main, Back Manchester Road.

Flushing operations have been carried out periodically and several dead ends have been renewed.

Private Water Supply.—At the end of the year 1920 there were four houses, 20 cottages, two schools, and one lodge supplied with water from private sources. The following shows the situation and the number of houses supplied:—

1 cottage, Holebottom.
School, Woodgate Hill.
1 house, Green Bank.
1 house, Chesham.
1 house, Chesham Green.
1 cottage, Cinder Hill.
1 house, South View.
2 cottages, Chesham Green.
3 cottages, Cinder Hill.
1 cottage, Gipsy Brook.
1 cottage, Chesham.
2 cottages, Birchen Bower.
2 cottages, Lowes.
2 cottages, Spring Cottage, Fairfield.
1 cottage, Bury Ground.
3 cottages, near Bury Reservoir.
Lodge, Woodhill Road.
School, Woodhill.
1 cottage, near Park Hill House.

FACTORIES AND WORKSHOPS.

FACTORIES.—During the year 14 notices have been received from His Majesty's Inspector of Factories, all of which have been complied with.

WORKSHOPS.—The duty of supervising the workshops in which males are employed is carried out by Inspectors Haworth and Kay, and the Female Inspectors (Nurses Hacking, Pennington, Greenhalgh, and Webster) have charge of the workshops in which females only are employed.

GENERAL SANITATION.—The workshops, as regards cleanliness, light, air space, &c., have been found to comply with requirements. From a sanitary point of view the conditions under which work is carried on in these rooms is very satisfactory, and it is pleasing to record that any suggestions for further improvement have been carried out by the owners. The number of workshops in the Borough is 434.

HOME WORK.—Lists containing the names and addresses of home workers have been received from two firms and entered in the register. The Female Inspectors have paid 19 visits to the homes in which the work is carried on, and in the majority of cases the work is performed under satisfactory conditions.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND HOMEWORK.

1.—INSPECTION

Including inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries)	40	14	—
Workshops (including Workshop Laundries)	100	40	—
Workplaces (other than Outwork'rs' Premises)	79	20	—
Total	219	74	—

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			
	Found.	Remedied.	Referred to H.M. Inspector	Number of Prosecutions
Nuisances under the Public Health Acts:—				
Want of Cleanliness	6	6	..	..
Want of Ventilation	...	..	..	..
Overcrowding	..	..	..	..
Want of drainage of floors	..	..	..	..
Other Nuisances	28	28	..	..
Sanitary accommodation: Insufficient	15	15	..	..
Sanitary accommodation: Unsuitable or defective	36	36	..	..
Sanitary accommodation: Not separate for sexes	..	..	..	..
Offences under the Factory and Workshop Act:—				
Illegal occupation of underground bakehouse (S. 101)	..	..	..	..
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	..	..	..	..
Other offences (excluding offences relating to Outwork, which are included in part 3 of this report)	..	..	..	..
Total	85	85	..	..

OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspectors of Factories:—	
Failure to affix Abstract of the Factory & Workshop Act (S.133)	5
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop (Act S. 5). — Notified by H.M. Inspector	14
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop (Act S. 5). — Reports (of action taken) sent to H.M. Inspectors.	14
Other	—
Underground Bakehouses (S. 101):—	
Certificates granted during the year	—
In use at the end of the year	2

Homework:—	Number of Lists.	Number of Outworkers.
List of Outworkers (S. 107):—		
Lists received:—Twice in the year	—	—
Once in the year	2	19
Addresses of outworkers forwarded to other Authorities.	—	—
Addresses of outworkers received from other Authorities	—	—
Inspection of Outworkers' Premises	19	

Homework in unwholesome or infected premises:—	Wearing Apparel.	Other.
Notices prohibiting homework in unwholesome premises (S. 108)	—	—
Cases of infectious disease notified in homeworkers' premises	—	—
Orders prohibiting homework in infected premises (S. 110)	—	—

Workshops on the Register (S. 131) at the end of the year 1920

Important classes of workshops, such as workshop bakehouses, may be enumerated here.

Bakehouses	110
Blacksmiths...	13
Brush Manufacturers	4
Boot and Shoe Makers and Repairers	40
Cloggers	24
Cabinet Makers and Joiners	15
Dress and Mantle Makers	19
Wheelwrights	7
Workplaces	25
Marine Store Dealers & Metal Brokers	9
Painters and Decorators	18
Plumbers	16
Saddlers	8
Tailors	34
Milliners	40
Other Trades	52
Total number of workshops on register	434

FACTORIES AND WORKSHOPS.

FACTORIES, WORKSHOPS, AND WORKPLACES.—During the year 14 notices were received from His Majesty's Inspector of Factories, and these have been complied with.

