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AC 4485(1) DARWEN

BOROUGH OF DARWEN.



REPORT

OF

**James Robertson,**

M.B., C.M., D.P.H.,

**Medical Officer of Health,**

AND

**Medical Officer to the Education Committee,**

FOR THE

**Year ending December 31st, 1926.**

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DARWEN :

PRINTED AT THE "NEWS" OFFICE.

MCMXXVII.





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Medical Officer of Health's  
Compliments.*

*Public Health Dept.  
Darwen.*



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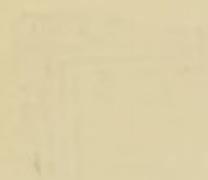
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1870

REPORT

James Robertson

Medical Officer of the

British Army

General Hospital





HEALTH OFFICE,

DARWEN,

April, 1927.

**TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.**

GENTLEMEN,

It affords me pleasure in presenting to you my **FOURTH ANNUAL REPORT**, which is also the **FORTY-NINTH REPORT** since the incorporation of the Borough.

I take this opportunity of thanking all the Members of my Staff for their willing co-operation.

I am,

Your obedient Servant,

**JAMES ROBERTSON,**

Medical Officer of Health.

# Members of the Health Committee

1926-1927.

\* COUNCILLOR W. KNOWLES, J.P., MAYOR.

## Chairman :

\* ALDERMAN W. WORTH, J.P.

## Vice-Chairman :

\* COUNCILLOR R. COCKER.

ALDERMAN J. COCKER, J.P.	COUNCILLOR A. DUCKWORTH.
"    T. W. A. FORREST, M.B.E., J.P., C.C.	"    R. ECCLES.
"    H. C. JEPSON.	"    J. V. HARGREAVES.
"    G. PICKUP, J.P.	"    T. E. HOLGATE, J.P.
"    JOHN B. THORNLEY, J.P.	"    *W. JEPSON.
COUNCILLOR WM. AINSWORTH, J.P.	"    *W. KNOWLES, J.P.
"    J. ASPDEN.	"    E. LEACH.
"    *DR. G. W. BURY.	"    *R. MARSDEN.
"    E. L. CARUS, J.P.	"    *W. A. SHEPHERD.
"    R. S. CATLOW.	"    D. SMITH.
"    *F. C. DUCKWORTH.	"    A. J. WATSON.

\* MEMBER OF HEALTH SUB-COMMITTEE.

TOWN CLERK ..... HARRY ROTHWELL.

## Staff of the Health Department.

MEDICAL OFFICER OF HEALTH .....	} JAMES ROBERTSON, M.B., M.S. D.P.H.
SCHOOL MEDICAL OFFICER .....	
MEDICAL OFFICER OF INFECTIOUS DISEASES HOSPITAL .....	
SANITARY INSPECTORS.....	{ (South Division)—W. E. MARSDEN, M.S.I.A., C.R.S.I. (North Division)—C. R. WALSH, M.S.I.A., M.R.S.I. Appointed Senior Sanitary Inspector, February, 1923, Public Health (Officers) Act, 1921.
VETERINARY OFFICER.....	J. W. MARSLAND, M.R.C.V.S.
SLAUGHTER HOUSE AND MEAT INSPECTOR.....	C. R. WALSH, CERTIF. MEAT INSP.
SHOPS INSPECTOR .....	W. E. MARSDEN.
SUPERINTENDENT OF SCAVENGING.....	JOSEPH NICCOLL.
MATRON, INFECTIOUS DISEASES HOSPITAL .....	MISS E. ANTHONY, R.R.C.
HEALTH VISITORS.....	{ ..... MRS. H. H. SHAWCROSS, CERTIFIED MIDWIFE. ..... MISS E. WORTH, CERTIFIED MIDWIFE, CERT. H.V.
CLERKS.....	F. LITTLECOTT, A.R.S.I., AND E. MCGLYNN

# REPORT.



AREA (Acres), 5,919.

POPULATION : Census (1921), 38,720. Estimated (1926), 38,860.

## Population in Wards.

Wards.	Census, 1921 (Estimated).	(Estimated) 1926.
CENTRAL .....	6,314	6,336
WEST CENTRAL .....	3,474	3,486
NORTH-EAST .....	9,013	9,046
NORTH-WEST .....	6,948	6,972
SOUTH-EAST .....	6,850	6,875
SOUTH-WEST .....	6,121	6,145
<b>TOTAL .....</b>	<b>38,720</b>	<b>38,860</b>

Number of inhabited houses (1921), 10,082 ; (1926), 10,305.

Number of families or separate occupiers (1921), 10,145.

Rateable Value, £218,903 10s. 0d.

Sum represented by a penny rate, £840.

The inhabitants are chiefly of the artisan and labouring classes. The chief occupations include Cotton Weaving, Paper Making, Fire Clay and Iron Workers.

### EXTRACTS FROM VITAL STATISTICS FOR THE YEAR 1926.

	Total.	Males.	Females.	Birth Rate.
BIRTHS—Legitimate .....	523	261	262	} 13.89
Illegitimate .....	17	9	8	
	<u>540</u>	<u>270</u>	<u>270</u>	
DEATHS .....	433	230	203	Death Rate. 11.14

Number of women dying in, or in consequence of Child-birth :—From sepsis, 2 ; from other causes, 4.

Deaths of Infants under one year of age per 1,000 births :—Total, 41 (Rate 75) ; Legitimate, 39 (Rate 74) ; Iilegitimate, 2 (Rate 117).

Deaths from Measles (all ages), Nil.

Deaths from Whooping Cough (all ages), 4.

Deaths from Diarrhoea (under 2 years of age), 2.

Specify any unusual or excessive mortality during the year which has received or required comment :—None.

#### RATES PER 1,000 OF POPULATION.

	Birth-rate.	Death-rate.	Death Rate from Tuberculosis of Respiratory System.	Rate of Deaths under 1 Year to 1000 Births
Mean of 5 years, 1921-1925...	16.51	13.71	0.53	83
1925 .....	14.05	14.13	0.64	119
1926 .....	13.89	11.14	0.28	75
Increase or Decrease in 1926 on :—				
Mean of 5 years, 1921-1925...	-2.62	-2.57	-0.25	-8
Previous year .....	-0.16	-2.99	-0.36	-44

#### BIRTH RATE, DEATH RATE, AND ANALYSIS OF MORTALITY DURING THE YEAR 1926.

Provisional figures. The rates for England and Wales have been calculated on a population estimated to the middle of 1926, while those for the towns have been calculated on populations estimated to the middle of 1925. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns.

	Birth-Rate per 1000 Total Population.	ANNUAL DEATH-RATE PER 1,000 POPULATION.									Rate per 1,000 Births.	
		All Causes.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Violence.	Diarrhoea & Enteritis (under Two Years).	Total Deaths under One Year.
England and Wales.....	17.8	11.6	0.01	0.00	0.09	0.02	0.10	0.07	0.22	0.47	8.7	70
105 County Boroughs and Great Towns, including London .....	18.2	11.6	0.01	0.00	0.12	0.02	0.10	0.10	0.22	0.43	11.8	73
158 Smaller Towns (1921 Adjusted Populations 20,000—50,000) .....	17.6	10.6	0.01	0.00	0.07	0.02	0.11	0.06	0.23	0.40	6.6	67
London .....	17.1	11.6	0.01	0.00	0.20	0.02	0.05	0.12	0.17	0.48	11.8	64
Darwen .....	13.8	11.1	0.00	0.00	0.00	0.00	0.10	0.02	0.02	0.36	3.7	75

## Marriages.

The number of Marriages solemnized in Darwen during the year ending December 31st, 1926, was as follows :—

Church of England .....	130
Nonconformist Places of Worship .....	123
Total .....	253

This means that 506 people were united in the bonds of wedlock, and is at the rate of 13.02 per 1,000 of the population, as compared with 14.10 per 1,000 in the previous year.

Year.	Births.		Deaths.		Marriages.	
	Number	Rate.	Number	Rate.	Number	Rate.
1917	427	11.18	490	14.29	390	21.3
1918	353	9.58	692	21.08	472	12.8
1919	495	12.61	520	13.80	994	25.3
1920	845	21.56	510	13.01	1068	27.2
1921	753	19.44	448	11.57	736	19.0
1922	674	17.37	561	14.45	726	18.7
1923	602	15.44	528	13.54	648	16.6
1924	636	16.28	582	14.90	602	15.4
1925	546	14.05	549	14.13	548	14.1
1926	540	13.89	483	11.14	506	13.0
Average 10 Years ...	587	15.14	531	14.19	669	18.3



## Births.

The number of Children born during the year was : Males 270, Females 270, making a total of 540 ; being 6 less than in the previous twelve months, and at the rate of 0.16 per 1,000 lower than in 1925.

The Birth Rate for the year was 13.89 per 1,000. The highest monthly Birth Rate was 18.83 in January and in February it was the lowest, the figure being 8.64 per 1,000.

**TABLE showing the Estimated Populations, Number of Births, and the Birth-Rates for the Darwen Sanitary District for the last Ten Years.**

Year.	Estimated Population at the Middle of Each Year.	Total Births.	Birth-Rate
1917	38,210	447	11.18
1918	36,814	353	9.58
1919	39,252	495	12.61
1920	39,182	845	21.56
1921	38,720	753	19.44
1922	38,800	674	17.37
1923	38,980	602	15.44
1924	39,060	636	16.28
1925	38,850	546	14.05
1926	38,860	540	13.89

Average Birth Rate for the last 10 years, 15.14.

**BIRTH RATES IN THE VARIOUS WARDS.**

Year.	C.	W.C.	N.E.	N.W.	S.E.	S.W.	Borough.
1917	11.82	10.54	13.74	8.75	10.27	11.11	11.18
1918	8.74	9.81	10.15	9.08	9.54	10.17	9.58
1919	12.30	12.36	14.74	9.39	14.17	12.27	12.61
1920	22.43	18.71	24.90	17.51	22.76	21.23	21.56
1921	22.33	18.13	21.74	14.82	20.14	18.29	19.44
1922	18.01	17.81	19.48	15.51	15.44	17.60	17.37
1923	17.14	16.29	16.32	12.15	15.97	15.09	15.44
1924	16.17	18.83	16.16	13.84	19.24	14.57	16.28
1925	14.84	12.33	17.91	10.90	14.40	11.71	14.05
1926	12.62	16.63	15.14	15.50	13.96	10.41	13.89
Averages for 10 Years.	15.64	15.14	17.02	12.74	15.58	14.24	15.14

**ILLEGITIMATE BIRTHS.**

Seventeen Children were born out of wedlock during the year. This gives a rate of 3.14 per cent. of total births. Since 1917 the average annual number is 23.

The rate per cent. of Births averages 3.98, and 1922 is the highest with 5.48.

The Infantile Mortality Rate of Illegitimates for the year was 117, and the average for the last 10 years was 144.

**TABLE showing number of Illegitimate Births, Etc., during the past Ten years.**

Year.	Number of Births.	Rate % of Total Births.	No. of Deaths under 1 Year.	Death-rate per 1,000 Births.
1917	17	3.96	2	118
1918	16	4.53	3	188
1919	22	4.44	5	227
1920	35	4.14	6	171
1921	34	4.52	3	88
1922	37	5.48	6	162
1923	20	3.32	4	200
1924	23	3.61	1	43
1925	15	2.74	2	133
1926	17	3.14	2	117
Average .....	23	3.98	3	144

**ILLEGITIMATE BIRTHS.**

	Number	Percentage of Births.
JANUARY .....	0	0.00
FEBRUARY .....	0	0.00
MARCH .....	0	0.00
APRIL .....	1	2.04
MAY .....	4	7.01
JUNE .....	2	4.34
JULY .....	3	5.66
AUGUST .....	1	3.12
SEPTEMBER .....	1	2.63
OCTOBER .....	0	0.00
NOVEMBER .....	0	0.00
DECEMBER .....	5	9.43
	17	3.14

**BIRTHS IN WARDS, 1926.**

	Central.		West-Central.		North-East.		North-West.		South-East.		South-West.		Total.		Rate per 1,000 estimated Population
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
January .....	2	8	5	5	7	6	4	4	7	5	5	3	30	31	18.83
February .....	2	0	1	1	5	2	2	2	2	5	1	5	13	15	8.64
March .....	2	1	3	3	5	2	6	6	3	5	4	1	23	18	12.66
April .....	6	6	5	1	6	6	6	1	2	3	1	6	26	23	15.13
May .....	6	4	7	2	11	5	4	8	3	2	2	3	33	24	17.60
June .....	0	5	1	4	5	3	6	4	6	6	4	2	22	24	14.20
July .....	1	8	3	4	6	9	6	5	3	4	2	2	21	32	16.36
August .....	1	5	3	2	7	4	3	2	2	1	2	0	18	14	9.88
September .....	4	1	0	4	5	5	1	5	7	2	3	1	20	18	11.73
October .....	3	2	0	0	7	5	8	1	4	8	3	3	25	19	13.58
November .....	3	2	0	0	4	7	5	4	6	1	3	3	21	17	11.73
December .....	2	6	1	3	5	10	4	8	3	6	3	2	18	35	16.36
	32	48	29	29	73	64	55	50	48	48	33	31	270	270	13.89
<b>TOTAL</b> .....	80		58		137		105		96		64		540		
Population .....	6,336		3,486		9,046		6,972		6,875		6,145		38,860		
Birth-rate .....	12.62		16.63		15.14		15.50		13.96		10.41		13.89		

## Deaths.

The total number of Deaths during the year was 433 ; Males 230, Females 203 ; being a decrease of 116 on the previous year.

The Death Rate for the year is 11.14, a decrease of 2.99 on the previous year.

The number of Deaths of Residents in Institutions, etc., outside the district was 98, which has been added to the 335 deaths registered within the district, making a total of 433.

These Deaths are reported to me quarterly by the Registrar General, through the County Medical Officer of Health.

The number of Deaths in the Union Workhouse, Blackburn, was ...	41
,, ,, ,, Royal Infirmary, Blackburn .....	42
,, ,, ,, other Institutions and Places .....	15

Fifteen Deaths of Non-Residents occurred in the town during the year.

## INQUESTS.

There were 24 Inquests held during the year, compared with 26 during 1925. The following were the verdicts :—

	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
Accidental Death.	15	16	12	17	12	15	12	16	12	8
Natural Causes ..	3	8	12	14	9	8	18	11	7	10
Suicide .....	4	2	2	9	4	5	7	1	7	6
	22	26	26	40	25	28	37	28	26	24

**Death Rates per 1,000 of the Population in the various Wards of the Borough.**

WARDS Population	Central 6336	West- Central 3486	North- East 9046	North- West 6972	South- East 6875	South- West 6145	Borough 38860
1926							
January.. . . .	11.36	6.88	13.26	8.60	8.72	3.90	9.26
February .....	3.78	3.44	14.59	12.04	8.72	7.81	9.26
March .....	11.36	3.44	5.30	10.32	3.49	11.71	7.72
April.....	9.46	6.88	1.32	6.88	8.72	13.66	7.41
May .....	15.15	3.44	7.95	10.32	10.47	5.85	9.26
June .....	15.15	3.44	11.93	6.88	3.49	9.76	8.95
July .....	0.00	6.88	9.28	5.16	5.23	7.81	5.86
August .....	11.36	13.76	5.30	15.49	5.23	3.90	8.64
September ..	9.46	10.32	2.65	8.60	3.49	9.76	6.79
October.....	3.78	6.88	2.65	15.49	8.72	9.76	7.72
November... ..	15.15	3.44	11.93	6.88	10.47	7.81	9.88
December.....	13.25	0.00	17.24	15.49	13.96	7.81	12.66
Transfers.....	26.51	34.42	31.83	22.37	36.65	31.24	25.20
Rate for year...	12.15	8.60	11.27	12.04	10.61	10.90	11.14

**Death Rates in the various Wards for the past Ten Years.**

Year	C.	W.C.	N.E.	N.W.	S.E.	S.W.	Borough.
1917	15.35	9.80	17.68	12.88	13.01	14.26	14.29
1918	21.67	20.46	23.60	16.19	21.25	22.81	21.08
1919	14.13	11.89	16.31	12.14	12.58	14.32	13.80
1920	14.53	12.73	13.30	11.40	13.01	12.80	13.01
1921	13.30	12.09	12.75	12.08	8.46	10.61	11.57
1922	15.48	15.22	14.28	15.80	11.94	14.50	14.45
1923	14.15	12.58	12.56	15.01	14.93	11.67	13.54
1924	14.91	23.97	13.30	17.69	13.89	12.14	14.90
1925	14.84	16.64	13.60	14.06	11.35	15.95	14.13
1926	12.15	8.60	11.27	12.04	10.61	10.90	11.14
Average...	15.05	14.39	14.86	13.92	13.10	13.99	14.19

**CAUSES OF DEATH IN DARWEN, M.B., 1926.**

Causes of Death (Civilians only).	Males.	Females.
All Causes.	230	203
1. Enteric Fever .....	—	—
2. Small Pox .....	—	—
3. Measles .....	—	—

Causes of Death (Civilians only).	Males.	Females.
4. Scarlet Fever .....	—	—
5. Whooping Cough .....	2	2
6. Diphtheria .....	1	—
7. Influenza .....	—	1
8. Encephalitis Lethargica .....	3	1
9. Meningococcal Meningitis .....	—	—
10. Tuberculosis of Respiratory System .....	7	4
11. Other Tuberculous Diseases .....	4	2
12. Cancer, malignant disease .....	33	26
13. Rheumatic Fever .....	—	1
14. Diabetes .....	1	4
15. Cerebral Hæmorrhage, etc. ....	12	14
16. Heart Disease .....	27	42
17. Arterio-sclerosis .....	10	6
18. Bronchitis .....	24	7
19. Pneumonia (all forms) .....	15	9
20. Other Respiratory Diseases .....	6	5
21. Ulcer of Stomach or Duodenum .....	2	2
22. Diarrhœa, etc. (under 2 years) .....	1	1
23. Appendicitis and Typhlitis .....	3	2
24. Cirrhosis of Liver .....	1	1
25. Acute and Chronic Nephritis .....	8	11
26. Puerperal Sepsis .....	—	2
27. Other accidents and diseases of pregnancy and parturition .....	—	4
28. Congenital debility and malformation, premature birth .....	13	7
29. Suicide .....	6	—
30. Other Deaths from violence .....	5	—
31. Other defined diseases .....	43	46
32. Causes ill-defined or unknown .....	3	3
Special Causes (included above)—		
Poliomyelitis .....	—	—
Polioencephalitis .....	—	—

Causes of Death (Civilians only).	Males.	Females.
Deaths of Infants under 1 years of age—		
Total .....	27	14
Illegitimate .....	2	—
<hr/>		
Total Births .....	270	270
Legitimate .....	261	262
Illegitimate .....	9	8
<hr/>		
Population .....	38,860.	

