[Report 1938] / Medical Officer of Health, Bacup Borough.

Contributors

Bacup (England). Borough Council.

Publication/Creation

1938

Persistent URL

https://wellcomecollection.org/works/e443fzxx

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection 183 Euston Road London NW1 2BE UK T +44 (0)20 7611 8722 E library@wellcomecollection.org https://wellcomecollection.org

Borough of Bacup





1 IRRAPV

Annual Reports

of the

Medical Officer of Health

and

Sanitary Inspector

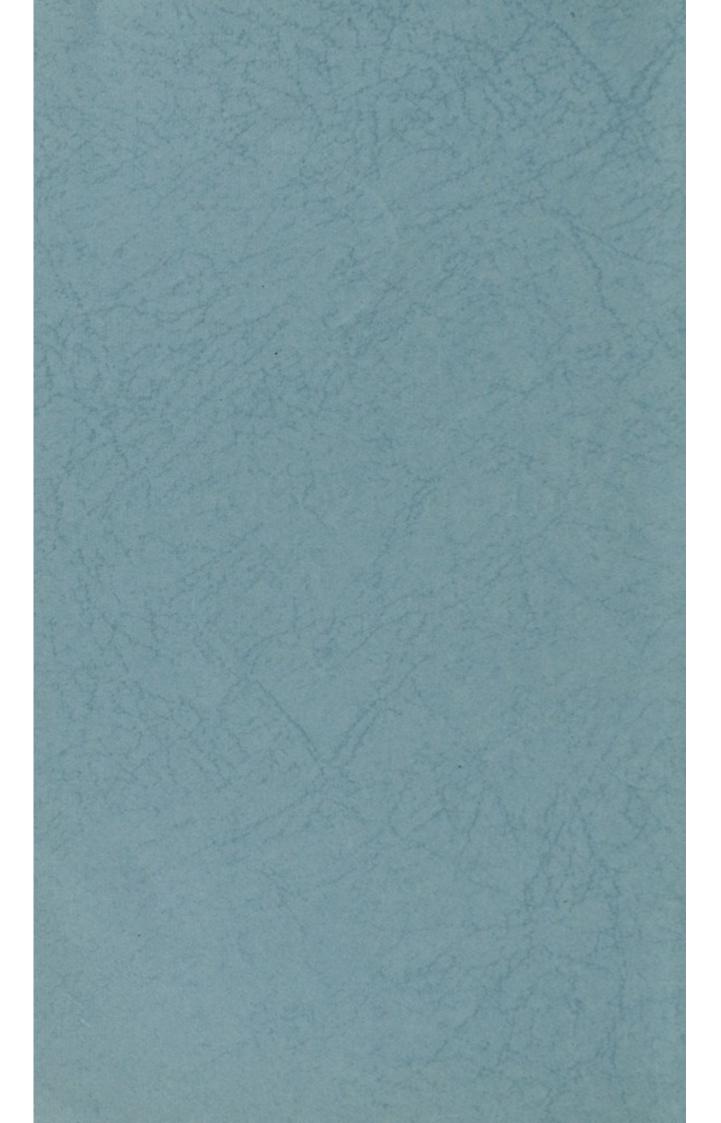
on the

PUBLIC HEALTH SERVICES

of the Borough of Baoup

1938

Bacup Times, Ltd., King Street, Bacup.



Borough of Bacup



Annual Report

on the PUBLIC HEALTH SERVICES

of the Borough of Bacup 1938

by

J. W. McKinney

M.B., Ch.B., D.P.H.

MEDICAL OFFICER OF HEALTH

Maternity and Child Welfare Medical Officer, School Medical Officer.

Bacup Times, Ltd., King Street, Bacup.

BOROUGH OF BACUP

Health Committee.

His Worship the Mayor, Councillor W. J. Hartley, J.P. (ex-officio).

Alderman E. Gledhill (Chairman).

Councillor J. H. Hargreaves (Vice-Chairman).