The following is a list of Notices served during the period under review :—

No. of Notice.	Defects Found.	Remedies Adopted
1.—F.I.N.	Insufficient closet accommodation for women.	Three additional w.c's provided.
2.—F.I.N.	Insufficient closet accommodation for women.	Two additional w.c's provided.
3.—F.I.N.	W.C. for women without a suitable door.	Door fixed.
4.—F.I.N.	The sanitary accommodation for women unsuitable in that the conveniences for men and women adjoin and have the same approach.	The doors to the conveniences have been re-arranged and a separate approach made to each closet.
5.—F.I.N.	No intervening ventilated space between thewomen's sanitary convenience and the workroom.	A ventilated space provided.
6.—F.I.N.	Women's sanitary accommodation not sufficiently ventilated and no intervening ventilated space between them and the workroom.	Roof ventilators, skylights, and additional air inlets fixed. The closet screen carried up to the ceiling and the outer screen repaired.
	Sanitary accommodation for women not kept in a cleanly state and no fastener to closet door.	A new pedestal basin fixed and a bolt fixed to door.
7.—F.I.N.	Women's convenience not lighted or properly venti. lated.	Suitable lighting and ventilation provided.
	Men's conveniences without seats.	New seats provided.
8.—F.I.N.	No closet accommodation.	Pail closet provided.
9.—F.I.N.	Insufficient closet accommodation and two sets of conveniences without sufficient ventilation between them and the workroom.	Sufficient additional closet accommodation provided. Intervening ventilated space provided.

No. of Notice.	Defects Found.	Remedies Adopted.
10.—F.I.N.	Premises require limewashing, pan of sanitary convenience very dirty and door off its hinges.	Limewashing done, new pedestal fixed and door repaired.
11.—F.I.N.	No intervening ventilated space to women's convenience, and the outer window boarded up, water supply pipe leaking.	Intervening ventilated space provided, and the window and water pipe repaired.
12.—F.I.N.	Premises need limewashing.	Limewashing done.
13.—F.I.N.	Premises need limewashing	Limewashing done.
14.—F.I.N.	Closets on the pail type, not clean, and proper seats not provided.	Closet cleansed and repaired.
706, 723, 725, 925. 928, 944, 1004, 1018, 1040 92, 107	Insufficient closet accommodation.	Nineteen additional w.c's and one pail closet provided.
710, 723, 808, 841, 1196	Closet structurally defective	Repairs done.
723, 965, 1144, 1178	Foul surface and approaches to closet.	Cleansing done.
723	W.C. cisterns out of order.	Repaired.
1144	W.C. without water supply.	Repairs done.
929, 930, 995	Defective W.C. pedestals.	Pedestals renewed
1219, 995, 929, 770, 808, 841	W.C. insufficiently lighted and ventilated.	Light and ventilation given.
847, 1067	Defective soil and ventilating pipes.	Repaired.
1084	Flushing tippler out of order	Repaired.
995, 1117	Defective pails in closets.	Three w.c's fixed, one pail renewed.
749, 857, 1084, 1216, 1220	W.C's choked.	Closets cleared.
8444 1145, 1162, 1176, 24, 36	Drains choked.	Taken up, cleared and relaid.
25, 94, 115	Drains defective.	Taken up and relaid.

No. of Notice.	Defects Found.	Remedies Adopted.
71	Drains insufficient.	Drains relaid.
844	Rain-water pipes choked.	Pipes cleared.
731, 852, 1200, 85, 89	No abstract of Factory Act affixed to workshops.	Copies obtained and posted up.
754, 785, 1059, 1083, 1132, 1135, 42	Accumulation of manure and refuse.	Manure and refuse removed.
792, 1218	Structurally defective premises.	Repaired.
930, 931, 932	Workshops require lime-washing.	Limewashing done.
1083	Workshop infested with flies	Manure removed and the workshop fumigated with sulphur fumes.
1131	Offensive effluvia (dead vermin).	Dead rats located and cleared away.

COMMON LODGING-HOUSES.

The number of Common Lodging-houses in the Borough is fourteen, all of which are subject to annual registration in accordance with Section 40 of the Bury Corporation Act, 1901 (now consolidated in the Bury Corporation Act, 1909).

The following is a list of the keepers of the Common Lodging-Houses in 1920 :—

Wright, John, 38, King Street.
Whitehouse, Samuel, 56, Union Square.
Farrar, Ethel, 25, King Street.
Johnstone, Robert, 24, Clerke Street.
McKenzie, J. W., 26 and 28, Clerke Street.
Arthur Taylor, 5, 7, 9, and 11, Clerke Street.
Nuttall, Arthur, 41 and 43, Union Square.
Law, Alfred, 45, Clerke Street.
Hurine, William Henry, 9, Parkhill Street.

326 visits have been paid to the 14 lodging-houses within the borough, which were found to be kept in a fairly clean condition, the limewashing being done in accordance with the Public Health Acts on the first week in April and October. The following nuisances and breaches of bye-laws were noted and dealt with during the year, letters and preliminary notices having the desired effect of getting the abatement of the same :—

1	in connection	with	defective roof.
3	,,	,,	defective water-closets.
2	,,	,,	choked yard drains.
1	,,	,,	accumulation of refuse.
1	,,	,,	defective pail closet.
1	,,	,,	no door to ashpit.
1	,,	,,	no ashbins.
1	,,	,,	defective R.W.P.

The houses are kept under observation by the plain-clothed police who have been appointed as additional Inspectors by the Health Committee, which gives them the right of entry to the houses at any time.

HOUSES LET-IN-LODGINGS.

("Furnished Rooms.")