The death rate for the year was 11.14 per 1,000.

### ZYMOTIC DEATH RATE.

1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
2.0	1.2	1.7	1.9	2.2	1.1	2.1	2.2	1.6	2.08	2.34	2.90	2.14	1.03	0.76	2.07	1.00	1.14	0.69
<hr/>																		
1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
0.76	1.10	0.51	1.51	0.86	0.27	0.44	1.42	0.54	0.32	0.42	0.19	0.12	0.12	0.64	0.07	0.20	0.66	0.15

Mr. J. Pomfret, financial secretary to the District Nursing Association, has kindly supplied me with the following particulars :—

	Gross Income.			Net. Expenditure.		
	£	s.	d.	£	s.	d.
1925 .....	2,075	9	5	1,891	10	9
1926 .....	2,315	12	3½	1,895	6	11

An Orthopædic Clinic for treatment of cases has been established in connection with this Association.

The Blackburn and East Lancashire Royal Infirmary is an Institution standing at the Southern end of the neighbouring Borough of Blackburn.

Every case sent from Darwen is admitted.

The Secretary, Mr. Nathan A. Smith supplied the following information of patients from Darwen treated in this Institution.

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
In-Patients ...	281	247	276	345	356	360	394	400	403	427	483
Out-Patients .	621	623	663	722	700	756	766	822	824	832	1166

Based upon the ordinary expenditure for the year, the Cost of Treatment of these Patients for the year 1926 was £3,387.

There have been no causes of sickness or invalidity worthy of special note during the period under review. No conditions of employment or environment appear to have had a prejudicial effect on health.

## GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

### HOSPITAL ACCOMMODATION.

For Smallpox—The Corporation have entered into an agreement with the Blackburn Corporation whereby three beds are reserved for the use of Darwen patients in Finnington Hospital, Blackburn.

For other Infectious Diseases—Scarlet Fever, 1 block, 24 beds ; for Typhoid Fever 8 beds at Bull Hill Hospital.

These properties are owned by the Corporation.

The Typhoid Fever block at Bull Hill Hospital is loaned to the Lancashire County Council for the treatment of Pulmonary Tuberculosis.

During the year 47 cases of Scarlet Fever, and 4 of Erysipelas were admitted to the Hospital.

There is accommodation provided at Bull Hill Hospital for the treatment of Tuberculosis. The patients are admitted through the Lancashire County Tuberculosis Committee.

During the year 57 patients were sent by the County Committee to Bull Hill Pulmonary Hospital.

There is no hospital accommodation (locally) for the treatment of maternity cases, or for children's ailments. The Queen's Park Hospital, Blackburn, is the Union Infirmary for Darwen, etc., and admits maternity and other cases from Darwen as required. They have at this hospital a maternity section and an open-air section for cripple children, and carry out orthopædic work. The only other public institution in the immediate vicinity is the Royal Infirmary, which stands at the Southern end of the neighbouring County Borough of Blackburn.

There is no Institutional provision for unmarried mothers, illegitimate infants, and homeless children, in the town, other than sending them into Queen's Park Hospital, Blackburn.

Two Maternity and Child Welfare Centres have been established. One at No. 43, Bolton Road, is open daily from 9 to 10 a.m. and 4-30 to 5-30 p.m. Special afternoon sessions are held every Tuesday and Wednesday from 2-30 to 5 p.m. The other Centre is at Greenfield Institute and an afternoon session is held on Thursdays from 2-30 to 5 p.m.

We have no Day Nursery.

There is one School Clinic (at Holker House), established and maintained by the local Education Authority.

At 20, Railway Road, Darwen, there is a Tuberculosis Dispensary, under the direct control of the Lancashire County Council, where patients attend for examination once each week. X-Ray Examinations of patients are carried out at this dispensary, where there are special rooms fitted up for these purposes.

Venereal Diseases are treated at Blackburn Royal Infirmary.

#### **AMBULANCE FACILITIES.**

For the removal of Infectious cases we have one horse-drawn ambulance. For non-infectious and accident cases a motor ambulance is available at Mr. H. Harwood's, "Station Garage," in agreement with the Town Council and during 1926 was called out on 239 occasions.

#### **PUBLIC HEALTH OFFICERS.**

For particulars of Staff see page 4.

#### **PROFESSIONAL NURSING IN THE HOME.**

Arrangements in the district for—(a) General Nursing. There is a District Nursing Association in the town employing about six nurses. Districts are allotted to these nurses. They attend the sick and carry out the physicians instructions. (b) For Infectious Diseases the Council make a grant to the said District Nursing Association of £10 10s. 0d. and pay 1/- per nursing visit for attendance upon cases of Puerperal Fever, Puerperal Pyrexia, Pneumonia (in children up to 5 years old), Infantile Diarrhoea, Ophthalmia Neonatorum, and Anterior Poliomyelitis.

The Council make the following grants annually to voluntary hospitals : £10 10s. 0d. Royal Infirmary, Manchester ; £5 5s. 0d. St. Mary's Hospital, Manchester ; £5 5s. 0d. Royal Infirmary, Blackburn.

The Local Authority has instituted a scheme for the supply of milk for necessitous infants and expectant and nursing mothers. During 1926 free grants in necessitous cases were made as follows :—

Milk value £53 3s. 1½d., Dried Milk £13 10s. 6d., a total of £66 13s. 7½d.

### MIDWIVES.

None employed by the Local Authority.

On the County Council Register there are 15 Midwives, all of whom are practising in the Borough.

The number of midwives practising is sufficient for the district.

### CHEMICAL WORK.

The two Sanitary Inspectors, each in his own district, take samples of water and milk for analysis that is thought necessary. During the year 38 samples of cows milk have been taken. One sample was found to be deficient in milk fats. Proceedings were instituted, but were ultimately withdrawn on account of an error in the service of notice.

### LEGISLATION IN FORCE.

Local Acts .....	Darwen Corporation Act .	Operative from 1887.
	Darwen Corporation Act .	1899.
Local Orders .....	Darwen Order .....	1912.
General Adoptive Acts ...	Public Health Acts (Amendment) Act, 1890 (Certain Sections) .....	27th October, 1890.
	The Infectious Diseases (Prevention) Act, 1890 (Certain Sections) .....	27th October, 1900.
	Public Health Acts (Amendment) Act, 1907 (Certain Sections) .....	15th January, 1912.
	Public Health Act, 1925 ..	1st April, 1926.
Bye-laws relating to Public Health .....	Nuisances—Snow, filth, dust, ashes, rubbish, keeping of animals .....	3rd March, 1881.
	Slaughterhouses .....	3rd March, 1881.
	Common Lodging Houses.	3rd March, 1881.
	Prevention of waste, mis- use or contamination of water .....	5th June, 1891.
	Public Slaughterhouses ...	9th April, 1896.

All the powers granted under the various Acts and Orders are put into operation when necessary. We have no difficulty in getting the public to comply with our requests. This is evidenced by the fact that no prosecutions were undertaken.

## **SANITARY CIRCUMSTANCES OF THE AREA.**

### **WATER SUPPLY.**

The water is collected mostly from Moorland, and is of good quality.

The service is a constant one.

The approximate number of dwellinghouses supplied direct is 10,305. There is no supply by stand pipe.

There is no possibility of contamination in the vicinity of dwellinghouses.

There is no liability to plumbo-solvent action as the water is first treated and the lead supply pipes are tin washed.

There is no insufficiency.

No extensions were required during the year.

The amount used during the year was 360,605,000 gallons ; 52,767,000 being for trade purposes, the remainder for domestic use at the rate of 21.7 gallons per head per day.

The total Rainfall for the year on the Watershed was 51.59 inches, and in Bold Venture Park 52.96 inches. We had rain on 234 days.

The heaviest Rainfall was in November with 8.83 inches, and the lowest in April, with 1.99 inches.

### **RIVERS AND STREAMS.**

The river is regularly sampled for pollution. Inspections are also made by the Sanitary Inspectors. It appears to me necessary that paving of the river bed should be seriously considered.

## DRAINAGE AND SEWERAGE.

The Bacteriological method is the one in use for the treatment of sewage, and appears to be efficient.

The Drainage system of the town is the one known as the combined system. Owing to the extension of the sewer along Bull Hill Road, to the Hospital, during 1925, we have been enabled to convert several pails to the water carriage system.

There are a few scattered houses situated in outlying parts of the town to which our drainage system has not yet been extended. These houses are still on the pail system and necessitate the collection and removal of the excreta by the Local Authority.

The Water and Smoke tests are applied to drains.

Sewers are frequently flushed.

## CLOSETS AND ASHPITS.

The following constitutes the accommodation in this respect at the end of the year in question—

Pails .....	202
Water Closets .....	8426
Waste Water Closets .....	2378
Cesspools .....	2
Total .....	<hr/> 11008 <hr/>

Conversions and Installations during 1926 :—

New Water Closets fixed .....	85
Premises with one New Closet fixed .....	74
Premises with more than one New Closet fixed .....	3
Pails converted to Water Closets .....	12
Waste Water Closets converted to Water Closets .....	18
Baths installed during the year .....	100
Urinals installed during the year .....	4

Comparative Conversions :—

	During year 1926.	During Five Years 1921-1925.
No. of Privy Closets—		
To Fresh W.C.'s .....	—	—
To Waste W.C.'s .....	—	—
To Pails, etc. ....	—	—
No. of Pail Closets—		
To Fresh W.C.'s .....	12	1515
To Waste W.C.'s .....	—	—
No. of Waste W.C.'s to Fresh W.C.'s .....	18	75
No. of Houses at which Moveable Ashbins have been substituted for fixed receptacles .....	—	3

There are 12 Dry Ashpits and 10,745 portable refuse receptacles, the majority of which are ashes tubs and placed under covered sheds in the yards.

The Corporation under the provisions of a Local Act contribute half cost of conversions of pails to fresh water closet. In new property only fresh water closets are allowed to be fixed.

The Pail Closets still left are outside the sewered areas of the Borough and cannot be dealt with at present.

We have no privy middens.

### SCAVENCING.

The Scavenging and collection of House Refuse is efficiently carried out by the Sanitary Authority.

We have only one motor vehicle the rest being horse drawn.

House refuse is burnt in a Meldrum's Destructor which is situated near the Electricity Works.

### SANITARY INSPECTION OF THE AREA.

No. of premises visited :—3,302.

Defects or Nuisances:—No. discovered, 1,172 ; No. abated, 1,136.

No. of Notices served :—Informal, 1,098 ; Statutory, 297.

Legal Proceedings :—Nil.

For details refer to pages 49 and 63.

### **SMOKE NUISANCE.**

Advice has frequently been given to furnacemen in regard to the methods of stoking.

The Inspectors took 50 observations, each of one hour's duration, during the year.

It was not necessary to institute legal proceedings but one statutory notice was served upon the occupiers of a mill for an emission of Black Smoke in excess of the time limit.

The time limit allowed per hour, for the emission of Black Smoke is as follows:—One, two or three boilers, 5 minutes per hour. Four or more boilers, 7 minutes per hour.

### **OFFENSIVE TRADES.**

Three firms carry on offensive trades within the Borough, i.e., Tripe Boiling and Gut Scraping. The conduct of the trade is carried out satisfactorily in each case.

### **WORKSHOPS AND WORKPLACES.**

The Workshops and Workplaces are on the whole in a fairly good condition.

### **COMMON LODGING HOUSES.**

The Municipal Model Lodging House is the only common lodging house in the town, and is frequently visited and inspected by Inspector Walsh.

The average daily number of lodgers for the year was 91.34, including women, as compared with 105.67 for the previous year, a decrease of 14.33.

### **HOUSES LET IN LODGINGS.**

During 1926 no action was taken respecting the above. It is proposed to frame byelaws for approval by the Ministry of Health, in accordance with the Public Health Act, 1925.

### **TENTS, VANS, SHEDS.**

No action has been taken nor is any needed. We have not had in this district any people living in tents, vans or sheds.

## UNDERGROUND SLEEPING ROOMS.

There is no need for regulations as we have no such rooms in Darwen.

## SCHOOLS.

The condition of the Schools on the whole is good, the water supply, etc., being also good.

It was not found necessary to close any school on account of outbreaks of infectious disease.

The Schools are inspected by the Sanitary Inspectors four times per annum during the holiday periods. At these periods the floors and furniture are washed and the walls are swept ; all lavatories are specially attended to and limewashed.

## Housing.

### HOUSING STATISTICS FOR THE YEAR, 1926.

No. of new houses erected during year—

(a) Total (including numbers given separately under (b) .....	56
(b) With State assistance under the Housing Acts—	
(i.) By the Local Authority .....	10
(ii.) By other bodies or persons .....	44

No. of houses in course of erection under Council's Building Scheme ... Nil.

Financial assistance for purposes of increasing housing accommodation—

Have any advances been made during 1926—

(a) By loans? No. No., —. Amount of Loans, Nil.

(b) By subsidy? Yes. No., 54. Amount of Subsidies, £3,882 10s. 0d.

### UNFIT DWELLINGHOUSES.

Inspection—(1) Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts) .....	3302
(2) No of dwellinghouses which were inspected under the Housing Consolidated Regulations, 1925 .....	97

(3) No. of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .....	10
(4) No of dwellinghouse (exclusive of those referred to under 3) found not to be in all respects reasonably fit for human habitation .....	87

#### REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

No. of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their Officers .....	40
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#### ACTION UNDER STATUTORY POWERS.

##### A.—Proceedings under Section 3 of the Housing Act, 1925—

(1) No. of dwellinghouses in respect of which notices were served requiring repairs .....	0
(2) No. of dwellinghouses which were rendered fit after service of formal notices :—	
(a) By owners .....	0
(b) By Local Authority in default of owners .....	0
(3) No. of dwellinghouses in respect of which Closing Orders became operative in pursuance of declaration by owners of intention to close .....	0

##### B.—\*Proceedings under Public Health Acts—

(1) No. of dwellinghouses in respect of which notices were served requiring defects to be remedied .....	60
(2) No. of dwellinghouses in which defects were remedied after service of formal notices :—	
(a) By owners .....	60
(b) By Local Authority in default of owners .....	0

##### C.—Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925—

(1) No. of representations made with a view to the making of Closing Orders .....	1
(2) No. of dwellinghouses in respect of which Closing Orders were made .....	1
(3) No. of dwellinghouses in respect of which Closing Orders were determined, the dwellinghouses having been rendered fit ...	1

(4) No. of dwellinghouses in respect of which Demolition Orders were made .....	0
(5) No. of dwellinghouses demolished in pursuance of Demolition Orders .....	0
D.—No. of houses demolished voluntarily by owners, or converted to workshops, etc. ....	5

\* Refers only to action taken in reference to housing defects. Notices with regard to drainage and other defects should be included under Sanitary Inspections.

### **GENERAL HOUSING CONDITIONS IN THE AREA.**

The houses are mostly built of stone. The newly-built houses are, however, of brick. There are a few houses in certain areas of the town which require much repairing to keep them in reasonable order. Generally the houses are of a good quality both in building and accommodation.

Estimating for displacements that may occur in the poorest part of the town due to clearance scheme and overcrowding, we calculate that about 100 houses may be required.

Building is at present being conducted by the Darwen Industrial Co-operative Society, Ltd., and several local contractors.

Fifty-six houses were erected during the year. The Corporation, Darwen Industrial Co-operative Society and several local contractors are erecting houses during 1927.

### **OVERCROWDING.**

No definite cases of overcrowding have come to our notice although amongst the poorer classes there are cases of more than one family occupying a house.

### **UNHEALTHY AREAS.**

There is no unhealthy area in the town requiring to be dealt with as such, except the Bury Street Area, which is now being demolished.

## **INSPECTION AND SUPERVISION OF FOOD.**

### **MILK SUPPLY.**

The milk supplied in Darwen is of good quality.

The Milk and Dairies (Consolidation) Act, 1915, The Milk and Dairies (Amendment) Act, 1922, and The Milk and Dairies Orders, 1926, are all being complied with according to the various provisions. The Sanitary Inspectors carry out the duties and make the necessary inspections. The books and certificates required by the Acts and Orders are kept up-to-date.