Councillor F. D. Ashworth,

,,	H. Ashworth,
,,	T. Ashworth,
,,	E. Barcroft,
,,	W. Marshall, J.P.
,,	A. Rhodes,
,,	F. Smith,
,,	S. C. Smith.
,,	W. Wright.

Maternity and Child Welfare Sub-Committee.

All the Health Committee. The Mayoress (Miss L. Hartley), Mrs. H. Graham, Mrs. J. A. Hargreaves, J.P., Mrs. E. Howorth, Mrs. J. Macdonald, J.P., Mrs. W. M. Taylor.

Public Health Officers.

Medical Officer of Health, Maternity and Child Welfare Medical Officer, School Medical Officer: (Part Time)

J. W. McKinney, M.B., Ch.B., D.P.H.,

Dental Surgeon to Education Authority: J. Midgley, L.D.S. (Part Time).

Puerperal Pyrexia Consultant: Dr. A. Callam, 1, Ormerod Road, Burnley. (Telephone: Burnley 3973).

Consultant-Specialist. Ante-Natal Clinic: Dr. R. Newton, 11, St. John Street, Manchester. Home address. "Leeside," Wythenshawe Road, Sale. (Telephones: Blackfriars 2198 and Sale 4878).

Borough Analyst. (Part Time): T. R. Hodgson, M.A., F.I.C., F.C.S. Chief Sanitary Inspector, Meat and Foods Inspector and Smoke Inspector:

Cleansing Superintendent:

W. A. Healey, Cert. of Sanitary Inspectors' Exam. Joint Board Mem. San. Inspector's Association. Cert. Inspector of Meat and Foods, R.S.I. Cert. Smoke Inspector, R.S.I. City and Guilds Inst. (Boiler House Practice) (First Class).
Diploma of Royal Inst. of Public Health and Hygiene. (Appointed 7th Dec., 1938).

Arthur Edward Barnes, A.R.S.I., M.I.P.C., M.S.I.A., (Resigned 31st October, 1938).

Additional Sanitary Inspector: R. E. J. Hargreaves (Appointed 7th December, 1938). Cert. of Sanitary Inspectors Exam. Joint Board. Associate of the Royal San. Inst. Mem. San. Inspectors' Association.

Assistant Sanitary Inspector :

A. Smithson, A.R.S.I. (resigned 12th November, 1938).

Health Visitor : Miss E. Fletcher, S.R.N., Certified Midwife.

School Nurse: Miss B. Kelly, S.R.N., Certified Midwife.

Clerk, Public Health Department: Clifford Walkden.

Public Health Department, Rochdale Road, Bacup,

April, 1939.

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

Mr. Mayor, Ladies and Gentlemen,

I have the honour to present to you my Eighth Annual Report on the Health of the Borough.

This report deals with statistics for the year 1938.

The general health remains most satisfactory. We had an outbreak of Diphtheria, the cases being mostly of a mild nature.

I am pleased to say that the attendances at all the Clinics have been most gratifying.

During the year further extensive work has been done under the Housing Act. Full details of this work are given later in the report.

I take this opportunity of expressing my thanks to the Staff of the Public Health Department and other Corporation Departments, and in particular to your retired Sanitary Inspector, Mr. A. E. Barnes for all his loyal co-operation and assistance which was always so willingly given to me since my appointment, and to the Health Committee for their consideration and co-operation.

> I am, Mr. Mayor, Ladies and Gentlemen, Your obedient servant,

J. W. McKINNEY,

Medical Officer of Health.

MEDICAL OFFICER'S ANNUAL REPORT FOR 1938

Area in Acres-6,121.

Registrar General's Estimate of resident population 1938-19,660.

Population Census, 1931-20,590.

Number of Inhabited Houses-5,977.

Rateable Value-£86,877.

Penny Rate Yields-£330.

The Registrar-General has supplied a Population Estimate of 19,660 for use in this report, the one supplied in 1937 being 19,760.