The number of houses now on the register is 31. 149 rooms of these houses are let off as furnished apartments, giving accommodation for 343 adults and 61 children.

474 visits have been made in addition to those made by the police officers, and the rooms have been kept fairly clean. The following breaches of the Bye-laws and nuisances were dealt with :—

1	in connection	with	unregistered room being used.
1	,,	,,	no ashbins.
1	,,	,,	defective eaves gutters.
17	,,	,,	choked yard drains, w.c.'s 16, yard 1.
1	,,	,,	accumulation of refuse.
1	,,	,,	waste water latrine closets.
1	,,	,,	premises to cleanse.
5	,,	,,	w.c.'s out of order.
1	,,	,,	animals kept as to be a nuisance.
1	,,	,,	defective gable wall.

Speaking generally, this method of housing the poorer classes is far from satisfactory, but until some other provision is made in the shape of the erection of a cheaper type of house suitable for this class of people, either by the Corporation or by private enterprise, we shall have to endure what, in my opinion, constitutes a blot on the Sanitary Administration of the town.

PETROLEUM ACTS.

Under these Acts one licence has been granted for the storage of benzine and benzoline, thirty-six for petrol, and fourteen for calcium carbide. In all cases the petrol is kept in metal vessels and drums in properly constructed stores, the calcium carbide being kept in metal vessels with airtight lids in dry places, generally in the shops and warehouses. In two cases the carbide is used for the generation of acetylene gas for welding purposes.

EXPLOSIVES ACTS.

Forty persons were registered for the sale of explosives during the year as required by these Acts, being for the sale of fireworks or mixed explosives, &c. The sale of fireworks only lasts for about two or three weeks, i.e., the last week in October and the first and second weeks in November. During this period the shops were visited, and the fireworks were found to be stored in accordance with the regulations made, dummy fireworks being exposed in the windows. Gunpowder is sold by the ironmongers and locksmiths, and is kept in safes in small quantities.

CANAL BOAT ACTS, 1877 and 1884.

The work of the inspection of the canal boats is carried out by Inspector Kay. No boats registered under the above Acts visited the Wharf at Bury Bridge during the year. Twenty visits were paid to the Wharf.

SMOKE OBSERVATIONS.

171 smoke observations of the mill chimneys situated within the Borough have been taken, each being of 60 minutes' duration. The aggregate amount of black smoke evolved was 478 minutes, which is equal to an average of 2.78 minutes for each observation. The time limit (five minutes in sixty) permitted by your Council has been exceeded in ten instances by ten firms, this being equal to 5.84 per cent. of the total observations taken, the aggregate amount of black smoke emitted by these firms being 157 minutes, which is equal to an average of 15 minutes and 42 seconds for each observation. The average amount of black smoke emitted by the chimneys under the limit was equal to 1.99 minutes.

After the observation has been made the usual course has been taken, viz., to send a notification of the amount of black smoke emitted to the firm, and in cases where the limit has been exceeded the works have been visited in order to see if there were any defects in the boilers, &c., which may have caused the nuisance, this course being much appreciated by the owners, as it enables them to trace or check the cause of the nuisance.

The following table gives the result of the ten observations exceeding the limit :—

Initials of Firms.	Black. Mins.	Moderate Mins.	None. Mins.	
*P. Sp. & M. Co.	17½	29½	13	
†H. & C.	22½	18½	19	Pay costs.
*E. C. D. Co.	9½	31	19½	
†B. F. M. Co.	17	24	19	Pay costs.
†H. & C.	13	29½	17½	Fined 10s.
*B. & J.	7	12½	40½	
*C. B. Co.	9	15	36	
*S. R.	9½	15	35½	
*P. Sp. Co.	35½	24½	—	
*T. & N.	16½	24½	19	

* Legal notice served. † Prosecutions.

PREVENTION OF POLLUTION OF RIVERS.

Every effort is made to keep the rivers and streams flowing through the Borough free from pollution. Practically the whole of the sewage is intercepted and conveyed to the Sewage Works for treatment. The process adopted is chemical precipitation, followed by filtration, a portion on four acres of contact beds, and the rest on percolating beds 7,417 square yards in area. The dry weather flow is 1,500,000 gallons per day, and efficient provision is made for treating flows up to six times the dry weather flow or 9,000,000 gallons per day in times of heavy rains.

In areas which are not connected up to the main sewers small sewage schemes are laid down to deal with the sewage.

Alterations commenced to be carried out in April, 1919, to convert to the percolating system, which will take about five years to complete. Experiments are also being carried out by the new process of sewage purification known as the activated sludge process, and which, if successful, would probably make it unnecessary to complete the above alterations.

The control of the rivers and streams within the Borough is under the jurisdiction of the Mersey and Irwell Joint Committee, and their Inspectors supervise the purification plants in trades which are likely to produce effluents of a polluting character. A large number of trade wastes are dealt with by the owners before passing to the river; the rest are admitted to the public sewers.

No complaints have been made during the year of the pollution of rivers or streams.

NUISANCES.

Number of	Legal Notices served...	5
,,	Preliminary Notices served	31
,,	Letters in lieu of Notices	445
,,	Verbal Notices	285
,,	Letters sent other than Notices ...	249

TABLE OF NUISANCES.