Under the Milk (Special Designation) Order, two Dealers' Licenses to sell " Certified " Milk, and one to sell " Grade A " Milk have been granted.

There has been no refusal or revocation of registration of retailers or of licenses for graded milk.

The Dairies, Cowsheds, and Milkshops are periodically inspected. Their condition is fairly good.

There are 84 cowkeepers on the Registers and 37 Dairymen or Milk Purveyors (other than cowkeepers). One hundred and twenty-four Inspections have been made by the Inspectors during the year.

When necessary the veterinary surgeon is called in to inspect dairy cows.

Regarding tuberculous milk one sample was submitted for bacteriological examination but proved on analysis to be negative. A large number of cattle was clinically examined by the Borough Veterinary Inspector regarding the quality of milk given, and he reported that in his opinion he did not find clinical evidence in any case to warrant bacteriological examination.

Regarding tuberculous cattle, eight cases were reported to me and confirmed. In seven of these cases we paid compensation to the owners on the one-fourth value scale. In the other cases the animal was found to be dead when the Veterinary Inspector arrived to make the necessary examination and no compensation was paid.

### **MEAT, ETC.**

The stalls, shops, stores and vehicles are under the supervision of the Inspectors and the provisions of the Regulations are being complied with. The premises are visited regularly and strict supervision is kept.

## **SLAUGHTERHOUSES.**

A public slaughterhouse has been provided and this is conducted satisfactorily.

There is only one private licensed slaughterhouse in the town.

## **BAKEHOUSES.**

There are 117 Bakehouses and on the whole they are in a fairly good condition.

The amount of food surrendered or condemned as unfit for human consumption is as follows—

- (a) Tuberculous carcasses and parts—Approximate weight, 7,299 lbs., taken from 48 Beasts, 3 Pigs, and 2 Calves.
- (b) Diseased, unsound or unwholesome meat, other than above—Approximate weight, 6,864 lbs., taken from 426 Beasts, 260 Sheep, 1 Calf and 37 Pigs.
- (c) Other Foodstuffs—12 lbs. Corned Beef, 60 Baskets Strawberries, 240 lbs. ; 70 lbs. Skate ; 4 Boxes Oranges, approximately 2,016 ; 10 Boxes Canadian Pears, 400 lbs.

It was not necessary to institute any legal proceedings.

There have been no cases of food poisoning reported to me during the year.

## **SALE OF FOOD AND DRUGS ACTS.**

Thirty-eight samples of cows' milk were purchased by the Inspectors and submitted for analysis. One sample was found to be deficient in milk fats. Proceedings were instituted, but were ultimately withdrawn on account of an error in the service of notice.

We have not taken any action during the year in respect of Condensed Milk Regulations, 1923, Dried Milk Regulations, 1923, or the Milk and Cream Regulations, 1912-1917.

**PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.  
INFECTIOUS DISEASES GENERALLY.**

During the year 87 cases of Scarlet Fever and 17 cases of Erysipelas were the main infectious diseases arising. It is, however, to be noted that these cases were more or less scattered evenly throughout the year and were of a sporadic nature, no evidence of any localised cause being found.

**COMPARATIVE TABLE OF INFECTIOUS DISEASES  
DURING THE YEARS 1921-1926.**

YEAR.	Diphtheria and Croup.	Erysipelas.	Scarlet Fever.	Typhoid Fever.	Puerperal Fever.	Puerperal Pyrexia.	Tuber- culosis.	Ophthalmia Neonatorum.	Measles & German Measles.	Pneumonia.	Malaria.	Cerebro- Spinal Fever.	Dysentery.	Polio- mye- litis.	Encephalitis Lethargica.	Trench Fever.	Total.
1921 ...	10	5	24	1	1	...	31	...	13	7	3	1	1	1	3	1	102
1922 ...	7	8	220	4	1	...	46	3	951	6	...	...	...	...	...	...	1246
1923 ...	6	10	147	2	4	...	53	2	239	9	...	1	...	...	3	...	476
1924 ...	2	6	37	...	5	...	42	4	...	34	...	...	...	...	5	...	135
1925 ...	6	9	33	3	4	...	45	2	...	89	...	...	...	1	5	...	197
1926 ...	8	17	87	...	4	2	24	3	...	29	...	1	...	1	6	...	182

Under the Diphtheria Anti-toxin Order of 1910, a supply of Anti-toxin is kept at the Health Office and the Police Station, and the amount supplied free of charge to local practitioners during 1926 was 204,000 units. The Anti-toxin is promptly used.

Six cases of Encephalitis Lethargica were notified. The cases were sporadic, had no connections whatever with one another, the families were in no way related, and in no circumstances was there more than one case in the same area in the town. Of these cases four died during the year, three of the four dying in Blackburn Royal Infirmary, one dying at home. Regarding the other two cases one, a child aged five years, has recovered and appears normal in every way except that she is now blind as a result of cortical injury. Case No. 2, also living. This patient has entirely recovered. The question of diagnosis was doubtful.

We have discovered no "return" cases of Scarlet Fever.

During the year 29 cases of Pneumonia were notified. Eight of these died, giving a mortality rate of 275 per 1,000. There were, however, 24 deaths registered, by death certificate. This shews 16 deaths occurring in other forms of Pneumonia which are not notifiable, and therefore, so far as

the Health Department is concerned, we cannot say how many cases of non-notifiable Pneumonia arose as complications during the course of some other disease. As there has been no prevalence of either measles or whooping cough during the year such a number of deaths from non-notifiable Pneumonia suggests itself as opening up a line of inquiry into the causes of these Pneumonias and as to their probable numbers throughout the community. Assuming the same mortality rate for non-notifiable Pneumonia as we find for the notifiable forms this will give us roughly a morbidity rate of about 60 cases. These lines of enquiry I propose to take during the present year.

### LABORATORY WORK.

The Corporation have an arrangement with the Public Health Laboratory, York Place, Manchester, for the examination of Pathological and Bacteriological specimens, the Corporation paying the necessary fees.

The number of Bacteriological Examinations is as follows—Blood 3, Sputum 21, Throat Swabs 30, others 1 (Fæces).

In addition the Tuberculosis Officer's Department (Dr. MacPhee's) have examined 99 specimens of Sputum with a positive result in 9 cases and a negative result in 90.

**Table showing the number of Pathological Specimens which have been sent for examination to the Public Health Laboratory, Victoria University, Manchester.**

YEAR.	Diphtheria.				Typhoid Fever.				Tuberculosis Sputum.			Cerebro-Spinal Fever.					
	Posi- tive.	Nega- tive.	Doubt ful.	Total	Posi- tive.	Nega- tive.	Doubt ful.	Total	Posi- tive.	Nega- tive.	Total	Spinal fluid			Swabs.		
												Posi- tive.	Nega- tive.	Total	Posi- tive.	Nega- tive.	Total
1922.....	5	9	...	14	5	5	...	10	2	13	15	...	...	...	..	...	...
1923.....	8	23	2	33	2	4	...	6	3	12	15	...	...	...	...	...	...
1924.....	...	4	...	4	...	1	...	1	...	17	17	...	...	...	...	...	...
1925.....	5	12	...	17	3	1	...	4	2	16	18	...	...	...	..	...	...
1926.. .....	7	23	...	30	...	3	...	3	2	19	21	...	...	...	...	...	...

Contacts are kept under observation after removal of patients and disinfection of houses. During the year we had no return cases. Any suspicious carrier cases are examined in the usual way, bacteriologically and clinically, and dealt with accordingly.

No use has been made of the tests known as the Schick and Dick Tests, in Diphtheria and Scarlet Fever respectively, or of the recently developed artificial methods of immunization against these diseases as I do not think it wise at the present moment to push these tests.

No vaccinations have been performed by the Medical Officer of Health under the provisions of the Public Health (Smallpox) Regulations, 1917.

It has not been necessary to make any of the following diseases compulsorily notifiable—Measles, Whooping Cough, Diarrhoea (under 2 years), Chicken-pox, or any other disease.

Number of Special Reports made under Art. XIX. (15 and 16) Sanitary Officers' Order, 1910?—Nil.

No special inquiries have been undertaken in connection with epidemics from Influenza, locally contracted anthrax or rabies.

### DISINFECTION AND DISINFESTATION.

The number of houses disinfected during the year was 140. The Disinfecting medium used being either Sulphur or Formalin.

#### LIST OF ARTICLES DISINFECTED DURING 1926.

Beds	Mattresses	Bolsters	Pillows	Quilts	Blankets	Sheets	Suits of Clothes	Carpets	Rugs	Curtains	Cushions	Shawls	Sundries
112	4	82	173	94	203	60	1	0	0	0	10	3	61

Total articles Disinfected, 803.

Arrangements have been made for bathing verminous, etc., persons if occasion arises.

Disinfestation was carried out in seven instances.

### NOTIFIABLE DISEASES.

Number of cases of infectious disease notified, number of deaths from these diseases, number of cases removed to hospital, and deaths in hospital during the year 1926 :—

DISEASE.	CASES NOTIFIED.													Total Deaths	Hospital.		
	Total Cases at all Ages.	YEARS.													Total Cases removed to Hospital.	Deaths in Hospital of persons belonging to district.	
		Un-der 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over				
Smallpox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	87	...	1	5	9	16	44	9	2	1	...	...	...	...	...	47	...
Diphtheria, including Membranous Croup	8	...	...	...	...	1	2	...	...	4	...	1	...	...	1	...	...
Enteric Fever (including Paratyphoid) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Primary Pneumonia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Influenzal Pneumonia	29	...	1	2	...	...	...	3	5	10	1	7	...	8	5	1	...
Puerperal Fever ... ..	4	...	...	...	...	...	...	...	...	2	2	...	...	1	...	...	...
Puerperal Pyrexia ... ..	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...
Cerebro-Spinal Fever ... ..	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis ... ..	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
Acute Polio-encephalitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica ... ..	6	...	...	1	...	...	1	1	...	2	...	1	...	4	3	3	...
Dysentery ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum ... ..	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	17	...	...	...	...	...	...	...	...	1	3	4	9	2	6	2	...
Pulmonary Tuberculosis... ..	18	1	...	...	...	...	...	...	...	1	8	3	4	11	22	4	...
Other forms of Tuberculosis... ..	6	...	...	...	...	...	2	...	...	3	1	...	...	6	3	2	...
Malaria ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Any other diseases notifiable in district, <i>e.g.</i> :—	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles (excluding German Measles) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...
Any other disease ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals... ..</b>	<b>182</b>	<b>5</b>	<b>2</b>	<b>8</b>	<b>9</b>	<b>17</b>	<b>49</b>	<b>13</b>	<b>9</b>	<b>36</b>	<b>11</b>	<b>22</b>	<b>1</b>	<b>37</b>	<b>87</b>	<b>12</b>	

## TUBERCULOSIS.

Age Periods.	New Cases.				DEATHS <small>The number of deaths classified should agree with the total supplied by the Registrar-General.</small>				
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.		
	M.	F.	M.	F.	M.	F.	M.	F.	
Years.									
0-1...	...	1	...	...	...	1	...	...	...
1-5...	...	...	...	...	...	...	...	...	...
5-10	...	...	...	2	...	...	1	...	...
10-15	...	...	...	...	...	...	...	...	...
15-20	...	1	...	...	1	2	1	...	...
20-25	...	2	2	2	1	...	1	...	...
25-35	...	4	...	...	...	...	...	...	...
35-45	...	3	...	...	1	...	...	...	...
45-55	...	1	...	...	...	...	...	...	...
55-65	...	2	1	...	...	2	1	...	...
65 and upwards	...	1	...	...	...	...	...	...	...
Totals ... ..	13	5	2	4	6	4	3	...	...
	18		6		10*		3*		

\* It will be noticed that the deaths from Pulmonary and Non-Pulmonary Tuberculosis as known to the Health Department at Darwen, differ from the Registrar General's information. The Registrar General's return shews one more Pulmonary and three more Non-Pulmonary than we have any account of in our books. As the total deaths from all causes in our books agrees with the total number of deaths sent us by the Registrar General, there must have been some readjustment and rearrangement of some four deaths by the Registrar General, regarding which we had no notice at the time of such alteration. In my opinion it would be to the interests of uniformity if these alterations were at the same time notified to the Local Authority.

Specify the ratio of non-notified tuberculosis deaths to total tuberculosis deaths?—Nil. (See foregoing note.)

Cases are fairly efficiently notified. No action has been taken.

There is no evidence of excessive incidence, or mortality from tuberculosis in any particular occupation in the district.

Twenty-five cases of Tuberculosis were sent to various sanatoria and hospitals for surgical cases. Ten of these were discharged and four died before the end of the year.

The Examination of Sputum on Discharge was positive in 7 cases, negative in 2, and in 1 case there was no examination result.

The Consumptive Patients from Darwen were sent to the following Institutions :—

6	Patients to	High Carley, Ulverston.
3	„	Bull Hill, Darwen.
3	„	Queen's Park, Blackburn.
2	„	Aitken, Holcombe.
2	„	Heath Charnock, near Chorley.
2	„	Luneside, Lancaster.
1	Patient to	Burnley, Burnley.
1	„	Elswick, near Kirkham.
1	„	Great Barrow, Cheshire.
1	„	Meathop, Grange.
1	„	Peel Hall, Little Hulton.
1	„	Royal Infirmary, Blackburn.
1	„	Rufford, near Ormskirk.

#### **PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.**

One case was sent to a sanatorium and the farmer warned that his son must not, upon his return, have any work in connectoin with milk or the dairy.

#### **PUBLIC HEALTH ACT, 1925. SECTION 62 AND 67.**

We have had no occasion to take action in respect of section No. 62.

Eight lectures were given on various dates when I spoke on questions relating to health and diseases, etc. No expenses were incurred.



## RETURN OF VACCINATION FOR DARWEN, 1926.

MONTHS.	Successful Vaccination.	Died Unvaccinated.	Insusceptible.	Ex-empted.	Post-poned.	Removed out of Town and Traced	Removed and Cannot Trace	Unaccounted for.	Successfully vaccinated each quarter.
January ...	18	3	0	40	0	0	0	0	
February ...	8	1	0	18	0	0	1	0	
March .....	14	2	0	24	1	0	0	0	40
April .....	18	2	0	27	1	1	0	0	
May .....	17	3	0	35	1	0	0	1	
June .....	13	4	0	28	1	0	0	0	48
July .....	18	3	0	31	0	0	0	1	
August .....	14	0	0	18	0	0	0	0	
September..	10	0	0	25	0	0	0	3	42
October ..	13	4	0	20	1	0	0	6	
November..	9	2	0	19	0	0	0	8	
December ..	6	4	0	21	0	0	0	12	28
	158	28	0	306	5	1	1	31	158

### VACCINATION.

Year	Births	Successfully Vaccinated	Rate per cent Vaccinated
1917	427	153	34.43
1918	353	116	32.86
1919	495	134	27.07
1920	845	195	23.07
1921	753	231	30.67
1922	674	169	24.92
1923	602	208	34.55
1924	636	178	27.98
1925	546	156	28.57
1926	540	158	29.25

## Maternity and Child Welfare.

Two Health Visitors have been appointed and we have established two Maternity and Child Welfare Centres. Two sessions are held weekly at the Bolton Road Centre, and one at the Greenfield Centre. Advice is given daily by the Health Visitors at Bolton Road Centre to any mothers between the hours of 9 to 10 a.m., and 4-30 to 5-30 p.m. The Medical Officer of Health attends one session each week for ante-natal work. Children up to 5 years are weighed and record cards are kept.

The following are particulars of the work of the Health Visitors—

First Visits .....	536
Second and Subsequent Visits .....	2954
Visits to Children over 1 year and under 5 years .....	3795
Visits to Expectant Mothers .....	304
Visits re Stillbirths .....	33
Visits to Babies suffering from Ophthalmia Neonatorum—First .....	3
Visits to Babies suffering from Ophthalmia Neonatorum—Second and Subsequent Visits .....	3
Visits to Babies suffering from Measles and other infectious diseases..	246
Other Special Visits .....	132
	<hr/>
	8006
	<hr/>

The following particulars were obtained on first visits—

Feeding—

Breast .....	368
Bottle .....	48
Breast and Bottle .....	119
Spoon fed .....	1
	<hr/>
	536
	<hr/>

Types of Bottles Used—

Bottles without Tubes (including medicine bottles, etc.) .....	157
Bottles with Glass Tubes .....	6
Bottles with Rubber Tubes .....	4
	<hr/>
	167
	<hr/>

Foods—

Cow's Milk (undiluted) .....	3
Cow's Milk and Water .....	109
Cow's Milk and Barley Water .....	29
Cow's Milk and Sago Water .....	1
Cow's Milk Citrated .....	1
Cow's Milk and Rice Water .....	1
Nestle's Milk .....	2
Dried Milk .....	15
Patent Foods .....	6
	<hr/>
	167
	<hr/>

## MATERNITY AND CHILD WELFARE CENTRES.

Bolton Road. Greenfield.

Number of children who have been weighed during the year .....	579	...	98
Total Number of Weighings .....	3781	...	1112
Babies specially examined by the Medical Officer .....	247	...	25
Babies referred to Family Doctor for Treatment .....	38	...	4
Babies recommended for Institution Treatment .....	7	...	1
Average Attendance of Expectant Mothers per Session	2	...	1
Average Attendance of Mothers per Session .....	43	...	19
Average Attendance of Children per Session .....	39	...	22

The following is a summary of cases which were examined by the Medical Officer of Health at the Maternity and Child Welfare Centre, and found to be suffering from some type of deformity requiring special treatment.