Bacup is essentially a manufacturing town, the people being chiefly employed in the Cotton and Felt Trades, Slipper Manufacture, Sandstone Quarrying, Dyeing, etc.

Principal Causes of Deaths During 1938.

	M	F	
Aneurysm	1		1
Influenza	_	1	1
Diphtheria		3	3
Respiratory Tuberculosis	3	6	9
Other Tuberculosis	1		1
Cancer	11	20	31
Diabetes	_	6	- Ē
Cerebral Hæmorrhage	7	10	17
Heart Disease	33	30	63
Other Circulatory	16	6	22
Bronchitis	10	10	$\tilde{20}$
Pneumonia (all forms)	6	3	-09
Other Respiratory Diseases			2
Peptic Ulcer	$\frac{2}{3}$		$\tilde{3}$
Appendicitis			1
Other Digestive Diseases	5	4	9
	4	7	11
Acute and Chronic Nephritis	4	i	1
Puerperal Disease	5	8	13
Congenital Causes, etc	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Senility	10	17	27
Suicide	1	2	3
Other Violence	6	6	12
Other Defined Causes	11	5	16
Ill-defined or N.K.	1	2	3
G.P.I. Tabes, Etc.	-	1	1
Total	137	148	285

Total Deaths, 1937: 311.

		Total	Males	Females		
(1	(anitimate					
(1	Legitimate	251	121	130	inth Data 12	4
Live Births	Illegitimate	14	7	7 J D	irth Rate 13	.4
(-	Fotal	265	128	137		
Still Births		26	15	11	Rate per 1,0	00
Other Dirths		20	10		'otal Births,	
Deaths		285	197			
Deaths		200	137		eath Rate 14	
				from s	epsis	0
	omen dying i			1.		
	f, childbirth					1
Death rate 1,	000 total (live	e and st	ill) birtl	ns	3.43	
(" "	,, ,,	,, ,,	Eng	land & W	ales 2.97)	
	infants unde		100			
					10	
	ts per 1,000 li				49	
	te infants per					
Illegitima	ate infants per	r 1,000 i	llegitim	ate live bi	rths —	
Deaths from	Cancer (all a	ges)	. //		31	
Death Rate	from Pulme	onary]	ubercu	losis	0	45
,, ,,)		05
,, ,,				(except		
			and the second			
,, ,,						
,, ,,						
1, ,,				rears)		00
•• ••					A	
.,		c Fever	• • • •		0.0	Sec.
,, ,,	,, Dipht	neria	••••	••• •••	0.	19
	Per 1	,000 of H	opulation	n,		
				Maternal Mor		
Live Birth-		Tuber- is of C	from Cancer	Per 1,000	Per 1,000 und	
rate	rate Respin Sys		1	live Births	Total One Live & Still pe	-
Mean of					Births 1,00 Li	
5 years					Bir	ths
1933-37 13.8 1937 12.5		0.58 0.80	1.76 2.02	7.14 4.04	6.72 58 3.93 60	
1938 13.4		0.45	1.57	3.77	3.43 49	
Increase or De						
crease in 1938 of	n					
5 years' average						_
1933-37 -0.4	-0.5 -0	0.13 -	-0.19	-3.37	-3,29 - 9	9
Previous	12	0.35	0.45	-0.27	-0.50 -1	11
Year +0.9			-0.45			
1938 adjusted	Death Rate (c	omparabi	any facto	(1.08) =	15.5 per 1,0	00,

Respiratory Diseases.

The number of deaths from above were Bronchitis 20, Pneumonia 9, other Respiratory Diseases 2, a total of 31, giving a death-rate of 1.58 per 1,000 of population per annum against a death-rate of 1.82 for 1937.

Diarrhœa and Enteritis.

There were no deaths (under 2 years of age). The deathrate for England and Wales for 1938 was 5.5 per 1,000 live births.

Cancer and Malignant Disease.