Type of Nuisance dealt with.	1916.					1917.					1918.					1919.					1920.				
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
Damp, due to being built against an embankment	..	..	..	..	..	2	2	2	..	..		..	..	..	..	1	1	1	..	..	..	..	..	..	..
Damp walls, built without dampproof course or defective	4	4	4	..	..	..	..	..	..	..	3	3	3	..	..	3	3	3	..	..	1	1	1	..	..
Damp walls, without cavities	3	3	3	..	..	5	5	5	..	..	6	6	6	..	..	7	7	7	..	..	5	10	10		..
Damp, due to defective roofs	4	4	3	..	1	14	14	15	..	..	7	7	7	..	..	14	15	15	..	..	14	17	16	1	..
Damp, due to defective eaves gutters and spouts	10	10	10	..	..	10	15	15	..	..	18	20	21	..	..	10	10	9	..	1	17	18	22	..	..
Premises to cleanse	23	23	11	11	1	25	26	25	2	..	26	27	24	3	..	35	37	34	3	..	31	31	28	3	..
,, to repair	33	46	45	..	1	45	52	51	..	1	39	59	61	..	1	50	57	55	2	..	48	59	58	1	..
,, overcrowded	1	1	1	..	..	..	.	..	..	..	1	1	1	..	..	2	2	2	..	..	2	2	2		..
Defective gas pipes or fittings in houses	..	..	..	..	..	2	2	2	..	..	..	..	..	..	..	2	2	2	..	..	2	2	2	..	..
,, water pipes , ,,	3	3	3	..	..	18	18	18	..	..	9	9	9	.	..	7	7	7	..	..	8	8	14	..	..
,, chimney flues in houses	3	3	2	1	..	3	3	3	..	..	4	4	4	..	..	7	7	7	..	..	6	7	5	1	..
Animals kept as to be a nuisance	7	7	7	..	..	4	4	4	..	..	4	4	4	..	..	6	6	6	..	..	10	10	9	1	..
Accumulation of refuse	36	36	28	6	4	23	33	35	5	1	27	28	30	1	1	26	27	18	8	2	31	31	22	4	9
Defective yard surface	10	10	10	..	..	4	4	4	..	..	13	13	13	..	..	5	6	6	..	..	6	6	6	..	..
Foul ,, ,,	5	8	8	..	1	4	4	11	1	..	7	7	15	.	..	2	2	2	..	..	8	9	9	..	..
Dangerous places, cellar areas, fences, &c.	12	12	10	..	2	9	9	7	2	..	19	19	17	2	..	10	11	11	..	..	20	22	22	..	..
Choked street grids	112		..	..	..	9	..	..	..	..	62	..	..	..	..	51	..	..	..	..	55	..	..	..	..
,, cellar drains	5	5	2	..	3	3	3	3	..	..	13	19	14	5	..	4	6	6	..	..	3	3	3	..	..
,, passage drains	15	16	48	1	..	6	6	14	..	..	18	18	78	..	..	8	9	48	..	..	7	7	23	..	..
,, yard drains	53	54	68	2	4	71	74	75	3	1	88	93	146	5	8	50	57	64	3	1	87	92	86	9	2
,, water closet drains	36	57	77	..	1	37	63	86	1	..	57	138	172	7	5	32	48	41	2	1	54	83	107	4	..
,, waste water closet drains	28	34	43	..	..	26	29	28	2	..	56	49	64		..	36	38	47	..	..	49	56	56	1	..
,, rainwater spout drains	37	58	48	3	..	28	32	32	..	..	44	36	4	2	.	20	23	26	2	..	46	58	49	3	3
Defective drains	26	40	53	..	1	21	25	26	..	2	17	21	27	1	3	21	21	20	3	..	24	25	29	3	..
Insufficient drains	3	3	2	1	1	8	8	4	2	2	2	2	1	1	..	8	9	4	3	2	5	5	5	..	..
Drains inside premises	1	1	1	..	..	..	..	..	..	..	2	2	2	..	..	..	.	..	..	..	1	1	1	..	..
Insanitary traps connected to drains	4	7	7	..	..	5	6	4	2	..	3	3	3	..	..	1	1	1	..	..	..	.	.	..	..
Defective waste pipes	15	15	12	1	2	11	12	12	..	..	20	22	21	1	..	23	27	25	2	..	11	11	11	..	..
,, fittings, sinks and basins	4	4	4	..	..	..	..	..	..	..	1	1	1	..		3	3	3	.	..	2	3	2	..	..
,, rainwater spouts	26	29	29	..	..	37	51	46	..	..	39	43	40	2	2	47	55	49	2	2	64	80	84	2	..
,, eaves gutters	15	19	20	..	..	39	42	46	..	1	34	34	36	3	1	37	47	56	..	1	29	42	48	..	..
Premises without spouts or gutters	6	7	7	..	..	5	5	10	..	..	..	..	..	..	..	8	9	12	.	..	5	5	6	..	..
Premises with an insufficient closet accommodation	36	42	24	19	1	10	11	2	8	..	9	9	2	7	..	21	27	25	10	..	31	39	41	14	3
Closets structurally defective	33	48	67		1	34	45	56	..	..	33	41	95	..		31	47	74	2	..	29	37	72	4	..
Closets dirty and foul approaches	6	7	7	2	1	14	15	19	3	..	4	9	16	3	1	10	16	24	2		5	11	9	3	..
Water closet cisterns out of order	24	27	57	..	..	20	28	46	1	..	21	22	37	2	..	11	15	19	1	1	18	21	40	..	..
,, ,, water pipe burst	20	26	44	.	..	24	36	66	2	..	49	59	157	..	..	19	25	53	1	.	14	16	31	..	..
,, ,, without a water supply	5	7	4	2	..	..	..		..	..	4	4	4	1	..	4	9	18	..	2	10	13	50	..	..
,, ,, defective pedestal	1	1	2	..	..	9	9	12	..	..	12	18	15	2	1	8	9	9	..	..	11	16	11	3	1
,, ,, defective flush pipes	1	1	1	..	..	2	2	2	..	..	2	2	2	..	..	1	1	1	.	..	..	..	..	..	..
,, ,, defective soil pipes	..	..	..	..	..	2	2	1	..	1	..	..	..	..	..	3	3	3	..	..	2	3	2	1	..
,, ,, defective vent pipes	2	2	1	1	..	..	..	..	..	..	..	..	..	..	..	2	2	2	..	..	5	6	5	1	..
,, ,, insanitary troughs	1	2	1	..	..	2	3	2	..	..	3	6	5	1	..	4	4	4	.	..	..	..	..	..	..
,, ,, insufficiently lighted and ventilated	1	3	..	1	..	..	..	..	..	..	1	1	..	1	..	3	3	1	2	..	6	10	..	6	..
Waste water closet tipplers out of order	20	20	23	..	..	16	16	16	..	..	38	39	42	..	..	57	58	61	1	..	65	69	73	1	..
Insanitary Water Closets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	9	9	14	..	1
		c. m.					c. m.					c. m.					c .m.					c. m.			
Offensive privy closets and middens	53	127 77	170	1	1	11	23 12	25	1	..	23	51 29	67	1	..	35	71 42	78	..	..	39	84 46	134	..	..
Defective pail closets	19	44	58	1	..	9	24	28	1	..	7	11	17	..	..	16	40	50	2	..	16	42	48	2	..
Insufficient ashpits	13	22	31		1	9	11	20	..	1	21	38	52	..	..	6	8	8	..	..	38	62	68	4	3
Ashpits without proper doors	24	27	59	..	..	31	36	82	..	..	28	32	76	..	..	20	25	52	..	..	39	46	85	..	..
Ashpit doors without proper fastenings	46	56	133	..	..	22	25	48	..	..	44	51	121	1	..	33	33	72	..	..	25	28	63	..	..
Ashpits to cleanse	21	61	100			3	15	19		..	13	26	50	..	..	29	45	85	..	..	11	15	29	..	..