### ADMITTED TO BLACKBURN ROYAL INFIRMARY.

No.	Condition.	Result.
1	Phimosis.	Cured.

### ADMITTED TO PENDLEBURY CHILDREN'S HOSPITAL.

No.	Condition.	Result
1	Harelip.	Cured.

### ADMITTED TO QUEEN'S PARK HOSPITAL, BLACKBURN.

No.	Condition.	Result
1	Abscess of Head.	Still in Hospital.
1	Rickets.	Still in Hospital.
1	Hydrocephalus.	Still in Hospital.
1	Marasmus.	Died.
1	Bronchial Catarrh.	Died.

### REFERRED TO FAMILY DOCTOR.

No.	Condition.	Result.
1	Marasmus.	Improved.
1	Bronchial Catarrh.	Cured.
2	Cough.	Cured.
1	Abscess of Thigh.	Cured.
1	Teething.	Cured.
1	Umbilical Hernia.	Cured.
1	Tonsils and Adenoids.	Operation not required
1	Patent Urachus.	Operation—cured.
1	Convulsions.	Cured.
1	General Skin Rash.	Cured.
1	Ringworm.	Cured.
2	Bronchitis.	Cured.

**PARTICULARS OF INDIVIDUAL CASES SPECIALLY EXAMINED  
BY MEDICAL OFFICER OF HEALTH.**

Defect.	No.
Strabismus .....	1
Conjunctivitis .....	1
Nystagmus .....	2
Eye Discharge .....	1
Tonsils and Adenoids .....	1
Cough .....	2
Bronchitis .....	2
Bronchial Catarrh .....	1
Nasal Catarrh .....	1
Thrush .....	1
Snuffles .....	2
Throat Spasms .....	1
Otorrhœa .....	6
Impetigo .....	2
Xeroderma .....	2
Ringworm .....	1
Abscess of Head .....	1
Abscess of Thigh .....	1
Pityriasis Alba .....	1
Simple Rashes .....	21
Cut Mouth .....	2
Umbilical Discharge .....	4
Hernia .....	7
Patent Urachus .....	1
Birth Injuries .....	2
Tongue Tie .....	9
Phimosi s .....	10
Anæmia .....	1
Hydrocephalus .....	1
Injury to Knee .....	1
Epiphysitis .....	1
Separation of Epiphysis .....	1
Undescended Testicle .....	1
Hare Lip .....	1
Genu Valgum .....	2
Congenital Defects .....	2
Tubercular Glands .....	3
Mentally Defective .....	2
Constipation .....	6

Defect.	No.
Diarrhoea and Vomiting .....	10
Re. Feeding .....	13
Marasmus .....	5
Malnutrition .....	4
Rickets .....	4
Teething .....	2
Convulsions .....	2
Defective Teeth .....	1
Digestion .....	1
Thread Worms .....	1
Normal .....	11
	162

### NOTIFICATION OF BIRTHS ACTS.

Table showing the number of Births Notified during 1926.

	Male.	Female.	Total.	Stillborn.
JANUARY .....	21	29	50	3
FEBRUARY .....	15	13	28	1
MARCH .....	31	19	50	2
APRIL .....	26	29	55	2
MAY .....	30	21	51	3
JUNE .....	26	33	59	7
JULY .....	17	19	36	1
AUGUST .....	24	17	41	1
SEPTEMBER .....	24	21	45	4
OCTOBER .....	25	19	44	4
NOVEMBER .....	14	25	39	4
DECEMBER .....	20	24	44	3
	273	269	542	35
Births Notified by Midwives .....				512
Births Notified by Medical Men .....				17
Births Notified by Parents .....				3
Births Notified by Midwives and Medical Men .....				10
Births Notified by Parents and Medical Men .....				0
Births Notified by Parents and Midwives .....				0
Births Notified by Others .....				0
Total .....				542

**Table showing Births Notified, Visits, Etc.**

Year.	Births Notified.				Births not Notified.		Births Visited.		Births Revisited
	Males.	Females	Total.	Still-born.	No.	Prose-cutions.	No.	% of Total	
1917	224	204	428	20	8	0	397	92.8	1370
1918	180	168	348	19	11	0	320	91.9	1477
1919	266	273	539	34	3	0	442	82.0	1294
1920	448	432	880	58	6	0	709	80.5	1054
1921	395	380	775	39	11	0	431	55.6	1111
1922	335	337	672	30	10	0	472	70.2	1157
1923	303	326	629	33	5	0	596	100.0	2545
1924	331	310	641	26	3	0	593	92.5	3989
1925	274	272	546	16	9	0	489	89.5	2769
1926	273	269	542	35	4	0	532	98.1	2954

**DEATHS UNDER ONE YEAR OF AGE.**

Year	Premature Birth	Convulsions	Bronchitis & Pneumonia	Diarrhoeal Diseases	Whooping Cough	Measles	Inanition	Congenital Defects	Other Causes	Total	Rate per 1000 Births
1917	9	1	14	5	1	...	4	..	16	40	89
1918	3	..	4	2	..	3	1	1	12	26	74
1919	15	2	11	1	1	..	8	8	11	57	115
1920	18	1	12	1	..	..	15	3	29	79	93
1921	12	1	11	..	1	..	3	7	18	53	70
1922	8	3	9	..	2	4	4	6	20	56	83
1923	12	3	6	..	..	1	2	9	14	47	78
1924	15	..	8	4	..	..	6	3	7	43	67
1925	13	2	12	..	1	7	2	9	19	65	119
1926	6	2	6	2	2	..	3	6	14	41	75

**DEATHS UNDER ONE YEAR OF AGE IN MONTHS.**

	Under 1 Month	Under 2 M'ths	Under 3 M'ths.	Under 4 M'ths.	Under 5 M'ths.	Under 6 M'ths.	Under 7 M'ths.	Under 8 M'ths.	Under 9 M'ths.	Under 10 M'ths.	Under 11 M'ths.	Under 12 M'ths.	Total
Deaths .....	21	4	4	1	3	2	1	3	...	1	...	1	41
Percentage of Total .	51.1	9.7	9.7	2.4	7.3	4.9	2.4	7.3	...	2.4	...	2.4	...

**Table showing Infantile Mortality in the Various Wards.**

Year.	C.	W.C.	N.E.	N.W.	S.E.	S.W.	Boro.'
1917	164	77	76	79	59	104	89
1918	38	57	95	63	133	34	74
1919	154	42	108	185	73	131	115
1920	84	111	114	77	98	68	93
1921	63	47	97	87	50	53	70
1922	131	64	79	64	75	74	83
1923	119	70	81	59	63	64	78
1924	97	114	82	40	62	52	67
1925	106	162	74	79	151	208	119
Average for 9 yrs.	106	82	89	81	84	87	87
1926	125	34	80	66	83	46	75

We have no local Maternity Home or Hospital for the reception of expectant and nursing mothers and young children.

The incidence of maternal mortality is 6 deaths in 540 births. The Medical Officer of Health and the Health Visitors make detailed inquiries in regard to maternal deaths, stillbirths and infant deaths. All the information is filed. Two of the maternal deaths occurred at home, two in Blackburn Royal Infirmary, and two in Queen's Park Hospital, Blackburn. The following are the causes of death:—Case 1, Puerperal Fever. Case 2, Dystocia. Case 3, Accident of Pregnancy. Case 4, Pulmonary Embolism. Case 5, Erysipelas. Case 6, Pulmonary Embolism.

During the year 218 expectant mothers have been advised, as required, at the Centres or at their homes.

The Poor Law Authorities deal with cases of unmarried mothers, illegitimate children, and children temporarily or permanently deprived of a home with their own parents. The cases are admitted to Queen's Park Hospital.

We have made arrangements for a supply of milk in necessitous cases. The total of free milk grants during 1926 was valued at £66 13s. 7½d. The applicants for this grant fill up a form; inquiries are made regarding the social conditions and income of applicants and a graded scale is worked to before any grant of free milk is made.

If any children under 5 years of age require orthopædic treatment they are sent to Queen's Park Hospital where there is a special open-air block for that purpose. One child was sent by us for admission and treatment during 1926.

We have a Voluntary Care Committee, consisting of about 40 ladies resident in the town who interest themselves in the work of the Maternity and Child Welfare Centre. Three of this number are members of the Maternity and Child Welfare Sub-Committee. In this connection there is a Mothers' Club which meets one evening every fortnight at the Maternity Centre. A course of lectures and practical demonstrations is given. There is also a Savings Scheme in connection with the Mothers' Club.

All children have record cards and when each child attains the age of 5 years the card is transferred to the School Medical Department.

Year	Puerperal Fever Notific.	Total Births	Deaths		Still Births	Infantile Mortality Rate
			Puerperal Sepsis	Other Accidents or Diseases of Pregnancy		
1920	3	845	4	2	58	93
1921	1	753	0	3	39	70
1922	1	674	0	3	30	83
1923	4	602	2	1	33	78
1924	5	636	4	3	26	67
1925	4	546	0	6	16	119
1926	4	540	2	4	35	75

### OPHTHALMIA NEONATORUM.

CASES.			Vision Unimpaired.	Vision Impaired.	Total Blindness.	Deaths.
Number Notified	Treated.					
	At Home.	In Hospital.				
3	3	0	3	0	0	0

There have been no notable sanitary improvements during 1926.

## FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

### I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or  
Inspectors of Nuisances.

Premises.	Inspections.	Number of Written Notices.	Prose- cutions.
Factories (including Factory Laundries) .....	121	12	—
Workshops (including Workshop Laundries)...	510	16	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report) .....	78	1	—
Total .....	709	29	—

### II.—DEFECTS FOUND.

Nuisances under the Public Health Acts—

	Found.	Remedied.	Referred to H.M. Inspector.	No. of Prose- cutions.
Want of cleanliness .....	2	2	—	—
Want of ventilation .....	—	—	—	—
Overcrowding .....	—	—	—	—
Want of drainage of floors .....	14	14	—	—
Other nuisances .....	16	15	—	—

Sanitary accommodation—

Insufficient .....	1	1	—	—
Unsuitable or defective .....	8	8	—	—
Not separate for sexes .....	—	—	—	—

	Found.	Remedied.	Referred to H.M. Inspector.	No. of Prose- cutions.
Offences under the Factory and Workshop Acts—				
Illegal occupation of underground bakehouses (s. 101) .....	2	—	2	—
Other offences (excluding offences re- lating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers Order, 1921) .....	10	10	—	—
Total .....	53	50	2	—

### III.—HOME WORK.

Nature of Work.	Outworkers' Lists, Section 107 Lists received from Employers. Sending twice in the year Outworkers.		
	Lists.	Contractors.	Workmen
Wearing Apparel—Making, etc. ....	4	3	6

### IV.—REGISTERED WORKSHOPS.

	Number.
Textile Factories .....	65
Non-Textile Factories .....	85
Factory Workshops .....	50
Workshops .....	207
Workplaces .....	97
Total Workshops on Register .....	504

### V.—OTHER MATTERS.

	Number.
Matters notified to H.M. Inspector of Factories—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901) .....	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5, 1901)—	
Notified by H.M. Inspector .....	3
Reports (of action taken) sent to H.M. Inspector .....	3
Other .....	2
Underground Bakehouses (s. 101) in use at the end of the year ...	4

**PARTICULARS OF DEATHS IN COTTON TRADE  
FROM VARIOUS DISEASES.**

Borough Population.	Trade.	No. of Employees (approx.)	Year.	Deaths.	15 to	25 to	35 to	45 to	65 &	To- tal	Death Rate	Boro' Death Rate	Boro'	* Rate up to 15 yrs.						
					25 M	35 F	45 M	65 F	up M	F					M	F				
38,720	Weavers .....	9100	1921	Respiratory	2	1	1	2	2	1	3	1	2	9	6	1.64	11.57	2.42	3.28	
				Others .....	2	3	2	2	1	3	9	3	8	3	22	14	3.95	...	9.15	9.14
	Winders and Warpers...	1860	1921	Respiratory	1	...	...	...	...	...	...	...	...	...	1	...	0.53	...	...	...
	Cardroom Hands.....	400	1921	Others .....	1	...	3	...	1	...	6	...	...	...	11	...	5.91	...	...	...
	Spinners .....	300	1921	Respiratory	...	...	...	...	...	...	1	...	...	...	1	...	2.50	...	...	...
				Others .....	...	...	...	2	...	...	3	...	...	5	...	...	0.00	...	...	...
38,800	Weavers .....	9000	1922	Respiratory	1	1	2	2	1	4	5	1	4	1	13	9	2.44	14.45	4.09	4.71
				Others .....	2	3	1	1	3	6	8	10	2	19	17	4.00	...	10.36	9.85	
	Winders and Warpers...	1800	1922	Respiratory	...	...	...	...	...	2	...	...	...	...	2	...	1.11	...	...	...
	Cardroom Hands.....	400	1922	Others .....	1	...	2	...	...	2	...	3	...	...	8	...	4.44	...	...	...
	Spinners .....	300	1922	Respiratory	...	...	...	...	...	2	...	...	...	...	2	...	5.00	...	...	...
				Others .....	1	...	...	...	1	...	1	...	...	...	2	...	5.00	...	...	...
38,980	Weavers .....	9000	1923	Respiratory	...	5	1	1	1	...	3	1	5	1	10	8	2.00	13.54	3.49	2.57
				Others .....	3	1	3	...	4	10	7	16	5	27	22	5.44	...	10.05	10.14	
	Winders and Warpers...	1720	1923	Respiratory	2	...	1	...	...	1	...	2	...	...	6	...	3.48	...	...	...
	Cardroom Hands.....	400	1923	Others .....	...	...	1	...	...	2	...	...	...	...	3	...	1.74	...	...	...
	Spinners .....	300	1923	Respiratory	...	...	...	...	...	1	...	...	...	...	1	...	0.00	...	...	...
				Others .....	...	...	...	...	...	2	...	2	...	4	...	...	0.00	...	...	...
39,060	Weavers .....	9000	1924	Respiratory	1	7	3	5	2	2	6	3	3	2	15	19	3.77	14.90	3.52	2.75
				Others .....	3	4	2	7	2	6	7	5	11	4	25	26	5.66	...	11.38	6.37
	Winders and Warpers...	1720	1924	Respiratory	2	...	...	1	...	2	...	...	...	...	5	...	2.90	...	...	...
	Cardroom Hands.....	400	1924	Others .....	1	...	1	...	...	3	...	3	...	...	8	...	4.65	...	...	...
	Spinners .....	300	1924	Respiratory	...	...	...	...	...	2	...	...	...	...	2	...	5.00	...	...	...
				Others .....	...	...	1	...	...	1	...	1	...	...	1	...	2.50	...	...	...
38,850	Weavers.....	9000	1925	Respiratory	...	5	2	3	4	2	2	1	3	3	11	14	2.77	14.13	4.01	4.75
				Others .....	...	3	...	4	2	3	7	8	8	2	17	20	4.11	...	10.12	9.25
	Winders and Warpers...	1720	1925	Respiratory	...	...	...	1	...	1	...	...	...	...	1	...	0.58	...	...	...
	Cardroom Hands.....	400	1925	Others .....	2	...	1	...	...	1	...	2	...	...	6	...	3.48	...	...	...
	Spinners .....	200	1925	Respiratory	...	...	...	...	...	1	...	...	...	...	1	...	2.50	...	...	...
				Others .....	...	...	...	1	...	1	...	1	...	...	1	...	2.50	...	...	...
38,860	Weavers .....	9000	1926	Respiratory	...	...	1	...	1	1	...	2	...	4	6	1.11	11.14	2.13	2.00	
				Others .....	3	2	...	1	...	6	11	8	10	2	25	19	4.88	...	9.01	4.87
	Winders and Warpers...	1720	1926	Respiratory	1	...	...	...	1	...	1	...	...	...	3	...	1.74	...	...	...
	Cardroom Hands.....	400	1926	Others .....	...	...	...	1	...	5	...	2	...	...	8	...	4.65	...	...	...
	Spinners .....	200	1926	Respiratory	...	...	...	...	...	...	...	...	...	...	...	...	0.00	...	...	...
				Others .....	...	...	...	...	1	...	1	...	...	...	2	...	2.50	...	...	...
			1926	Respiratory	...	...	...	1	...	1	...	...	...	1	...	5.00	...	...	...	
			Others .....	...	...	...	...	...	3	...	3	...	...	...	...	15.00	...	...	...	

\* Child Population (estimated) 8,000. (Birth to age 15 years.)

## Meteorology.

The Meteorological Observatory is at Bold Venture Park in Lat.  $53^{\circ} 41' 25''$  N., and Lon.  $2^{\circ} 28' 32''$  W., and is at an altitude of 728 feet above mean sea level.

Observations are taken twice daily at 9 a.m. and 9 p.m.

This station is connected with the Meteorological Office, and is called a Normal Climatological Station. A report, giving all details of readings, is sent each month to the Meteorological Office, London.

The total rainfall for the year is 1345.3 millimetres, or 52.96 inches being recorded on 234 days ; the average for the last twenty years being 55.2 inches. The greatest monthly fall was in November 224.5 millimetres ; and the lowest in April 50.8 millimetres. The greatest daily fall was 48.1 millimetres, on November 1st.

The total sunshine registered on 281 days during the year was 1085.0 hours, the average for twenty years is 1140.1 hours. June registered the highest monthly total, 168.8 hours ; and January the lowest, 18.2 hours. The highest daily reading was 13.4 hours, on July 2nd.