The deaths from the above were males 11, and females 20, total 31. This gives a death-rate of 1.57 for 1938 against 2.02 for 1937.

Maternal Mortality.

There was 1 death during the year.

General Provision of Health Services.

Professional Nursing in the Home (a) General is undertaken by the Bacup Nursing Association, 2 Nurses; (b) Infectious Diseases, e.g., Measles, Whooping Cough, Puerperal Pyrexia, Pneumonia, Typhoid Fever, and Ophthalmia Neonatorum by the same nurses.

The Bacup Nursing Association has no connection with the Local Authority.

Under the Midwives Act, there are three midwives in practice, namely: Nurses Barcroft, Graham and Pollard.

Clinics and Treatment Centres. Maternity and Child Welfare Centre and its work is put in Infant Mortality Section. School Clinics are under the Education Committee. Tuberculosis Clinic is under the Lancashire County Council Tuberculosis Committee.

Hospital Arrangements.

1,292 cases received treatment in the following hospitals under recommends from the Bacup Borough Hospital Fund :-

Rochdale Infirmary	348
Manchester Royal Infirmary	276
Bury Infirmary	159
St. Mary's Hospitals, Manchester	97
Manchester Royal Eye Hospital	72
Manchester and Salford Skin Hospital	41

Royal Manchester Children's Hospital	38
Manchester Ear Hospital	10
Ancoats Hospital, Manchester	3
Manchester Hospital for Consumption, etc	4
Christie Hospital and Holt Radium Institutes	5
Manchester Northern Hospital	16
Greenfield Massage Centre	173
Burnley Victoria Hospital	13
Manchester Victoria Memorial Jewish	
Hospital	20
Other Hospitals	12
Devonshire Royal Hospital	5

Home cases are assisted as regards nourishment-Surgical and Medical appliances by the Mayor's Central Aid Fund.

Maternity. Special arrangements made with Moorlands House, Rawtenstall; joint agreement with Lancashire Public Assistance Committee No. 7 Haslingden Area according to number of cases sent in.

Children. None, except that if mother is fit to leave Moorlands House after confinement there the baby may remain if necessary for special treatment.

The Bacup, Rawtenstall and Haslingden Orthopædic Clinic was opened in January, 1930, for non-tuberculous cases. It is for children under school-age as well as school children, and is part of the Lancashire County Council Scheme. It is held in The Clinic, Kay Street, Rawtenstall.

Smallpox. Joint Hospital at Sourhall, Todmorden, with 32 beds.

Fevers. Agreement with Bury Joint Infectious Hospital Board—beds unlimited for Scarlet Fever, Diphtheria, Enteric Fever, Puerperal Pyrexia, Cerebro Spinal Fever, Poliomyelitis, Encephalitis Lethargica, Polioencephalitis.

Other Diseases. Ophthalmia Neonatorum cases can obtain admission to the Royal Eye Hospital, Manchester. Special arrangements for diseases when required, e.g., Influenza Epidemic 1918, the Haslingden Guardians had a special arrangement for Influenza-Pneumonia cases in their hospitals, Erysipelas when required. Ambulance Facilities. (a) In infectious cases—provided by hospitals. (b) Non-infectious and accident cases—the Borough Ambulances.

Sanitary Circumstances in the Area.

Water Supply: —Town's Water Supply is from moorland gathering grounds and is passed through Bell's Patent Mechanical Pressure Filters.

Special attention is being paid to the gathering grounds in order to bring the risk of any sources of contamination to a minimum.

Frequent chemical and bacteriological examinations of the water are made.