Nuisances Abated and Sanitary Improvements Effected in connection with Dwelling-houses and other Premises.

	1916	1917	1918	1919	1920
Privy closets converted to fresh-water closets...	106	42	11	43	70
Pail closets converted to fresh-water closets...	31	1	2	16	6
Additional fresh-water closets provided—Outside	15	12	6	4	5
,, ,, ,, ,, Inside...	30	17	13	16	35
Waste-water closets replaced by fresh-water closets	1	2	4	4	8
Trough ,, ,, ,, ,, ...	2	—	3	5	—
Total number of tresh-water closets fixed in connection with old property	185	74	39	88	124
Privy middens altered and converted to dry ashpits...	33	11	0	12	28
,, ,, ,, ashbins...	31	11	1	15	6
Dry Ashpits ,, ,, ashbins...	6	0	1	3	3
Number of ashbins provided (galvanised iron) fixed...	21	8	0	4	3
,, ,, ,, ,, ,, portable	57	20	0	25	10
Number of cesspools cleared out	1	0	3	1	1
Number of dry ashpits provided...	23	10	0	12	31

MEAT INSPECTION.

RAILWAY CATTLE DOCKS.

The number of animals which arrived in the Borough during the past year is as follows :—

Beasts	Sheep and Lambs	Pigs	Calves
4711	162532	3274	56

ABATTOIRS.

During the past year the various animals, carcases, &c., passing through the Public Abattoirs have been carefully examined, both before and after slaughter. The meat retailed in the Borough has not been the usual high standard quality of normal times, but since Government control ceased in July last a better quality of meat has been obtained.

NUMBER OF ANIMALS SLAUGHTERED AT THE ABATTOIRS.

	Beasts	Sheep and Lambs	Pigs	Calves	Total
January	601	991	297	26	1915
February	390	581	335	26	1332
March	402	370	262	70	1104
April	211	215	270	36	732
May	220	166	248	18	652
June	116	1	254	9	380
July	353	2936	197	17	3503
August	408	3279	189	21	3897
September	600	4198	243	21	5062
October	502	2921	238	64	3725
November	552	2172	395	60	3179
December	455	1719	716	28	2918
Total, 1920	4810	19549	3644	396	28399
Total, 1919	5833	14889	3554	535	24811

The above table shows a decrease of 1,023 beasts and 139 calves, and an increase of nine pigs and 4,660 sheep and lambs, as compared with last year.