The mean minimum temperature in shade was  $41.7^{\circ}$ , the average for the last twenty years is  $40.5^{\circ}$ . The lowest monthly mean was in December,  $34.7^{\circ}$ , and the lowest reading for the year  $23.4^{\circ}$ , on December 15th.

The maximum wind velocity was on December 31st, when a West South-West wind was blowing at the rate of 54 miles per hour.

No observations of calm were recorded, 19 observations of snow, 12 observations of hail, 5 observations of thunder, thunderstorm on 11 days, 16 observations of hoar frost, 83 observations of mist, 70 observations of ground frost, 11 observations of snow lying, 34 observations of fog, 1 observation of gale, 87 observations of dew, and 2 observations of lightning.





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REPORT  
OF THE  
**Sanitary Inspectors**  
FOR THE  
**Year ending 31st December, 1926.**

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PUBLIC HEALTH OFFICE,

DARWEN,

APRIL, 1927.

**To the Chairman and Members of the Health Committee.**

GENTLEMEN,

I have the honour to submit my 36th Annual Report as Sanitary Inspector for the year ending December 31st, 1926.

The district for inspection purposes covered by the report are the Central, South-East and South-West Wards, and the following table gives the area, number of houses and estimated population.

	Area in Acres.	Houses.	Estimated Population.
CENTRAL WARD .....	110 .....	1666 .....	6336
SOUTH-EAST WARD .....	1900 .....	1804 .....	6875
SOUTH-WEST WARD .....	1980 .....	1719 .....	6145

**NUISANCES.**

The number of complaints of nuisances, etc., received during 1926 was 129, against 144 in 1925.

In all cases of complaint of nuisances the premises are visited as early as possible and notices served on the person responsible. The nuisances complained about were chiefly offensive smells, choked waste water closets, etc.

### SUMMARY OF INSPECTION.

Nature of Inspections.	Number of Inspections.	Number of Notices Served.		Result of Service of Notices.				
		Legal.	Preliminary.	Nuisances abated.	Remain- ing in hand.	Prosecutions.		
						Instituted.	Pending	
Dwelling Houses under Housing Acts .....	1416	...	82	493	502	...	...	...
Factories and Workshops .....	209	..	2	13	14	...	...	...
Bakehouses .....	110	...	...	3	3	...	...	...
Dairies and Cowsheds .....	64	...	4	14	14	...	...	...
Smoke Observations .....	19	...	...	...	...	...	...	...
Refuse Tips .....	79	...	...	...	...	...	...	...
Elementary Schools .....	25	...	...	6	17	...	...	...
<b>SUMMARY OF NUISANCES DEALT WITH—</b>		Un- abated Dec., 1925.	Dis- covered 1926					
Defective Drains .....	6	66	9	60	66	6	...	...
Uneven Slop Gullies .....	4	28	...	27	29	3	...	...
Defective W.C.'s .....	4	35	2	32	37	2	...	...
Defective Downspouts and Easing Troughs .. . . .	26	155	16	154	168	13	...	...
Insanitary Yards .....	...	1	1	1	...	1	...	...
Dirty Houses .....	9	30	12	24	33	6	...	...
Dirty Closets .....	1	8	2	7	8	1	...	...
Accumulations of Refuse .....	4	85	18	76	81	8	...	...
Nuisances from Animals .....	...	2	...	2	2	...	...	...
Ashes Tubs without Covers .....	5	16	3	14	19	2	...	...
Broken Sloppipes .. . . .	7	26	6	19	29	4	...	...
Choked Waste Water Closets .....	...	28	6	26	27	1	...	...
Broken Ashtubs .....	...	2	...	2	2	...	...	...
Dangerous Closets, &c. ....	...	4	...	4	3	1	...	...
Insanitary Urinals .....	...	2	...	2	2	...	...	...
Insufficient Closet Accommt'n ..	...	2	...	2	2	...	...	...
Broken Yard Doors, &c. ....	3	8	3	6	10	1	...	...
Insufficient Ventilation .....	...	4	3	4	4	...	...	...
Defective Roof .. . . .	2	6	1	5	6	2	...	...
Defective Windows .....	1	4	...	4	5	...	...	...
Insanitary Manure Pits .....	1	2	...	2	3	...	...	...
„ Pail Closets .....	20	...	...	16	20	...	...	...
„ Bakehouses .....	...	1	...	1	1	...	...	...
Miscellaneous .....	2	3	...	3	4	1	...	...

Several statutory notices were served to abolish pail closets and convert to the water carriage system and the number of pails converted and waste water closets (converted voluntary) was as follows—

	Central Ward.	South-East Ward.	South West Ward.	Total.
Waste Water Closets .....	3	2	3	8
Pail Closets .....	0	4	16	20

57 new Water Closets were fixed. In South-East Ward 54 and South-West Ward 3.

45 new Baths were fixed. In Central Ward 5, South-East 33 and South-West 7.

The number of Pail Closets now in use in my district is as follows—

There are no Pail Closets in Central Ward.

	South-East.	South-West.	Total.
Farms .....	31	25	56
Cottages .....	69	17	86
Works .....	15	—	15
Whitehall Lake .....	—	2	2
Whitehall Park .....	—	4	4
			163

Fifty-three agreement forms passed through the Health Department for work to be carried out by the Highways Department :—

	No.
To convert pail closets .....	3
To open choked waste water closets .....	26
To repair defective drains .....	14
To repair downspouts .....	2
To open choked W.C.'s .....	6
To construct new drain .....	1
To convert waste water closet .....	1
	53

### INFECTIOUS DISEASES.

Eighty-six cases of Infectious Diseases were received during 1926, against 92 in 1925, 72 in 1924, and 219 in 1923.

Immediately on receipt of a notification the premises were visited and particulars relating to patient and premises were obtained. Verbal and printed instructions are given to those in charge of the patient to prevent the spread of the disease.

Where children are attending a school from an infected house notices are sent to the Education Office, the Headmaster of the School and the Public Library.

In case of removal to hospital or on the recovery of the case, the rooms are fumigated and bedding removed for disinfection.

Owing to the prevalence of Smallpox in neighbouring towns in June, 1926, a number of contact cases were visited within the district but happily no cases occurred in Darwen.

The number of cases removed to Hospital during 1926 was as follows—

	Central.	South-East.	South-West.	Total.
Scarlet Fever .....	10	10	5	25
Erysipelas .....	—	—	1	1

The following tables gives a list of notifications in the three Wards for 1925-1926—

WARD	Scarlet Fever		Typhoid Fever		Diphtheria		Pneumonia		Puerperal Fever		Puerperal Pyrexia		Encephalitis Lethargica		Tuberculosis		Erysipelas		Ophthalmia Neonatorum		Total	
	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926	1925	1926
Central .....	3	10	0	0	1	1	16	7	1	1	0	1	0	3	11	4	0	0	2	0	34	27
South-East...	5	17	0	0	0	2	11	2	0	0	0	0	0	0	2	4	2	5	0	0	20	30
South-West..	4	14	2	0	0	0	19	5	2	0	0	0	1	0	9	6	2	3	0	1	38	29
	12	41	2	0	1	3	46	14	3	1	0	1	1	3	22	14	4	8	2	1	92	86

### BLACK SMOKE.

Owing to the Coal Strike which occurred in May, 1926, only 21 smoke observations were taken and these were all taken previous to the strike.

The following is a summary of observations—

Chimneys observed, 19. No. of observations, 21.

	Black.	Moderate.
Total amount of smoke in minutes .....	75	402.30
Average amount in minutes .....	3½	19

The average in the previous years was—

	1920	1921	1922	1923	1924	1925
No. of Observations .....	38	28	42	42	45	44
Average amount of Black Smoke in Minutes .....	2	2¾	3½	3	3	3

The time limit in force in the Borough is—

- 1, 2 or 3 Boilers ..... 5 minutes per hour.  
 Over 4 Boilers ..... 7 minutes per hour.

The following is a list of Boiler Stoking Apparatus, etc., in connection with works in the district—

Name of Works	Trade	Boilers	Fires	Size of Boiler	Stoking Apparatus	Economiser
Albert Mill .....	Cotton Spinning	2	4	30ft. x 8ft.	Hand	Greens
Bowling Green .....	Weaving	3	6	30ft. x 8ft.	Proctors	Greens
Britannia .....	Weaving	2	4	30ft. x 8ft.	Proctors	Greens
Culvert .....	Dyeing	1	2	24ft. x 7ft. 6in.	Hand	none
Cotton Hall (Whipps) .....	Weaving	1	2	28ft. x 8ft. 6in.	Benniss's	Greens
Darwen Spinning .....	Spinning	2	4	30ft. x 8ft.	Hand	Greens
Darwen Paper .....	Paper	10	18	32ft. x 8ft. 6in.	Hodkinson	Greens
Ellenshaw .....	Weaving	1	2	30ft. x 8ft.	Hand	Greens
Ellison Fold .....	Laundry	1	1	18ft. x 6ft. 6in.	Hand	none
Greenfield, Old .....	Weaving	1	2	30ft. x 8ft. 6in.	Proctors	Greens
Greenfield, New .....	Weaving	1	2	30ft. x 8ft. 6in.	Proctors	Greens
Hampden .....	Weaving	1	2	30ft. x 8ft. 4in.	Proctors	Greens
Highfield .....	Weaving	1	2	28ft. x 7ft.	Hand	none
Hanover .....	Weaving	1	2	28ft. x 7ft. 6in.	Hand	Greens
Holme .....	Weaving	1	2	30ft. x 8ft. 6in.	Proctors	Greens
Hope .....	Weaving	2	4	30ft. x 8ft.	Proctors	Greens
India Mill .....	Spinning	4	8	30ft. x 9ft.	Hand	Greens
Marsh House .....	Weaving	1	2	30ft. x 8ft.	Hand	Greens
No. 1 Spinning .....	Spinning	2	4	30ft. x 7ft. 6in.	Whittakers	Greens
New Mill .....	Weaving	2	4	{ 30ft. x 8ft. 3in. 30ft. x 7ft. 6in.	Proctors	..
New Bridge .....	Weaving	1	2	30ft. x 7ft.	Whittakers	Greens
Newton Street .....	Laundry	1	1	7ft. 6in. x 3ft. 6in.	Hand	none
Perseverance .....	Weaving	1	2	30ft. x 8ft.	Hand	Greens
Primrose .....	Weaving	1	2	30ft. x 8ft.	Proctors	Greens
Progress .....	Weaving	1	2	30ft. x 7ft.	Proctors	Greens
Premier .....	Weaving	1	2	30ft. x 8ft. 6in.	Proctors	Greens
Pipe Works, Hoddles'n	Sanitary Pipes	3	6	{ 30ft. x 8ft. 30ft. x 7ft. 6in. 19ft. x 6ft.	Hand	Greens
Rose Mill .....	Weaving	1	2	30ft. x 8ft.	Proctors	Greens
Rosehill .....	Soap	1	1	14ft. x 6ft.	Hand	none
Springfield (Sough) .....	Weaving	1	2	28ft. x 8ft. 6in.	Hand	Greens
Spring Vale .....	Paper	5	10	30ft. x 8ft. 6in.	Vicars	Greens
Sudell Side .....	Weaving	1	2	28ft. x 8ft.	Proctors	Greens
Starkie Street .....		1	2	28ft. x 8ft.	Proctors	Greens
South Street .....	Weaving	1	2	33ft. x 9ft. 6in.	Hand	Greens
Sunnybank .....	Laundry	1	1	16ft. x 5ft. 6in.	Hand	..
South End .....	Weaving	1	2	32ft. x 8ft. 6in.	Proctors	Greens
St. Paul's, Hoddlesden .....	Weaving	1	2	30ft. x 8ft.	Proctors	Greens
Tackfield .....	Weaving	1	2	30ft. x 8ft.	Hand	none
Two Gates .....	Weaving	1	2	27ft. x 7ft. 6in.	Proctors	Greens
Vale Brook .....	Weaving	1	2	30ft. x 7ft.	Proctors	Greens
Vale Rock .....	Weaving	1	2	25ft. x 8ft.	Hand	Greens
Waterfield .....	Weaving	1	2	30ft. x 8ft.	Benniss's	Greens
Whitehall .....	Weaving	1	2	30ft. x 8ft.	Proctors	Greens

## HOUSING STATISTICS.

### INSPECTION, ETC.

#### Unfit dwellinghouses—

(1) Total number of houses inspected for housing defects (under Public Health or Housing Acts) .....	1416
(2) No. of dwellinghouses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910, or the Housing Consolidated Regulations, 1925) .....	29
(3) No. of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .....	0
(4) No. of dwellinghouses (exclusive of those referred to under No. 3) found not to be in all respects reasonably fit for human habitation .....	0

#### REMEDY OF DEFECTS WITHOUT THE SERVICE OF NOTICE.

No. of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers .....	0
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#### ACTION UNDER STATUTORY POWERS.

##### A.—Proceedings under Section 3 of the Housing Acts, 1925—

1. No. of dwellinghouses in respect of which notices were served requiring repairs .....	0
2. No. of dwellinghouses which were rendered fit after the service of formal notice .....	0
(a) By Owners .....	0
(b) By Local Authority in default of owners .....	0
3. No. of dwellinghouses in respect of which closing orders became operative in pursuance of owners declaration to close same..	0

##### B.—Proceedings under the Public Health Acts—

1. No. of dwellinghouses in respect of which notices were served requiring defects to be remedied .....	9
2. No. of dwellinghouses in which defects were remedied after service of formal notice .....	9
(a) By Owners .....	9
(b) By Local Authority in default of owners .....	0

C.—Proceedings under Section 11, 14-15 of the Housing Act, 1925—

1. No. of representations made with a view to the making of closing orders .....	0
2. No. of dwellinghouses in respect of which closing orders were made .....	0
3. No. of dwellinghouses in respect of which closing orders were determined, the dwellinghouses having been rendered fit ...	0
4. No. of dwellinghouses in respect of which demolition orders were made .....	0
5. No. of dwellinghouses demolished in pursuance of demolition orders .....	0

D.—No. of dwellinghouses demolished voluntarily by owners or converted to workshops .....	2
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\* Refers only to action in reference to housing defects. Notices with regard to drainage and other defects should be included under Sanitary Inspections.

### FACTORIES AND WORKSHOPS.

Under the Factories and Workshops Act, 1901 to 1907, it is the duty of the Local Sanitary Authority to enforce the Sanitary provisions relating to Workshops.

The following is a copy of the table required to be furnished to the Home Office—

#### FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

##### I.—INSPECTION.

Premises.	Inspections.	No. of Written Notices.	No. of Prosecutions.
Factories (including Factory Laundries) .....	15 ...	3 ...	—
Workshops (including Workshop Laundries) .....	300 ...	11 ...	—
Workplaces (other than Outworkers premises included in Part 3) .....	4 ...	— ...	—

## II.—DEFECTS FOUND.

### \* NUISANCES UNDER PUBLIC HEALTH ACTS.

	Found.	Remedied.	Referred to		
			H M. Inspector	Prosec-	utions.
Want of Cleanliness .....	1	1	—	—	—
Want of Ventilation .....	—	—	—	—	—
Overcrowding .....	—	—	—	—	—
Want of drainage of floors .....	1	1	—	—	—
Other nuisances .....	11	10	—	—	—
Sanitary Accommodation—					
Insufficient .....	—	—	—	—	—
Unsuitable or defective .....	3	3	—	—	—
Not separate for sexes .....	—	—	—	—	—
Offences under F. and W. Acts—					
Illegal occupation of underground bakehouses .....	1	1	—	—	—
Breach of special sanitary requirements for bakehouses (s.s 97 to 100)	1	—	—	—	—
Other offences (excluding offences relat- ing to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health Factories and Work- shops Transfer of Powers Order, 1921) .....	—	—	—	—	—

\* Including those specified in Sections 2, 3, 7 and 8 of the Factory and Work-  
shops Act, 1901, as remediable under the Public Health Acts.

## III.—HOME WORK.

### OUTWORKERS LISTS. SECTION 107.

Lists received from Employers sending twice in the year.

Nature of Work.	Lists.	Outworkers.	
		Contractors.	Workmen.
Dressmaking .....	2	1	2
Tailoring .....	2	1	1

#### IV.—REGISTERED WORKSHOPS.

	No.
Textile Factories .....	32
Non-Textile Factories .....	12
Factory Workshops .....	4
Workshops .....	98
Workplaces .....	26

#### V.—OTHER MATTERS.

##### MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES.

Failure to affix Abstract of the Factory and Workshop Act Sec. 133-1901 .....	0
Action taken in matters referred by the H.M. Inspector as remediable under the Public Health Acts but not under the Factory and Workshops Acts (Sec. 5-1901) .....	1
Notified by H.M. Inspector .....	1
Reports of action taken sent to H.M. Inspector .....	1
Other matters .....	—
Underground bakehouses (Sec. 101) in use at end of year .....	2

#### MILK AND DAIRIES ORDER, 1926.

The number of Inspections made at Farms, Dairies and Milkshops during 1926 was 64.

During my periodical inspection of the farms I have paid special attention to the water supply, the cleansing of utensils, milking cans, and also the cattle.

Five new certificates were granted to purveyors of milk.

There are 54 Farms in South-East and South-West Wards used for the housing of cattle, and four are used for the rearing of young stock, pigs and poultry.

There are three milkshops in the district.