The Borough and Water Engineer's Report below gives details of water supplies, also drainage and sewerage :--

1. New connections to Town's Water Supply :--

Private Houses (domestic use):

H.L. 40, L.L. 348	 360
Works and Mills (by meter)	 nil
Urinals	 nil
Garage	 1
Lock-up shop	 1
Electricity Showrooms	1
Cemetery Registrar's Office, etc	.1
Salvation Army Hall	
Sprinkler Main (to Mill)	 1
Deductions for Vacated Houses	
$(1930 \text{ Act}) \dots \dots \dots \dots$	 149

2. New District Connected to Water Supply: Underwood, rear of Blackwood Road, Rockcliffe Estate (further development), Cutler Greens Housing Estate, Holme Street, Star Bank, Unsworth Street, Hardman Terrace, Boarsgreave, Cowpe Drive, rear of Acre Mill Road, Brunswick Terrace, Rockliffe Farm and Parrock Lumb.

3.	New coni	nectio	ns to	exis	sting	Ser	vice	Pipe	es :
	Hot W	Tater							51
	Baths								20
	W.C.'s								28
	W.C.'s	s (by	Mete	r					3

A CARLER AND AND A CARLER AND A C						 4
Wash						 4
Farms	and E	leating	Appa	ratu	18	 nil

4. Total number of connections and consumers to Town's Water Supply :--

Domestic connections 5,759
,, consumers (at $3\frac{1}{3}$ persons
per connection) 19,197
(Note: Number of consumers was calcu- lated on basis of 3½ persons per connec-
tion up to August 1938 and was reduced
to $3\frac{1}{3}$ persons per connection from Sep-
tember 1938).
Workshops, Mills and Urinals 145
Sprinklers 22
Water Analyses :
During the year, 15 samples of water have
been sent to the Borough Analyst:
12 Samples of Town's water :
9 reported excellent;
3 reported not plumbo-solvent.
3 Samples from private sources :
2 reported slightly acid and plumbo-solvent;
1 reported quite fit for domestic use.
Frequently samples of water have been
examined bacteriologically and suitable
action taken when tests have indicated the need for action. Approximately 68 tests
have been made on water from town's
water supplies (including gathering
grounds) and 5 tests on private supplies.
Water Analyses (including samples taken by Public Health Department) :
During the year 90 samples of water have been sent to the Borough Analyst.
80 samples from Town's Water: All reported satisfactory.

5.

6.

- 6 samples from Private Supplies : Fit for domestic purposes.
- 4 samples from Private Supply : Unfit for domestic purposes.

7. Drainage and Sewerage:

New Sewers:

Cutler Greens: 6in. G.E. Pipes	 	48 yds.	lins.
do. 9in. do.	 	113 ,,	,,
Wesley Place : 9in. G.E. Pipes (rel			
Vale Street: 9in. G.E. Pipes			,,
do. 12in. G.E. Pipes Herbert Street: 15in. G.E. Pipes			,,
Branch Street: 9in. G.E. Pipes			,,
brunen brieet, om, d.n. ripes	 	.,,	,,

New Surface Water Drains:

Hardman Drive: 9in. G.E. Pipes				
Cutler Greens: 6in. G.E. Pipes				
do. 9in. G.E. Pipes				,,
Change Tip				,,
Glen Street: 12in. G.E. Pipes				,,
Thorn Estate: 6in. G.E. Pipes				,,
Nr. Sheephouse Res.: 12in. G.E.				,,
Vale Street: 15in. G.E. Pipes	 	67	,,	,,
South Street: Culvert repaired.				

8. New connections to sewers: 49

9. Housing :-

No.	of	new h	ouses e	erecte	d du	uring	the	yea	r: .
	By	Local	Autho	rity					166
	By	other	bodie	s or	pers	sons			21

187

Schools

The general condition of the Schools is fair, but the sanitary arrangements in some require to be improved in order to raise the standard. This I consider an important part in the education of the child.

The erection of the new school at Blackthorn was commenced during the year, and is now completed.

As S.M.O. I am always in touch with them as regards the prevention and spread of infectious diseases.

Two schools were closed on account of infectious diseases (Diphtheria) during 1938.

Rivers and Streams.

These are attended to by the Mersey and Irwell and Rivers Board.

Inspection, Closets, Scavenging, &c.