Number of carcases and amount of meat brought to the Abattoirs :—

	1920		1919		
Sides	1123	.....	325	Increase	798
Quarters	0	.....	0		
Sheep	501	.....	295	Increase	206
Pigs	0	.....	0		
Livers...	92	.....	0	Increase	92
Total...	1716	.....	620	Increase	1096

During the year 152 carcases required special examination, of which number 106 were affected with Tuberculosis in varying degrees. These consisted of 55 cows, 20 bullocks, 6 bulls, 5 heifers, and 20 pigs. Owing to the extent of the disease in 17 cows, 4 bullocks, 3 bulls, 3 heifers, and 5 pigs, it was found necessary to condemn and destroy the entire carcases.

It was also found necessary to condemn and destroy (for causes other than Tuberculosis) the entire carcases of 34 sheep, 8 pigs, and 4 calves, this bringing the number of entire carcases destroyed to 78.

The following organs were also destroyed, viz. :—Beasts : 85 lungs, 52 hearts, 80 livers, 39 kidneys, 30 melts, 49 bellies, 45 skirts, and 41 udders. Sheep : 60 heads, 74 lungs, 74 hearts, and 74 livers. Pigs : 20 lungs, 20 hearts, and 20 livers.

The following were submitted to the Meat Inspector for examination, or were discovered by him in the course of routine inspection outside the Abattoirs, all of which were subsequently surrendered and destroyed :—3 hindquarters and 14 forequarters of beef, 3 boxes corned beef, 258 rabbits, 1 box mackerel, 1 box haddock, 1 box tomatoes, 2 boxes kippers, 1 ham, and 30 geese.

The total amount destroyed during the year was 16,394-lbs., and was condemned for the following causes :—

No. Condemned		Cause	Weight in Lbs.
90	.....	Tuberculosis...	13409
46	.....	Fluke	516
21	.....	Abscess	252
13	.....	Cirrhosis...	171
12	.....	Decomposition	311
28	.....	Unsound	927
2	.....	Immature	62
8	.....	Dropsy	400
5	.....	Injured	108
4	.....	Hydatids	43
2	.....	Mastitis	20
1	.....	Pleurisy	11
1	.....	Traumatic Pericarditis	16
1	.....	Peritonitis...	25
5	.....	Pneumonia	70
1	.....	Necrosis	12
2	.....	Tumour	30
1	.....	Congestion	11
			16,394

On three occasions the Meat Inspector has been called to inspect carcases slaughtered in emergency upon farms in the Borough. In two cases slaughter had been performed sufficiently early to enable the carcases being passed as fit for food, and in one case the carcase of a cow and full offal was condemned, as diseased and unsound.

During the year the butchers' shops, fish shops, &c., have been constantly kept under supervision, regular and frequent visits having been paid to the same; the meat, fish, &c., coming under observation having, with several exceptions, been satisfactory.

FARMS.

There are 63 registered farms within the Borough, this number being the same as last year. 139 visits have been made during the year, and the farm buildings on the whole are in a good sanitary condition.

MILK.—The quality of milk supplied in the Borough, as judged by the samples submitted for analysis, has been fairly good. Sixty-five samples were taken by the Inspector (Mr. Cass) and submitted to the Borough Analyst, and with the exception of three samples were pronounced genuine.

OFFENSIVE TRADES.

125 visits have been paid to the various offensive trade establishments in the Borough. Four complaints were received during the year, but the nuisance in each case was unavoidable, the raw materials, owing to transport difficulties, being received in a decomposed condition. The offensive trades as a whole are carried on with a minimum of nuisance.

BAKEHOUSES.

The bakehouses have been kept under observation, and have been carried on in a satisfactory manner.

Nine scullery bakehouses have been registered during the year, and eight discontinued, the total number in the Borough now being

1 Factory Bakehouse.
2 Wholesale Bakehouses.
2 Cellar Bakehouses.
41 Special Bakehouses.
40 Scullery Bakehouses.
5 Kitchen Bakehouses.

ICE CREAM AND MILK SHOPS.

These have been regularly visited during the year, and no complaints have to be recorded.

KNACKER'S YARD.

119 visits have been paid to the knacker's yard, and there has been no complaints. Several improvements have been carried out to the premises, and they are more satisfactory.

The number of animals received at the yard was 60 cows and 196 horses.

Of the cattle, 38, or 63.3 per cent., were returned as tuberculous; and 22, or 36.7 per cent., as due to some form of inflammation or other causes.

FOOD AND DRUGS.

The Annual Report of the Borough Analyst will be found on page 80.

MILK AND CREAM REGULATIONS, 1912 and 1917.

The following is a report made by Mr. Cass, Food and Drugs Inspector, with regard to the above Regulations, for the year 1920:—

1. MILK AND CREAM not sold as preserved Cream.

	Number of samples examined for the presence of a preservative.	Number in which a preservative was reported to be present.
Milk...	65	Nil.
Cream	0	Nil.

2. CREAM sold as preserved Cream:—None taken.

SCAVENGING.

This work is carried out by the Cleansing Department, which has its own Superintendent, by whom a separate report is made.