A quantity of milk is brought into the Borough through the Darwen Station and periodical visits are made here for inspection of utensils, etc.

The following is a list of nuisances abated at Farms and Dairies—

Repairs to Windows in Dairy .....	1	Repairs to Shippon Roof .....	1
Additional Light in Shippon .....	1	Limewash and Cleanse .....	3
Repairs to Downspouts .....	4	Repairs to Drains .....	3
Repairs to Sloppipe .....	1	Repairs to Roof of House .....	1
Improved Ventilation .....	1		

In May, 1926, the Medical Officer and myself obtained a sample of milk from a cow suspected of suffering from Tuberculosis. The sample was sent for analysis with the result that Tubercle bacilla was not found after being tested microscopically and by inoculation.

#### **DISEASES OF ANIMALS ACT. TUBERCULOSIS ORDER, 1925.**

The Tuberculosis Order came into force September, 1925. Under the Order compensation is allowed to any cowkeeper who has a cow on his premises certified by the Veterinary Inspector to be showing signs of Tuberculosis.

Five cases occurred within the district.

After slaughter the whole of the beasts were found to be suffering from Tuberculosis.

#### **INSPECTION OF FOOD.**

During the year a great advance has been made in the safeguarding of food for human consumption.

The Fish and Fruit Market and Wholesale Markets are continually under observation and periodical inspections are made to premises where all kinds of meat and foods are prepared for sale for human consumption. MEAT especially has received attention under the new Public Health Meat Regulations, 1924, which came into operation on April 1st, 1925.

Much progress has been made in the protection of meat and bacon in shops from contamination by dust, flies, etc. The co-operation and assistance of meat traders has enabled the regulations (with only one or two exceptions), to be carried out effectively in a comparative short space of time.

The objectionable habit of handling meat by consumers before sale has almost been eliminated on the Public Market and protection of a similar character should be extended to other articles of food such as fish, fruit and bread.

A large quantity of meat is brought into the town and delivered direct to the retailers, and these premises are regularly inspected.

There are 60 butchers' shops in the Borough—44 shops and four stalls being within my district.

The undermentioned food has been condemned—

70 lb. Skate.

60 Baskets Strawberries. 240 lbs.

4 Boxes Oranges containing 2,016 oranges (approx.).

10 Boxes Canadian Pears. 400 lbs.

### **SHOP HOURS' ACT.**

A number of inspections were made under the above Acts in various districts of the Borough and the Market Ground.

In accordance with the provisions of the Shops Act a register of shops is kept.

In April, 1926, an application was made by the Boot, Shoe and Clog Dealers asking for the Local Authority to amend the Closing Order of July, 1913. The request was signed by 50 Boot, Shoe and Clog Dealers and was for a reduction of one hour only on a Saturday night. I visited 74 shops in the Borough and the information obtained shewed that in nearly all the cases the shops were already closing voluntarily before 8 p.m. No order was made.

With regard to the Half-holiday Order, the majority of the shops are closed at 1 p.m. on Tuesday.

### **ELEMENTARY SCHOOLS.**

Inspections of Day Schools were made during the year and were generally found to be in a sanitary conditions. A few minor defects of W.C.'s, etc., were found and the particulars sent to the Secretary of Education.

The following nuisances were abated—

Defective Downspouts .....	4
Closets requiring Limewashing .....	6
Defective Drains .....	2
Defective Urinals .....	1
Accumulations of Refuse .....	4

### **FOOD AND DRUGS ACTS.**

Under the above Acts six samples of milk were obtained and submitted to the County Analyst for analysis. The whole of the samples were found to be genuine.

### **PUBLIC BUILDINGS, CINEMAS, ETC.**

The several public buildings, cinemas, etc., are periodically inspected and several sanitary defects have been carried out.

Special reports on Dairies, Cowsheds, etc., Black Smoke, Schools, and matters requiring attention are submitted to the Health Committee at every monthly meeting together with recommendations for the serving of Statutory Notices under the various Public Health and other Acts.

I am, Gentlemen,

Your obedient Servant,

**WILLIAM E. MARSDEN, C.R.S.I., M.I.S.A., Etc.**

PUBLIC HEALTH OFFICE, DARWEN.

31st MARCH, 1927.

**NORTHERN DISTRICT.**

**To the Chairman and Members of the Health Committee.**

GENTLEMEN,

I have pleasure in presenting a brief summary of work done during the year 1926. The District is comprised of North-East, North-West and West-Central Wards. During the year 25 new houses were erected by private enterprise, and 10 by the Darwen Corporation. These were distributed as follows, viz., West-Central Ward 4, North-East Ward 26, North-West Ward 5. At the end of the year there were several houses in course of erection in Beech Avenue, Clement Street, Oldfield Avenue, and Earnsdale Road. In connection with the Market Street Improvement Scheme several properties were closed and demolished, these were numbered and situated as follows, viz., 19, 20, 21, 22, 23, 23a, Green Street ; 30, 31, Market Street, and the Angel Inn.

The following Table shows number of houses, etc.—

	Houses, 1926.		Estimated Population, 1926.
WEST-CENTRAL WARD .....	909	.....	3518
NORTH-EAST WARD .....	2350	.....	9128
NORTH-WEST WARD .....	1947	.....	7034
	—————		—————
	5206	.....	19680
	—————		—————

**BURY STREET UNHEALTHY AREA.**

Full particulars of this scheme were given in previous reports. At the time of writing arrangements were being made for the closing and demolition of houses Nos. 10 and 11, Wellington Fold ; 34, 36, 37, 38, Bury Street ; and Stable and Garage, etc.

## HOUSING.

### UNFIT DWELLINGHOUSES.

(1) Inspection.—Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts) .....	1886
(2) No. of dwellinghouses which were inspected and recorded under the Housing Consolidated Regulations, 1925 .....	97
(3) No. of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .....	10
(4) No. of dwellinghouses (exclusive of those referred to under (3) found not to be in all respects reasonably fit for human habitation	87

### REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

No. of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers .....	40
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### ACTION UNDER STATUTORY POWERS.

#### A.—PROCEEDINGS UNDER SECTION 3 OF THE HOUSING ACT, 1925.

(1) No. of dwellinghouses in respect of which notices were served requiring repairs .....	0
(2) No. of dwellinghouses which were rendered fit after service of formal notices :—	
(a) By Owners .....	0
(b) By Local Authority in default of owners .....	0
(3) No. of dwellinghouses in respect of which closing orders became operative in pursuance of declarations by owners of intention to close .....	0

#### B.—PROCEEDINGS UNDER PUBLIC HEALTH ACTS.

(1) No. of dwellinghouses in respect of which notices were served requiring defects to be remedied .....	51
(2) No. of dwellinghouses in which defects were remedied after service of formal notices :—	
(a) By Owners .....	51
(b) By Local Authority in default of owners .....	0

C.—PROCEEDINGS UNDER SECTIONS 11, 14 AND 15 OF  
THE HOUSING ACT, 1925.

(1)	No. of Representations made with a view to making Closing Orders	1
(2)	No. of dwellinghouses in respect of which Closing Orders were made .....	1
(3)	No. of dwellinghouses in respect of which Closing Orders were determined, the dwellinghouse having been rendered fit .....	1
(4)	No. of dwellinghouses in respect of which Demolition Orders were made .....	0
(5)	No. of dwellinghouses demolished in pursuance of Demolition Orders .....	0
D.—No. of houses demolished voluntarily by owners, or converted to workshops, etc. ....		3

**DIRTY HOUSES.**

In the monthly reports submitted to Committee, particulars were given of certain houses situated in various parts of the district which were found to be in a very dirty condition. Informal and Statutory Notices were served upon the occupiers, and the cleansing was ultimately done satisfactorily.

**GENERAL INSPECTION OF DISTRICT.**

In accordance with your instructions and the general order of the Ministry of Health, I have endeavoured by systematic inspection to keep myself informed in respect of any nuisance existing in the district as the following summary will show :—

Total number of nuisances discovered .....	619
Letters written respecting nuisances .....	86
Informal Notices served respecting nuisances .....	605
Statutory Notices served respecting nuisances .....	215
Number of Re-inspections .....	1616
Number of Nuisances abated (including outstanding nuisances from previous year) .....	634
Number of premises and houses inspected .....	1886
Number of inspections of refuse tips .....	75
Number of inspections of Schools, etc. ....	60
Complaints received and investigated .....	101

Number of drains, water closets, etc., tested .....	24
Number of smoke observations taken .....	29
Number of inspections and re-inspections of Factories and Workshops .....	380
Number of inspections of Lodging Houses .....	73
Number of inspections of Bakehouses .....	105
Number of inspections of Dairies and Cowsheds .....	60
Number of samples purchased (Sale of Food and Drugs Acts) .....	32
Number of informal samples obtained .....	6

Number and Nature of Inspections made.	Number Inspections.	Notices Served.		Nuisances Abated.	Nuisances remaining in hand.
		Statutory.	Informal.		
Dwelling Houses .....	1886	...	...	...	...
Dwelling Houses (under Town Planning Act).....	97	51	50	51	...
Schools and Public Buildings..	60	...	13	13	...
Factories and Workshops .....	380	...	14	14	...
Dairies and Cowsheds... ..	60	...	16	14	...
Smoke Observations .....	29	1	1	1	...
Bakehouses.....	105	...	10	10	...
Lodging House .....	73	...	2	2	...
Refuse Tips .....	75	...	...	...	...
<b>INFECTIOUS DISEASES—</b>					
Cases Visited.....	96	...	...	...	...
Rooms Disinfected. ....	72	...	...	...	...
Loads of Bedding Disinfected	50	...	...	...	...
<b>NUISANCES—</b>					
	Discovered				
Defective Drains and Slop Pipes	65	42	65	60	5
„ Slop Gullies.....	60	28	60	56	4
„ Soil Pipes, W.C.'s, etc.	31	10	31	28	3
„ Troughs & Downspouts	150	65	144	144	6
Insanitary Yards .....	10	3	10	8	2
Dirty Houses, etc .....	33	18	33	30	3
Dirty Closets .....	8	...	8	8	...
Accumulation of Refuse .....	40	...	40	40	...
Nuisance from Animals.....	5	...	5	5	...
Dangerous Buildings.....	29	...	29	26	3
Broken and uncovered Ashtubs..	18	6	18	16	2
Choked Waste Water Closets ...	34	...	34	34	...
Insufficient Ventilation of Rooms	29	29	29	26	3
Choked Sewers .. ..	19	...	19	19	...
Burst and Defective Water Pipes	53	...	53	50	3
Insufficient Water Supply .....	12	12	12	6	6
Conversion of Pail Closets to Water Carriage System ..	2	2	2	2	...
Conversion of Waste Water Closets to Water Closets..	9	...	...	9	...
Dry Rot in Room Floors .....	...	...	1	...	...
Defective Gas Pipes .....	3	...	2	1	1
Miscellaneous.....	10	...	10	10	...

## INFECTIOUS DISEASES.

Ninety-six cases were notified, which were distributed as follows:— 16 in West-Central Ward, 41 in North-East Ward, and 39 in North-West Ward. Immediately upon receipt of notification of the existence of these cases, the houses were visited and a thorough examination of the premises made, any defects in the drainage, sanitary arrangements, etc., I caused to be remedied as quickly as possible. Thirty patients suffering from Scarlet Fever and three from Erysipelas, were removed under my supervision to Bull Hill Hospital. The rooms previously occupied by the patients were thoroughly cleansed and disinfected. During the year 72 rooms were fumigated and 50 loads of bedding, etc., disinfected. A complete list of the number of cases of infectious diseases in the various wards is included in the Medical Officer's Report.

During the year there was an outbreak of Smallpox in an institution situated in a neighbouring Borough. Lists of Darwen persons who had resided in or visited the Institution were forwarded regularly to the Health Office. The houses were visited frequently and several of the persons were vaccinated. During this period the occupiers of the common Model Lodging House were carefully watched and the Medical Officer informed of their movements.

## BLACK SMOKE NUISANCE.

Twenty-nine observations were taken, each of one hour's duration.

These observations were taken during the early part of the year. In consequence of the Coal Strike, the depression in trade, and the varied and poor nature of the fuel supplied to the mills I afterwards refrained from taking any timed observations of the emission of black smoke from the chimneys. Many visits were, however, paid to mill boiler houses when suggestions were made to the firemen with a view to reducing the amount of black smoke emitted.

The following Time Limit is in force in the Borough—

- One, Two or Three Bailers ... 5 minutes' Black Smoke per hour.
- Four or more Boilers ..... 7 minutes' Black Smoke per hour.

In one instance the Time Limit was exceeded and a Statutory Notice was served upon the occupier of the mill calling for abatement of the nuisance.

The following Table of Analysis of Observations shows the average amount of Black Smoke emitted in minutes per hour during the last 10 years—

1926	1925	1924	1923	1922	1921	1920	1919	1918	1917
2.24	2.58	2.27	2.56	2.54	2.73	3.40	3.0	2.70	2.24

Advantage has again been taken of the mills being closed owing to trade depression and holidays, etc., to carry out repairs of boilers, economisers, stokers, etc. A new Cornish boiler was fixed at the triperery. Owing to trade depression several mills have been closed for varying periods during the year and other mills have provided partial employment only.

### PARTICULARS OF THE BOILERS, ETC., AT THE VARIOUS FACTORIES IN THE NORTHERN DISTRICT.

NAME OF FACTORY	No. of Boilers	No. of Fires	Size of Boiler	Kind of Mechanical Stoker, etc.	Kind of Economiser	Remarks
Anaglypta .....	2	2	each 28ft. x 7ft. 6in.	Benniss's, Self-feeding, Movable Bars	Greens	Superheaters fixed Also Electric Power
Anchor .....	1	2	30ft. x 8ft. 0in.	Benniss's, Self-feeding Movable Bars	Greens	
Bank Top .....	1	2	32ft. 6in. x 9ft.	Proctors, Crossthwaite Bars	Greens	Superheaters
Barley Bank .....	1	2	32ft. x 8ft.	Proctors	Lawcocks	
Belgrave .....	2	2	32ft. x 8ft. 6in.	Hand Fired, (Bennets Bars)	Greens	
Belgrave .....			32ft. x 8ft.	Benniss's Movable Bars	Greens	
Brookside.....	1	2	32ft. x 7ft. 6in.	Proctors, Self-feeding, Movable Bars	Greens	
Bog Height Brick Works...	1	2	30ft. x 7ft. 6in.	Hand Fired	none	
Bottom Croft .....	2	2	each 30ft. x 8ft.	Hand Fired, Crossthwaite Bars	Greens	
Carrs.....	2	2	each 28ft. x 7ft. 6in.	Benniss's Self-feeding, Movable Bars	Greens	Superheaters
Cobden .....	1	2	30ft. x 8ft.	Proctors, Movable Bars	Greens	
Cotton Hall, Spinning	2	2	each 32ft. x 9ft.	Benniss's Stoker, Movable Bars	Greens	
Cotton Hall, Weaving	1	2	30ft. x 8ft.	Proctors, Movable Bars	Greens	
Dove.....	1	2	30ft. x 7ft. 9in.	Hand Fired	Greens	

PARTICULARS OF THE BOILERS, ETC., AT THE VARIOUS  
 FACTORIES IN THE NORTHERN DISTRICTS—Continued.

NAME OF FACTORY	No. of Boilers	No. of Fires	Size of Boiler	Kind of Mechanical Stoker, etc.	Kind of Economisers	Remarks
Earnsdale Waste Works.....	1	1	16ft. 6in. x 5ft.	Hand Fired	none	Also Electric Power
Eccleshill.....	1	2	30ft. x 9ft.	Hand Fired	Greens	
Electricity Works.....	3	2	each 30ft. x 8ft.	Proctors, Movable Bars	Greens	generally only 2 boilers working
Gas Works.....	2	2	each 26ft. x 7ft. 6in.	Hand Fired	none	
George Street (Townshill).....	2	2	30ft. x 7ft. 6in.	Meldrums Furnace	Greens	Forced draught Fan working
George Street.....			28ft. x 7ft.	Proctors Stoker	Greens	
Glossit Works.....	1	1	10ft. x 3ft. 6in.	Hand Fired	none	Electric Power
Hollins Grove.....	2	2	each 33ft. x 8ft. 6in.	Benniss's, Movable Bars	Greens	Also Electric Power
Hillside.....	1	2	30ft. x 8ft. 6in.	Proctors, Movable Bars	Greens	
Hey Fold.....	2	2	30ft. x 8ft.	Hand Fired	Greens	
Hindle Street.....	1	2	30ft. x 8ft.	Proctors, Movable Bars	Goodbrands Greens	5 Boilers generally working
Hollins (Low Chimney)	2	2	each 30ft. 8ft. 6in.	Eriths, Grateless		
Hollins (Tall Chimney)	7	2	30ft. x 8ft. 6in.	Eriths, Grateless	Greens	Superheater
" "			Four each 30ft. x 7ft. 6in.	Eriths, Grateless	Greens	
" "			Two 32ft. x 9ft. 6in.	Benniss's, Self-feeding	Greens	
Lower Wood.....	1	2	20ft. 6in. x 7ft. 6in.	Proctors	none	
Lorne Street.....	1	2	32ft. x 7ft. 6in.	Hand Fired	Greens	
Moss Bridge.....	2	2	30ft. x 8ft.	Proctors, Movable Bars	Greens	
Olive.....	1	2	32ft. x 9ft.	Benniss's Self-feeding, Movable Bars	Greens	
Orchard (Paper).....	1	2	30ft. x 8ft.	Hand Fired	none	} One chimney
Orchard (Cotton).....	1	2	30ft. x 7ft. 6in.	Yates & Thom's Bars	Greens	
Orchard (Commercial)	1	2	30ft. x 7ft.	Proctors, Movable Bars	Greens	
Peel.....	1	2	30ft. x 8ft. 6in.	Hand Fired	Greens	
Provident.....	1	2	27ft. x 9ft.	Leach's	Greens	
Prospect.....	1	2	30ft. x 8ft.	Benniss's, Self-feeding, Movable Bars	Greens	
Queen Street.....	1	1	14ft. x 5ft. 6in.	Hand Fired	Roberts	} Coke used Mill run by electric power
Radford.....	1	2	28ft. x 8ft.	Hand Fired	none	
Springfield.....	1	1	14ft. x 6ft.	Benniss's, Movable Bars	Greens	} Coke used Mill run by electric power
				Hand Fired	none	
				Meldrums Fire Box		
Sunnyhurst.....	1	2	30ft. x 8ft. 6in.	Hodgkinson's,	Greens	} Hamers expansion joint round boiler Hotchkiss' water circulator
Triperies.....	1	1	15ft. x 5ft. 0in.	Hand Fired	none	
Model Lodging House	1	1	10ft. x 4ft. 6in.	Hand Fired	none	} Electric power also
Union St. Saw Mills...	2	1	Small Portable	Hand Fired	none	
Vale Street.....	1	2	30ft. x 8ft. 6in.	Hand Fired	none	
				Tetlows Smoke Box		
Walpamur.....	1	2	30ft. x 7ft. 6in.	Hand Fired		
Walpamur.....	1	1	24ft. x 5ft. 6in.	Hand Fired	none	
Walpamur (Paint Works) ..	1	1	10ft. 10in. x 3ft. 6in.	Hand Fired	none	} Vertical boiler
Woodfold.....	1	2	30ft. x 8ft.	Proctors, Self-feeding, Movable Bars	Greens	
Woodside.....	2	2	each 30ft. x 8ft.	Hand Fired	Greens	

In addition to the above there are many Factories and Workshops in the Northern District which are run solely by Electricity or Gas.

## FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

### I.—INSPECTIONS.

Premises.	Inspections.	No. of Written Notices	No. of Prose- cutions.
Factories (including Factory Laundries) .....	106	9	0
Workshops (including Workshop Laundries) ...	210	5	0
Workplaces (other than Outworkers' premises)	74	1	0
Total .....	380	15	0

### II.—DEFECTS FOUND.

#### Nuisances under Public Health Acts—

	No. of Defects			Referred to H.M. Inspector.	No. of Offences in respect of which Prose- cutions were instituted.
	Found.	Remedied.	Inspector.		
Want of Cleanliness .....	1	1	0	0	0
Want of Ventilation .....	0	0	0	0	0
Overcrowding .....	0	0	0	0	0
Want of drainage of floors .....	13	13	0	0	0
Other nuisances .....	5	5	0	0	0

#### Sanitary Accommodation—

Insufficient .....	1	1	0	0
Unsuitable or defective .....	5	5	0	0
Not separate for Sexes .....	0	0	0	0

#### Offences under F. and W. Acts—

Illegal occupation of Underground Bake- houses (S 101) .....	1	0	1	0
Other offences (excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921 .....	10	10	0	0
Total .....	36	35	1	0

### III.—HOMEWORK.

Outworkers' Lists, Section 107. Lists received from Employers sending twice a year.

Nature of Work.	Lists.	Outworkers.	
		Contractors.	Workmen
Wearing Apparel Making, etc. ....	2	0	3

### IV.—REGISTERED WORKSHOPS.

	Number.
Textile Factories .....	33
Non-Textile Factories .....	73
Factory Workshops .....	46
Workshops .....	109
Workplaces .....	71
	<hr/>
Total Workshops on Register .....	332
	<hr/>

### V.—OTHER MATTERS.

	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshops Acts (S. 133, 1901) .....	0
Action taken in matters referred to H.M. Inspector as remediable under Public Health Acts but not under the Factory and Workshops Act (S. 5, 1901) :—	
Notified by H.M. Inspector .....	2
Reports of action taken, sent to H.M.I. ....	2
Other .....	2
Underground bakehouses in use at end of year (Sec. 101) .....	2

### LIST OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Textile Cotton Factories .....	33	Wholesale Grocers .....	3
Joiners and Builders .....	12	Brush Makers .....	1
Paper and Paint Mills .....	5	Tea Mixing .....	1
Engineers and Foundries .....	10	Painters' Preparation Workshops	7
Printers .....	3	Polishing Paste .....	1
Gas and Electricity Works, etc..	3	Block Cutting .....	1
Waste Sorting Works .....	4	Herb Beer Making .....	1

Aerated Water Works .....	1	Laundry .....	1
Box Making .....	1	Paper Bags and Sack Making...	2
Picture Framing .....	5	Tin Plate Works .....	3
Boots and Shoes .....	36	Scales and Weights .....	1
Chipped Potatoes .....	30	Saddlers .....	3
Ice Cream .....	1	Plumbers .....	8
Dressmakers, etc. ....	29	Blacksmiths .....	1
Hay Chopping .....	1	Tripe Dressing .....	2
Motor Repairing .....	7	Cabinet Makers .....	2
Gut Scraping .....	1	Marine Stores .....	3
Tailors .....	5	Stocking Knitting .....	2
Metal Broker .....	1	Electrical Engineers .....	1
Reed Works .....	2	Watch Repairing .....	3
Slay Makers .....	1	Flock Bed Dressing .....	1
Wheelwrights .....	5	Pickle Making .....	2
Firewood Making .....	1	Cooper .....	1
Pork Butchers .....	5	Metal Engraving .....	1
Destructor Works .....	1	Boiler Composition Works .....	1
Wringing Machine Works .....	1	Basket Making, etc. ....	1
Bakers and Confectioners .....	74		

### TRIPERIES, ETC.

Two tripe dressing firms occupy premises at the Corporation buildings adjacent to the pig abattoirs in James Street West. The greatest possible care is exercised to avoid effluvia nuisances. The waste material is removed daily and cremated. One gut scraper carries out the preliminary part of his work in separate premises situated at the public abattoirs. The casings are sent out of town to be scrapped, etc. There was no cause for complaint during the year.

The provisions of the Public Health Meat Regulations, 1924, have been complied with fairly satisfactorily. It has been necessary to caution a few persons during the year. A sharp outlook has been maintained over the various articles of food offered for sale for human consumption in the district and places where food is prepared have been kept under observation. For particulars regarding the inspection of meat, see the Meat Inspector's Report.

The 30 Chipped Potato, Fried Fish and Tripe Shops have been visited.

There are 16 Wet Fish Shops in the district in which the business has been conducted in an efficient manner and the offal removed daily to the destructor.

## SALE OF FOOD AND DRUGS ACTS, 1875 TO 1907.

During the year I purchased 32 samples of milk and one sample of skimmed milk, these were forwarded to the county analyst for examination. One sample was found to be deficient in milk fat. Information was laid and proceedings were instituted but ultimately withdrawn owing to an error having been made in the service of the summons.

### DAIRIES, COWSHEDS AND MILKSHOPS.

There are 33 farms, with 68 shippons, and 4 milk shops in the Northern District. In addition there are many purveyors of milk whose farms are situated without the Borough. No dairy cows have been kept during the year at Holly Bank and Sniddle Hill Farms. A few farms are used chiefly for rearing young stock. About 500 cows are stalled in the shippons, in addition to young stock and oxen. Improvements were carried out as follows—

Shippon and Yard Pavement Relaid or Repaired .....	4
Lighting and Ventilation of Shippons Improved .....	2
Drains Reconstructed or Repaired .....	3
Repairs to Watering Trough and Service Pipes .....	1
New Easing Troughs and Downspouts Fixed .....	4
Dirty Shippons Limewashed .....	8
Repairs to Roofage of Shippons .....	2
Repairs to Dairy .....	1
Other Work .....	1

Many repairs of a minor nature were also carried out.

Six persons were registered as retail purveyors of milk.

Two persons were registered as wholesale dealers.

One person was registered as a retailer of certified milk.

The water supplies to the various farms have been carefully watched.

The cow keepers and milk sellers have been kept informed of the various regulations and orders in force and copies of circulars issued by the Board of Agriculture relating to Foot and Mouth Disease, Anthrax, etc., have been supplied.

### INSPECTION OF SCHOOLS.

Many inspections of the 12 Elementary Schools were made particularly during the vacations, viz., Easter, Mid-Summer and Christmas, to survey the buildings and ascertain if the cleaning had been done in accordance with your requirements, as issued prior to each vacation by Mr. W. Bretherick, Secretary of Education. The cleaning on the whole was efficiently done. Defects in the buildings, means of ventilation, drainage and pavement of yards were referred to the Education Secretary for attention. Many defects were remedied. The Medical Officer of Health accompanied me to many schools.

### MODEL LODGING HOUSE.

During the year there has been a decrease of 14.33 per month in the number of lodgers when compared with 1925. This is the only common lodging house in the town, a distinct advantage from a public health standpoint. I frequently visited the house, often in the evening after the lodgers had retired to rest, when the cubicles occupied were checked and the books examined.

The following Table shows the daily average number of occupants (males and females) for each month during the last 13 years—

	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.
Jan. ....	121.0	84.6	65.3	59.1	53.04	59.12	70.20	94.51	80.61	91.29	82.00	108.64	90.96
Feb. ....	126.6	86.9	69.1	61.2	54.82	57.90	81.30	92.03	80.25	93.03	81.34	111.39	88.32
March ...	125.6	85.5	67.2	66.3	53.58	59.90	79.30	90.58	80.15	86.90	84.39	110.93	95.74
April .....	129.4	109.2	67.2	68.2	57.77	64.27	91.60	89.16	87.26	87.43	97.50	119.83	95.53
May .....	127.2	88.2	53.1	66.9	54.35	68.70	93.30	79.16	91.41	86.35	98.96	118.94	98.29
June .....	122.3	84.1	50.7	62.2	55.37	72.00	101.83	78.86	83.96	83.53	97.20	109.13	94.20
July .....	124.1	75.7	53.1	60.0	51.26	67.24	100.12	76.77	83.45	73.25	94.64	98.41	87.48
August ...	108.1	73.2	62.1	57.2	48.00	69.23	106.00	76.51	83.16	80.64	98.83	104.35	86.69
Sept. ....	91.1	66.1	60.2	56.7	53.93	71.24	95.16	69.63	82.00	77.43	96.46	99.63	86.46
October. .	94.2	58.1	60.6	57.7	54.90	74.17	89.05	67.90	81.16	75.51	99.48	96.00	89.22
Nov. ....	87.2	61.2	60.0	54.7	56.47	71.70	84.60	72.83	80.13	73.26	104.9	96.50	92.36
Dec. ....	79.2	64.9	61.1	51.7	59.19	68.15	88.79	81.22	86.38	78.03	108.8	94.32	90.93
Average ...	111.3	78.1	60.8	60.0	54.39	66.97	90.02	80.76	83.32	82.22	95.37	105.67	91.34

The daily average number of female lodgers for 1926 was 16.00.

### INSPECTION OF PUBLIC BUILDINGS.

There are three Cinemas in the Northern district which have been regularly inspected during the year. Daily cleansing of the sanitary conveniences has been insisted upon and the internal walls have been washed periodically.

## CLOSET CONVERSIONS.

Two pail closets and nine waste water closets were converted to the water carriage system. The few pail closets remaining cannot be converted as they are situated at too great a distance from the sewers.

## RATS AND MICE DESTRUCTION ACT, 1919.

NATIONAL RAT WEEK, NOVEMBER 1st to 8th, 1926.

During the preceding week the occupiers of mills, workshops, food stores, farms, farehouses, etc., were communicated with and supplied with copies of the Ministry's circular. The response was good and an earnest endeavour was made to destroy rodents, etc. The work done proved to be effective. The various mill owners, farmers, etc., now exercise constant vigilance and a great many more cats are being kept. During the year poisoned bait was placed in selected and suitable places known to be infested and the result was satisfactory. In some infested buildings the drains were found to be faulty, giving rodents access to the buildings. These were remedied at once.

## DOWNSPOUTS, ETC.

Towards the end of the year an inspection was made of the downspouts conveying water from the roofs of houses and other buildings. Particulars are given in the following table. Downspouts connected to drains or terminating in the gardens of palisaded houses or within the curtilages of buildings are not included. In many streets each downspout conveys the water from the roofs of two, three or more houses. Whilst the work of repairing certain streets has been in progress advantage has been taken of the opportunity afforded to lay drains with gully traps for the conveyance of water from downspouts which previously discharged upon footpaths.

DOWNSPOUTS, Etc.	North- East Ward.	North- West Ward.	West- Central Ward.	Totals.
Discharging on Footpaths .....	180	123	75	378
Directly connected to drains .....	420	203	213	836
Discharging into gullies under footpath with access grates in footpaths .....	69	50	45	164
Discharging into iron troughs leading across footpath to street gutters .....	69	70	48	187
Discharging into open gullies on footpaths ....	37	32	35	104
Drain disconnecting traps with iron access and ventilating grates on footpaths and roadways .....	24	20	37	81

### **MANURE PITS.**

The midden steads were regularly inspected and the weekly removal of manure was insisted upon during the summer. Other precautions were also taken to mitigate the nuisances carried by flies.

### **OTHER MATTERS.**

At each monthly meeting of the Health Committee, in addition to the printed report, I have submitted a detailed type-written statement of the work done in the district.

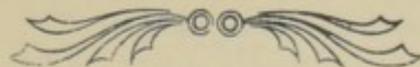
Many nuisances were abated by owners and occupiers immediately after the service of informal notices. In some cases it was necessary to serve statutory notices. These were complied with.

Many agreement forms were signed by owners of property for the Corporation workmen to carry out repairs, etc., to drains, closets, etc. The work was done under my supervision.

I am, Gentlemen,

Yours obediently,

**C. R. WALSH, M.R.San.Inst., M.S.I.A.**



CORPORATION ABATTOIRS,  
POLICE STREET, DARWEN,

March 31st, 1927.

**MEAT INSPECTOR'S REPORT, 1926.**

**To the Chairman and Members of the Slaughter House Committee.**

GENTLEMEN,

All animals were examined upon arrival at The Abattoirs, where they were penned in the lairages, fed and rested before slaughter. The strictest supervision was at all times maintained to prevent the possibility of ill-treatment and every effort was made to ensure slaughtering being done expeditiously and in as humane a manner as possible. A Temple-Cox captive bolt humane killer was purchased during the year and has been used with success in the slaughtering of larger cattle and pigs. One butcher has purchased a similar instrument which he uses regularly.

**FOOT AND MOUTH DISEASE.**

As previously reported on December 23rd, 1925, a beast was certified to be affected with the disease at a farm situated in West-Central Ward, the whole of the herd of seven beasts and two calves were slaughtered and the premises disinfected immediately. The restrictions were not removed until January 20th, 1926. A week later another beast was found to be affected at a farm in a district adjacent to the Borough of Darwen and the restrictions brought the Abattoirs within the five miles radius. Cattle were removed from place to place in the specified area by special license and killed within the time allowed. These restrictions were removed on February 19th.

Throughout the year restrictions have been in force regarding the movement and slaughtering of cattle from certain ports and areas. The country, however, has suffered less from the disease than in the preceding year and there has been no recurrence locally.

**INSPECTION OF SHOPS.**

Many of the retail butchers obtain their supplies from wholesale dealers without the Borough, and large consignments of chilled and frozen meat are brought into the town weekly, necessitating inspection of meat in retail shops.

Consignments of fresh meat have been received from Birkenhead, Bolton, Blackburn and Wilpshire, and passed through the Abattoirs. A sharp outlook is being maintained to see that the orders of the Public Health (Meat) Regulations, 1924, are obeyed.

Owing to industrial unrest and the consequent depression in trade, a smaller number of animals were slaughtered than in past years.

The following Table shows the number of animals slaughtered during the year :—

#### NUMBER OF CATTLE SLAUGHTERED AT THE ABATTOIRS.

	BEASTS.		SHEEP AND LAMBS		CALVES		PIGS Public	TOTAL	
	Public	Private	Public	Private	Public	Private		Public	Private
January.....	95	61	516	336	9	1	87	707	398
February.....	84	49	452	319	11	5	32	579	373
March.....	75	51	449	350	4	1	21	549	402
April.....	76	58	478	357	6	8	5	565	423
May.....	83	68	570	451	0	1	1	654	520
June.....	68	51	556	369	2	0	0	626	420
July.....	56	50	561	406	1	0	0	618	456
August.....	57	48	509	341	1	0	0	567	389
September.....	58	47	523	319	5	0	13	599	366
October.....	97	62	658	365	7	1	32	794	428
November.....	76	49	517	258	4	0	30	627	307
December.....	65	54	480	272	4	1	71	620	327
Total	890	648	6269	4143	54	18	292	7505	4809

During the year it was found necessary to slaughter several animals after the usual hours, either during evenings or week-ends. I was present at the Abattoirs on these occasions. Many visits to farms were also found to be necessary prior to the removal of animals to the Abattoirs.