These are in the Sanitary Inspector's part of the report. Conversion of pail closets to fresh W.C.'s is progressing. During the year 22 conversions took place.

Common Lodging Houses.

There are two Common Lodging Houses, which are kept in a satisfactory condition.

Tents, Vans, Sheds, &c.

All vans, etc., visiting the town are inspected.

1

Swimming Baths and Pools.

There are Public Swimming Baths also Foam, Vapour, Turkish and Vichy Douche, the water of which is from the Town's supply, and is regularly changed.

Housing Statistics, 1938.

•	Inspection of Dwelling-houses during the year: -
	 (1) (a) Total number of dwelling-houses in- spected for housing defects (under Public Health or Housing Acts) 903
	(b) Number of inspections made for the purposes 2262
	 (2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 145 house
	(b) Number of inspections made for the purposes 221
	(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human

...

habitation

144

...

...

14
(4) Number of dwelling-houses (exclusive of those referred to under the preced- ing sub-head) found not to be in all respects reasonably fit for human habitation 1
2. Remedy of Defects during the year without Service of formal notices :-
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers
3. Action under Statutory Powers during the Year :-
(a) Proceedings under sections 9, 10 and 16 of the Housing Act, 1936:—
(1) Number of dwelling-houses in respect of which notices were served requiring repairs
(2) Number of dwelling-houses which were rendered fit after service of formal notice : —
(a) by owners
(b) Proceedings under Public Health Acts.
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 8
(2) Number of dwelling-houses in which defects were remedied after service of formal notices : —
(a) by Owners 8 (b) by Local Authority in default of owners
(c) Proceedings under sections 11 and 13 of the Housing Act, 1936:—
(1) Number of dwelling-houses in respect of which Demolition Orders were made

- (2) Number of dwelling-houses demolished in pursuance of Demolition Orders ...
- (d) Proceedings under section 12 of the Housing Act, 1936:—
 - (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ...
 - (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit

Inspection and Supervision of Food.

Milk supply is good, being principally from local farms, regularly inspected. Pasteurised milk is also available. When necessary, cattle are inspected by a Veterinary Surgeon. For meat, under Public Health (Meat) Regulations 1924 the Sanitary Inspector is an Inspector. Meat stalls are closed in on three sides. There are only private Slaughterhouses.

1938
None
13

13

4

Bake-houses and places where food is prepared are inspected.

Article.	No. of Samples taken.	Genuine.	"Not" Genuine.	Remarks.
Milk (By Mr. Barnes).	12	12	,	
Potted Meat	1	1		
Baking Powder	1	1		
Jam	2	2		
Fresh Cream	1	1		
Cheese (Cheshire)	2	2		
Butter (English)	1	1		
Lard	1	1		
Whisky (Irish)	1	1		
Coffee	2	2		
Epsom Salts	1	1		
Sausages	1	1		
Margarine	2	2		
Tonic	1	1		
Brawn	1	1		
Vinegar	1	1		
Tin of Peas	1	1		
Honey	2	2		
Shredded Suet	1	1		
Chocolate Liqueurs	1	1		
Totals	36	36		

The following samples were taken and submitted to the Analyst :--

Further particulars as to Meat and Food Inspection, etc. are in the Sanitary Inspector's part of the report.

Diphtheria.

There were 58 cases, 3 deaths. Fifty-three cases treated in hospital. Number of cases in 1937, 11.

Erysipelas.

11 cases. One death. 8 cases in 1937.

Scarlet Fever.

23 cases. No. deaths. 10 cases in 1937.

Puerperal Pyrexia.

1 case of Puerperal Pyrexia. No deaths. One case in 1937.

Whooping Cough.

No deaths Fair number of cases.

Pneumonia.

14 cases compared with 30 in 1937. 9 deaths, compared with 7 in 1937.

Smallpox.

There were no cases of Smallpox.

Anthrax.

There was one case of Anthrax notified.

OPHTHALMIA NEONATORUM.