HOUSING.

During the year six houses have been examined and dealt with under the Housing and Town Planning Act, the houses having been scheduled under the class which could be made fit for human habitation. In five houses the internal repairs to woodwork, floors, and ceilings was undertaken; also the external work, which included the rebuilding of the back scullery walls, re-roofing a portion of the houses, rebuilding chimney stacks, clearing out privy closets and middens, and replacing by water closets and ashbins. The other house had the internal repairs to floors, woodwork, &c., carried out, walls and ceilings cleansed, and a w.c. fixed inside.

Under the Rent Restriction Act, 17 houses have been examined. In most cases notices have been served on the owners and the necessary repairs have been carried out.

TABLE I.

Table showing Number of Deaths and Rates of the Principal Infectious Diseases for the past Ten Years.

	1911		1912		1913		1914		1915		1916		1917		1918		1919		1920	
	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000	No. of Deaths	Rate per 1000
Smallpox ...	0	0	0	0	0	0	0	0	0	0	1	0·02	0	0	0	0	0	0	0	0
Measles ...	26	0·44	8	0·13	25	0·42	2	0·03	25	0·45	1	0·02	5	0·10	11	0·21	1	0·02	7	0·12
Whooping C.	12	0·20	22	0·37	1	0·02	15	0·25	4	0·07	9	0·17	3	0·06	8	0·15	0	0	10	0·18
Scarlet F'v'r	10	0·17	4	0·07	7	0·12	8	0·13	5	0·09	2	0·04	0	0	1	0·02	0	0	1	0·02
Diphtheria ..	5	0·09	1	0·02	8	0·13	6	0·10	4	0·07	3	0·06	10	0·19	10	0·19	3	0·06	3	0·06
Enteric F....	0	0	2	0·03	3	0·05	1	0·2	0	0	0	0	2	0·04	2	0·04	1	0·02	0	0
Puerperal F.	3	0·05	1	0·02	3	0·05	0	0	1	0·02	0	0	2	0·04	0	0	2	0·04	3	0·06
Erysipelas ..	0	0	2	0·03	0	0	0	0	1	0·02	0	0	0	0	0	0	0	0	0	0
Diarrhœa ...	65	1·11	14	0·24	53	0·89	36	0·60	37	0·67	26	0·48	24	0·46	18	0·35	10	0·18	18	0·32
Influenza ...	8	0·14	4	0·07	10	0·17	18	0·30	26	0·47	16	0·30	10	0·19	146	2·86	133	2·45	24	0·43

TABLE II.

Table showing the Comparative Numbers of Sanitary Conveniences in the Borough in the Years 1902, 1915, 1916, 1917, 1918, 1919, 1920.

	1902	1915	1916	1917	1918	1919	1920
Number of privies	5458	2875	2769	2727	2716	2673	2670
Number of ashpits in connection with privies ...	2867	1606	1575	1564	1563	1548	1515
Number of pails	795	378	347	346	344	328	322
Number of dry ashpits in connection with pails ...	397	234	228	228	227	224	218
Number of mill tanks	44	16	15	15	12	11	10
Number of fresh water closets	1909	5922	6104	6176	6208	6287	6411
Number of waste water closets	1569	2687	2686	2684	2680	2676	2668
Number of dry ashpits in connection with water closets	1042	2291	2314	2324	2324	2336	2367
Number of bins in connection with water closets	374	1647	1725	1753	1753	1782	1795

TABLE III.

RAINFALL for the Year 1920. BURY. (Yard, Parsons Lane).

JAN...Total Rainfall 5·02in.
Greatest fall in 24 hours 0·88in., date January 11th.
No. of days on which 0·01in. or more fell = 25.

FEB...Total Rainfall 4·75in.
Greatest fall in 24 hours 1·38 in., date February 19th.
No. of days on which 0·01in. or more fell = 15.

MAR..Total Rainfall 3·74in.
Greatest fall in 24 hours 0·70in., date March 24th.
No. of days on which 0·01in. or more fell = 23.

APRL.Total Rainfall 5·01in.
Greatest fall in 24 hours 0·59in., date April 22nd.
No. of days on which 0·01in. or more fell = 27.

MAY. Total Rainfall 7·22in.
Greatest fall in 24 hours 2·00in., date May 29th.
No. of days on which 0·01in. or more fell = 21.

JUNE.Total Rainfall 3·16in.
Greatest fall in 24 hours 0·98in., date June 13th.
No. of days on which 0·01in. or more fell = 12.

JULY..Total Rainfall 8·17in.
Greatest fall in 24 hours 1·00in., date July 25th.
No. of days on which 0·01in. or more fell = 29.

AUG..Total Rainfall 2·73in.
Greatest fall in 24 hours 1·45in., date August 4th.
No. of days on which 0·01in. or more fell = 11.

SEP...Total Rainfall 3·02in.
Greatest fall in 24 hours 0·76in., date September 14th.
No. of days on which 0·01in. or more fell = 14.

OCT...Total Rainfall 1·66in.
Greatest fall in 24 hours 0·60in., date October 4th.
No. of days on which 0·01in. or more fell = 9.