A great many carcasses required special examination. Forty-eight beasts, three pigs and two calves were found to be affected with Tuberculosis and the entire carcasses of nine beasts so affected were condemned and destroyed. The affected parts of other carcasses and internal organs similarly affected were condemned and destroyed. It was found necessary to condemn and destroy the entire carcasses and internal organs of the following animals for reasons stated, viz. :—

One beast Mammitis and Septicæmia.

Five pigs Hepatitis and Jaundice.

Five sheep Asphyxiated.

Five sheep Injuries.

The total amount condemned and destroyed during the year was 14,163 lbs., as follows :—

Beasts.	Number Examined.			Pigs.	Cause.	Weight in Lbs condemned.
	Sheep.	Calves.				
48	—	2	...	3	Tuberculosis .....	7299
—	5	—	...	—	Asphyxiated .....	154
—	—	—	...	6	Hepatitis and Jaundiced .....	405
3	—	—	...	—	Diseased Udders .....	45
1	—	—	...	—	Traumatic Pericarditis .....	50
1	—	—	...	—	Hydronephrosis .....	12
11	1	1	...	1	Injuries .....	524
2	—	—	...	—	Pleurisy .....	121
1	—	—	...	—	Mammitis and Septicæmia .....	558
8	5	—	...	—	Abscesses .....	236
295	240	—	...	2	Fluky and Diseased Livers and other organs, etc. ....	2659
104	10	1	...	10	Unsound and Bruised Meat .....	2100
Total .....						14163

I am, Gentlemen,

Yours obediently,

**G. R. WALSH, M.R.San.Inst., M.S.I.A.,**

Certified Inspector of Meat and Other Foods.

SUPERINTENDENT'S OFFICE,

CLEANSING DEPARTMENT.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to submit to you my Annual Report for the year 1926.

The following is a summary of work done from January 1st to December 31st, 1926—

	Tons.	Cwts.	Qrs.	
House Refuse to Destructor .....	13,693	...	3	...
Market Garbage to Destructor .....	207	...	7	...
	<hr/>			
	13,900		10	2
	<hr/>			
	Tons	Cwts.	Qrs.	
Clinkers Removed by Motor from Destructor	5970	0	0...	1194 Loads,
Sweepings to Various Tips .....				2020 ,,
Sweepings Deposited by Handcarts at Destructor .....				1933 ,,
Gully Wreck to Various Tips .....				1192 ,,
Street Gullies Emptied .....				24917 ,,
Length of Streets Swept by Hand .....				2715 Miles.
Excreta to Sewage Works .....				398 Loads.
Excreta Pails Emptied .....				8430
Ashes Tubs Emptied .....				340472
Ashpits Emptied .....				785
Water Deposited on Streets .....				941 Loads.
Snow Removed from Streets .....				139 ,,
Ashes Tubs Added during the Year .....				82
Pails Brought in from Closet Conversions .....				12

Yours obediently,

**JOSEPH NICCOLL,**

Cleansing Superintendent.

## Spinners' Scrotal Cancer.

A Departmental Committee was appointed to "Consider evidence as to the occurrence of Epitheliomatous Ulceration among Mule Spinners," and to report to the Home Office.

Their Report was published and circulated in April, 1926, about four weeks after my printed Thesis dealing with this subject.

The Commission asked me for a synopsis of my work and invited me to appear before them for discussion on June 17th, 1925. At that date the detailed work, I was engaged in being incomplete, the final facts and conclusions stated in my Thesis were not then arrived at. In so far as these completed facts and conclusions do not support the Report I feel it my duty to offer the following constructive criticism.

### ARGUMENTS.

The Commission's Report is founded upon two principal arguments—

FIRST ARGUMENT. That of Messrs. Southam and Wilson, of Manchester, published in the "British Medical Journal," November, 18th, 1922, as follows—

- (a) That as the spindles are oiled by mineral oil, this oil is continuously sprayed on to the spinner's overalls in the region of the scrotum.
- (b) That as the spinner pieces his broken ends, he must lean over the Faller Shaft, by so doing, his scrotum comes into contact with this shaft, thereby causing friction. The oil, plus the friction, is the cause of the epithelioma.

SECOND ARGUMENT. Dr. Leitch produced epithelioma upon mice by rubbing mineral oil into their backs.

From these two arguments it is concluded in the Report, that oil is the cause of this disease.

While I agree that mineral oil plus friction can be a cause of Epithelioma, I feel satisfied that in my Thesis I have definitely proved that the Faller Shaft, the Spindles, Bolster, or any part of the Mu'le take no part as a factor in the causation of this disease.

As regards the oiling of the spindles, the Commission's Report and my Thesis agree as to the facts, but differ as to observations and conclusions to be drawn from them.

The Commission's Report, page 17, says "We have been struck by the different amounts of oil used in different mills on the same type of mule. This apparently varies from a minimum of  $\frac{1}{4}$  pint to a maximum of slightly over 1 pint per mule per day. We would suggest that in the interests of economy and of cleanliness, attention should be paid to reducing this to the minimum compatible with efficient lubrication.

Our experiments show that owing to centrifugal action a large proportion of this oil is sprayed off during the first few minutes after starting the machinery, but that occasional drops are still being thrown off after two or even three hours. The oil is thrown from that portion of the bare spindle immediately above the bearing, and normally oil does not appear to creep more than about 1-16 or 1-8 inch up the spindle."

In my Thesis I detail experiments of repeated tests and have definitely established that all oil which is to be sprayed off comes off within the FIRST THREE SECONDS, and that the spinner cannot possibly be in a position to get any of this spray upon his overalls.

Apparently no actual tests have been made by the Commission as they are content to say "the first few minutes." The quantity of oil thrown off in three seconds has been found, by my experiments, to be actually more than the Commission in their Report (page 18) states is thrown off, namely, my finding 1-10th of a pint per day per mule instead of the Commission's finding of 1-13th of a pint.

The Commission states "That a quarter to one pint of oil per mule per day is used in the oiling and there are two oilings." There are 9,600 minim drops in one pint. On the Commission's smallest computation, therefore, of  $\frac{1}{4}$  pint of oil per mule per day there would only be 2,400 minim drops per mule per day or 1,200 at each oiling and as there are 1,320 spindles (see page 18 of the Report) per mule, this means that each spindle would get less than a drop per oiling and if one takes it at  $\frac{1}{2}$  pint per mule per day it would still be less than two drops per oiling, and as the spindles are revolving at 11,000 revolutions per minute it is difficult to take seriously the suggestion that these two drops or any part could be sprayed off for hours.

It must be remembered also that, when the oil is being sprayed off, that portion which is being sprayed towards the worker is only a quarter of the total spray circle. An equal amount will be sprayed off, of course within the first three seconds towards the creel and to the right and left.

I therefore contend that as argued in my original Thesis no oil can reach the spinner from the bolster or any part of the mule.

My photographs further show very definitely that under no working conditions does the man's scrotum touch the Faller Shaft.

It may be stated that the whole theory of the Faller Shaft coming into contact with the spinner during the process of piecing breaks down in association with the spinners themselves. It is learned from them that when piecing is taking place, to touch the Faller Shaft involves a loss of balance, and this happens to none except beginners.

Just as the writer of the Commission's Report uses the phrase "first few minutes," in regard to the oil spray, so on page 16, he states that the height of the Bolster above the floor level is 2 feet 6 inches whereas the exact height is 2 feet 3½ inches, this is very material to our discussion as if oil did spray from the bolster at a height of 2 feet 6 inches it would be at the scrotal level, but at 2 feet 3½ inches it is below the scrotal level. It is sufficient to say that all spinning mules are standardised.

As I have shewn the spinning mule can take no part as a factor in this disease, recommendations 2 and 3 given in the Report on page 27, will add to expense and serve no purpose. These recommendations are :—

- " (2) Development of a non-splash type of spindle bearing, more particularly for new mules.
- " (3) Prevention of oil splash from the spindles of existing mules by means of some form of guard, the type to be decided by a series of tests to be mutually agreed upon and arranged by the Masters' Federation and the Operative Spinners."

Although I have demonstrated that oil is not thrown on to the spinner from the spindles, oil, however, is found upon the overalls in two areas, namely, at the knees and down the flanks or thighs. This oil is received from the floor, during the process of repairing any defects which may happen to the working parts of the mule. The spinner kneeling to carry out these repairs receives the oil direct upon his knees and when finished he wipes his hands down his flanks to dry off the oil before he does any piecing, as he must not oil-stain any thread. Most of the oil, however, is RECEIVED EACH SATURDAY MORNING when the spinner has to clean every part of his pair of mules. After this cleaning up, which is the real dirty and oily part of his week's work, the spinner takes his dirty overalls home and returns on Monday morning with a clean pair. These facts are fully detailed in my Thesis, as also the fact that by chemical analysis, while oil was determined to be present in the areas mentioned, no oil was found within the scrotal area.

Scrotal sweat was, however, found by analysis in the fork area of overalls.

Reviewing all these facts, it cannot in my opinion, be contended that because Dr Leitch produced epithelioma under laboratory conditions upon mice with oil, that similar laboratory conditions obtain in the mill under ordinary working conditions. Further, if this oil was cancerogenous, as the men work in bare feet, which are permanently oily, and under friction afterwards in their oily socks, there would be cases of epithelioma of the feet. I have heard of no such case amongst spinners, although I have seen several cases of epithelioma of the feet.

Further, there are mills in Lancashire where women have always been employed as spinners, and no case of vulvar epithelioma is recorded. Neither does the oil theory explain the fact that 84 per cent. of these epitheliomas occupy an exactly similar site, the remaining 16 per cent. occurring upon a second specific site, as stated and explained in my Thesis.

Many observations which I have made since, confirm my then stated opinion, namely, that the cause of spinner's scrotal cancer is DUE TO THE FRICTION OF THE FORK OF THE HARD BLUE OR WHITE OVERALL ACTING UPON THE SCROTUM EACH TIME THE SPINNER LEANS OVER THE FALLER SHAFT TO PIECE, THE FORK BEING PULLED UP BY THE STRETCHING MOVEMENTS OF THE BODY REQUIRED BY THE PIECING OPERATION ACTING UPON AN INELASTIC BRACE. The aniline dye which stains the legs and scrotum and the dirt on the scrotum, are aggravating factors.

Irritation has been proved experimentally to produce epithelioma, refer B.M.J. page 872, May 14th, 1927.

I suggest that the hard rough open seam at the overall fork produces irritation 200 to 240 times a hour  $5\frac{1}{2}$  days per week upon the scrotum at the specific sites of this disease, according to the spinner's reach in piecing his broken end.

There are certain facts in the Commission's Report which support my contention.

GEOGRAPHICAL DISTRIBUTION OF CASES COLLECTED FROM  
1876 ONWARDS.

DISTRICT.	Spinners.		Ex-Spinners in other occupations.		Total.	Rate per 1000
	Scrotum.	Other parts of the skin.	Scrotum.	Other parts of the skin.		
Oldham (8131).....	160	39	26	4	229	20
Bolton (3900) .....	57	12	11	...	80	15
Ashton-under-Lyne (2740) ...	25	8	11	2	46	9
Rochdale (1702) .....	22	3	3	1	29	13
Wigan (1272) .....	8	6	1	...	15	ε
Preston (1139) .....	19	1	4	...	24	17
Blackburn (974) .....	44	3	4	2	53	45*
Stockport (788).....	7	1	4	...	12	9
Halifax (698).....	5	2	1	...	8	7
Manchester (548) .....	11	2	2	1	16	20
Burnley (427) .....	18	2	2	...	22	42*
Huddersfield (320) .....	4	...	...	...	4	12
Keighley (56) .....	1	...	...	...	1	18
<b>Total (22699).....</b>	<b>381</b>	<b>79</b>	<b>69</b>	<b>10</b>	<b>539</b>	<b>...</b>

The districts marked with \* changed to rough blue overalls about 1905, the other districts changed to rough white about 1905, but adopted the blue about 1917.

The figures which have been added by me in column 7 in this Table give the rate per thousand spinners employed, from which it will be noticed immediately that a heavier rate falls to the Blackburn and Burnley areas. It is interesting to note that in these two areas only, the wearing of blue overalls commenced in 1905. Other areas did not adopt blue until 1917, but from about 1905 wore white overalls made of the same material in all respects except colour. The question does arise as to whether the aniline dye in the blue overalls added to the friction of the overall fork accounts in some measure for the increased incidence in these two areas. This is, of course, a matter of conjecture but highly suggestive. Since the other areas are now increasingly wearing blue, will the incidence rate in these areas increase to the Blackburn and Burnley rates?

I stress the fact that the Fustian overall was discarded in 1905 by some 90 per cent. of spinners, the present day rough cotton material being used since that date.

The very few cases of scrotal epithelioma during the years prior to 1905, and for some years afterwards did not exceed the average rate for the general population.

The Report states on page 5, "We have also made some inquiries abroad as to whether there is evidence of a similar incidence amongst cotton mule spinners, but, so far, replies from France, Germany, Russia, Poland and America have led to entirely negative results. This is a little difficult to explain, but it must be borne in mind that the number of mule spindles in Great Britain is very much greater than the number in any other single country, that the number of persons employed abroad is consequently less and that the number of cases likely to occur annually, if at all, would be very small."

The explanation I suggested for the absence of the disease in mule spinners in the foreign countries mentioned is the fact that in those countries braces are not worn but a belt only. In attempting to account for the absence of the incidence of this disease it is not very convincing to refer to the smallness of the numbers because, after all, the Table on page 4 of the Report, is comprised of a number of small areas composed of small numbers.

The Report states on page 8, "Another fact which reveals itself from this inquiry, is that the disease does not usually occur until the person affected has been employed in the mule room for a considerable period of time. In only 14 (or 2.6 per cent.) of the 539 cases investigated, was the duration of employment before the disease manifested itself less than 20 years, while the average duration of employment for all cases was approximately 40 years. The shortest length of time in the case of persons employed only as spinners was 10 years, and the longest 63 years; while the maximum interval from the commencement of employment as a spinner to onset of disease was 68 years."

I suggest that these findings should date from the change of overalls (1905), and not from the oil spray, faller shaft friction theory. This will lessen the time element considerably, and will be more in keeping with the facts and incidence increase as given in the Home Office Table.

My theory has received confirmation from an unexpected quarter during the last few weeks in the nature of a commentary added by Dr. Derric C. Parmenter, to my Article upon Spinners' Cancer which has just been published in the Journal of Industrial Hygiene, June, 1927.

It reads as follows :—

"So far as I have been able to discover, cancer of the scrotum is relatively rare in the United States. Cases have been reported among men working with tar and with the paraffin oils, but these cases are few and not well defined.

There seems to be very few recorded cases of cancer which are directly traceable to the cotton trades, such as spinners' scrotal cancer. This may be due to :—

- 1 Lack of observation heretofore.
- 2 The tendency of mill hands in the South to wear trousers with belts rather than shoulder strap overalls.
- 3 The general tendency of mill hands in the North, the majority of whom wear overalls, to wear also some sort of underclothing.

Any of these factors would undoubtedly tend to reduce the occurrence of anything like the spinners' cancer as discussed in Dr. Robertson's article.

In Massachusetts at the present time an intensive study of cancer is being conducted by the state authorities, with special reference to its etiology. This investigation should call attention to any types of cancer which may be of industrial origin. As yet, however, no definite conclusions have been reached.

DERRIC C. PARMENTER."

After an address I gave to the Pathological Society at Manchester on spinners' scrotal cancer, Dr. Savatard showed a case of this disease, the patient also suffering from Ichthyosis. We arranged to carry out some further investigations along this line of thought, and Dr. Savatard very kindly gives me permission to publish the following, being an extract from a paper he read to the Society of Dermatology, London, May, 1927.

"What is the relative frequency of Ichthyosis? It is apparently fairly common in Lancashire, but its incidence may vary in different parts of the country. In an examination of 400 operatives I have found a 5 per cent. incidence.

Through the kindness of my friend, Dr. Robertson, M.O.H. for Darwen, I have recently been afforded the opportunity of inspecting 400 mule spinners at work. Their ages ranged from 15 years to 65 years and the duration of their occupation from two days to fifty years. I found twenty affected with Ichthyosis. In ten the affection was slight and in the other ten the condition was well marked. Of these two had suffered from scrotal cancer. Three presented keratotic lesions on the face and temporal regions. I saw no such lesions in the non-ichthyotic: Hyperkeratosis of the palms was seen only in the ichthyotics. I could find no evidence of any dermatosis of an occupational character, unless it be two cases of mild folliculitis of the arms in two youths who were also affected with Ichthyosis.

As a result of this investigation I believe that Ichthyosis is an important etiological factor in mule spinner's cancer. Though I do not deny that Scrotal cancer does arise apart from Ichthyosis, I am convinced that the great majority of such patients will give evidence of an ichthyotic skin.

It is not my purpose to discuss the cause of Scrotal Cancer but I would express my regret that the Departmental Committee as a result of its enquiry in 1925 should have found that "in the absence of exposure to mineral oils there would be no mule spinners' cancer." I cannot help thinking that this conclusion was a little bit premature. Dr. Robertson, in a very careful enquiry into this subject, comes to a very different conclusion."

In conclusion the experience gained in visiting a large number of mills makes me entirely agree that much can be attained by regular medical inspection and advice. I am further of opinion that such inspection would rapidly secure personal hygiene amongst spinners, and this in itself would tend to lessen the incidence of this serious disease.

I also strongly recommend that braces should be discarded, and that belts be worn, and further that the spinner should wash his thighs and scrotum with soap and water every night. By these means I am confident that this disease would be conquered.

**JAMES ROBERTSON,**

Medical Officer of Health.

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