	Cases						
	Treated		Vision Un- impaired	Vision Impaired	Total Blindness	Deaths	
Notified	at Home	in Hospital					
1	yes	-	yes	-	-		
1	yes	-	yes	-	-	-	
1	yes	-	yes	-	-	-	
1	yes	-	yes	-	-	-	
1	yes	_	yes	_	-	_	

Tuberculosis.

There were 23 Pulmonary cases and 10 deaths. Non-Pulmonary cases were 22 with no deaths. Pulmonary deaths per 1,000 were .81 compared with .81 for 1937. Non-Pulmonary deaths per 1,000 were none, compared with .05 for 1937.

	New	CASES			Deaths			
Age Periods	Pulmonary		Non- Pulmonary		Pulmonary		Non- Pulmonary	
	M.	F.	М.	F.	М.	F.	М.	F.
Years 0-1								
1—5			2	4				
5—10			3	2				
10—15			1	4				
15—20		1	1	3		1		
20—25	2	1	1			2		
25-35	5	3		1	3	1		
35—45	6		·		1			
45—55	2							
55—65		2				1		
65 and upwards		1				1		
Totals	15	8	8	14	4	6		
	2:	3	2	2	1	0	-	0
1937 Totals	-	12	7	14	9	7	_	1
	20)	2	1	10	6		I
1936 Totals	11	7	4	4	6	3	2	1
1005 -	1		8		9			3
1935 Totals	9	6	3	10	6	4	0	2
1024 Totals	15			3	1		-	2
1934 Totals	6	5	11	9	2	8		
	11	-		0	10	0		

TUBERCULOSIS, 1938.

No action has been necessary for wilful neglect or refusal to notify, notification on the whole being efficient.

The following is a list of occupations, if any, followed by patients notified during 1938:—

			Pulmonary	Non- Pulmonary
Clerk	 	 	1	
Chemist's Assistant	 	 	1	
Cotton Operatives	 	 	2	
Labourers	 	 	3	
Housewives	 	 	2	
Infants	 	 		6
Fibre Worker	 	 	1	
School	 	 		10
Grocer's Assistant	 	 		1
Cinema Attendant	 	 		1
Slipper Operatives	 	 	10	2
Lacer	 	 		1
Sewer	 	 		-1
				_
			20	22

General.

There is a disinfecting and cleansing station where verminous persons and their belongings can be disinfected, also cases of scabies in school children may have baths, etc. There is also a bath at the School Clinic.

At York Place, Manchester, 124 Diphtheria swabs were examined, and 2 Tests for Enteric Fever were carried out. Arrangements have been made for examination if required of swabs from cases of Puerperal Pyrexia.

The Borough Analyst's report upon the town's water supply showed it was pure and had no plumbo-solvent action.

Maternity and Child Wélfare.

One hundred and forty-eight women made 200 attendances at the Ante-Natal Clinic, thus taxing our accommodation to the uttermost, but the patients appeared to appreciate the services rendered very much indeed, which is a very satisfactory feature.

Dr. Newton is available through any of the local practitioners for cases of abnormal confinement. The Infantile Mortality Rate for the year was 49 deaths per 1,000 live births, against 60 for 1937. The births were 291 against 247 for 1937. There were 26 Stillbirths for 1938 against 7 for 1937.

There were 13 deaths of infants under 1 year of age compared with 15 for the year 1937.

The Milk (Mother and Children) Order, 1919, has been carried out according to the Ministry of Health Scale.

Measles, Whooping Cough, Epidemic Diarrhœa and Pemphigus Neonatorum are visited by the Health Visitor.

89 mothers were confined at Moorlands Maternity Home against 77 in 1937. 32 mothers confined in other hospitals or nursing homes outside the district. Total 121.

Dr. A. Callam, of Burnley, is the Consultant for Puerperal Pyrexia cases, and is available through the Medical Officer of Health.

Maternal deaths are investigated by Dr. Hall, the County Medical Officer of Health.