NOV...Total Rainfall 1·97in.
Greatest fall in 24 hours 0·75in., date November 14th.
No. of days on which 0·01in. or more fell = 13.

DEC...Total Rainfall 3·86in.
Greatest fall in 24 hours 0·72in., date December 29th.
No. of days on which 0·01in. or more fell = 21.

	1920.	1919.	1918.	1917.	1916.
	ins.	ins.	ins.	ins.	ins.
Total Annual Rainfall	50·31	41·34	55·54	42·37	43·17
Total No. of days on which rain fell	220	199	216	193	220

TABLE IV.

THE BURY AND DISTRICT JOINT WATER BOARD.

RAINFALL AT WORKSHOP YARD, PARSONS LANE.

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
January..	3·16	3·65	1·82	2·09	3·48	5·88	6·72	3·34	3·45	3·29	3·56	2·13	5·39	2·22	4·26	2·86	5·65	1·59	4·87	4·95	2·98	6·22	3·47	3·63	3·79	5·35	5·02
February	6·58	0·50	2·19	2·67	3·84	1·66	3·80	1·84	1·94	3·87	3·86	2·43	3·71	2·74	3·87	2·67	4·27	5·02	1·71	1·73	2·64	5·04	4·75	1·53	5·87	1·19	4·75
March ..	4·29	3·70	5·37	4·14	2·14	2·73	0·68	2·28	2·48	4·72	2·57	3·44	3·51	3·82	3·37	3·39	0·88	2·11	6·46	5·02	5·93	1·89	2·37	2·99	2·13	7·06	3·74
April	1·46	1·76	1·61	2·91	2·15	3·90	2·54	2·57	2·37	2·21	2·64	3·20	2·27	1·85	2·50	3·63	2·71	2·93	1·00	4·96	1·96	1·83	3·59	1·88	1·04	2·59	5·01
May	3·45	0·83	0·41	2·07	4·19	3·18	1·79	0·88	3·00	4·50	2·56	0·52	3·60	4·38	3·16	2·35	3·30	2·46	3·13	3·39	2·55	1·53	2·78	1·58	3·13	2·11	7·22
June	3·29	2·06	2·54	4·74	2·93	1·69	3·57	1·95	1·28	1·66	1·29	3·53	1·97	7·62	2·02	2·69	3·31	3·04	5·95	2·58	1·56	2·75	3·13	2·40	1·87	1·67	3·16
July	3·85	5·33	2·64	1·76	0·56	2·07	2·73	1·56	2·88	3·81	1·86	2·36	1·96	2·81	5·02	6·83	4·14	0·22	5·34	1·17	4·89	4·51	2·02	2·31	3·98	2·07	8·17
August ..	5·03	4·54	2·85	3·97	7·50	1·42	6·76	2·49	3·16	5·36	4·85	5·10	4·75	4·46	3·45	3·24	6·05	2·47	7·58	2·98	3·46	5·62	3·30	6·64	3·64	3·87	2·73
September	0·62	1·81	9·43	4·30	1·37	6·19	1·53	1·70	1·80	5·42	1·45	2·70	1·57	1·20	3·93	2·65	0·21	4·03	1·76	2·06	4·77	0·61	2·78	2·48	12·53	1·88	3·02
October..	4·40	4·07	4·39	2·30	4·37	3·19	6·19	2·82	4·67	9·24	2·38	3·54	7·08	4·09	1·83	5·68	3·58	3·74	5·50	2·01	2·74	1·95	8·52	9·17	4·39	2·76	1·66
November	2·93	3·74	1·49	5·14	3·26	1·48	3·73	6·01	2·39	3·90	4·20	4·49	3·59	3·56	3·03	1·52	5·43	4·50	3·57	5·05	5·90	2·31	3·10	5·35	2·87	3·74	1·97
December	4·30	5·04	5·97	5·43	4·33	3·21	5·50	3·18	3·48	2·06	3·08	0·69	5·01	4·24	3·12	8·01	4·33	7·25	5·34	2·90	6·49	8·36	3·34	2·41	10·10	7·05	3·86
TOTAL..	43·36	37·03	40·71	41·52	40·12	36·60	45·54	30·62	32·90	50·04	34·30	34·13	44·41	42·99	39·56	45·52	43·86	39·36	52·21	38·80	45·87	42·62	43·15	42·37	55·34	41·34	50·31

ANNUAL REPORT OF THE BOROUGH ANALYST.

ANALYTICAL LABORATORIES,

54, ARCADE CHAMBERS, ST. MARY'S GATE,

MANCHESTER,

21st March, 1921.

To the Chairman and Members of the Health Committee of the Corporation of Bury.

GENTLEMEN,

I beg to report that during the year ended December 31st, 1920, your Inspector, Mr. H. C. Cass, submitted 65 samples of milk for analysis. All these samples were formally taken and, with three exceptions, were found to be genuine.

The three exceptions were adulterated with water, containing 2.36 per cent., 4.70 per cent., and 2.71 per cent. respectively. I understand the vendors were duly warned.

The adulteration amounted to 4.6 per cent. of the samples examined.

I remain,

Yours faithfully,

THOS. J. HUTCHINSON, F.I.C.,

Borough Analyst.

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