Visits paid by Health Visitor during the year 1938 :--

To Expectant Mothers	64
,, Infants under 1 year first visits	291
., ,, ,, total visits	800
,, Children 1-5 years total visits	980
Visits re Still Births	26
Ophthalmia Neonatorum cases	
visited	5
Puerperal Pyrexia cases visited	1
Whooping Cough cases visited	9
Measles cases visited	7
Pemphigus Neonastorum cases	
visited	4

The Maternity Centre was open 50 times when mothers and guardians made 3,040 attendances and children 3,066.

Orthopædic Clinic held at Rawtenstall.

: following Table shows the number of Bacup children, of school age, who ended the Orthopædic Clinic for treatment during year ended Dec. 31, 1938

		Atten	dances	
Age Yrs.	Diagnosis	Surg'ns Clinic	Ordin- ary Clinic	School
7	Claw Feet	1	1	Mount
11	Old Infantile Paralysis	3	1	St. Joseph's
6	Acute A.P.M. Left Foot and Leg	1	1	Sharneyford
9	Anterior Poliomyelitis Left Leg	3	2	St. Mary's
14	С. Д. Н.	1	1	Left School
10	Crushed Foot	2	1	Britannia
6	Infantile Paralysis	10	7	Mount
6	Infantile Hemiplegia	t	1	Western
9	Birth Palsy	1	1	Central
5	Old Rickets	1	1	Central
5	Curling of 5th Toe	1	-	Tunstead
12	Curling of 4th Toe	-	2	St. Joseph's
13	Still's Disease	2	-	Mount
12	Genu Varum	1	-	St. Mary's
12	Genu Varum	1	1	Western
6	Torticollis	1	-	Tunstead
13	Tesion of Right Peroneal Nerve	5	6	Mount
9	Prominent Metatarsal	1	-	Western
14	Fracture Hip	3	1	Western
7	Old Rickets	1	1	St. Mary's
15				
		1		

Total Attendances... 40 28

Five of the above cases received treatment at the Biddulph Orthopædic Clinic during the year. List of Bacup children under school age who attended the Clinic during the year 1938 :--

			Atten	dances
Sex	Age	Diagnosis	Surgeon's Day	Ordinary Clinic
М	2	Rt. Talipes	12	32
М	1	Lt. Club Foot	4	8
F	$2\frac{7}{12}$	Multiple Cong. Deformities	4	2
F	$1\frac{4}{12}$	Rickets	1	1
М	2	Mild Varus	1	1
М	$1\frac{8}{12}$	Genu Varum	2	1
М	$2^{\underline{10}}_{\underline{12}}$	C.T.E. Varus	2	1
F	1 mth.	Mild Club Foot	6	14
F	1	Active Rickets ,	1	1
F	1	Active Rickets	2	-
М	$2\frac{6}{12}$	Varus Feet	1	-
М	3	Injury to Finger	1	1
		Total	37	62

Maternity and Child Welfare Return.

Total 37

62

Factories and Other Premises.

1.—INSPECTION OF FACTORIES AND OTHER PREMISES.

Including Inspections made by Sanitary Inspectors.

Premises.	Number of				
	Inspections	Written Notices	Occupiers prosecuted		
Factories	4	4			
Factories	26				
Other Premises (other than Outworkers' premises)	2				
Total	32	4			

2.—DEFECTS FOUND IN FACTORIES AND OTHER PREMISES.

Particulars.	Ńu	Number of offences in respect to		
Nuisances under the Public Health Acts :—	Found	Remedied.	Referred to H.M. Inspector.	which Prose- cutions were instituted.
Want of cleanliness	4	4		
Other Nuisances				
Sanitary accommo- dation :—				
Insufficient	1	1		
Unsuitable or Defective Not separate for	4	4		
sexes				
Total	9	9		

24

List of Acts Promoted by and of those Adopted by the Corporation of Bacup.

Public Health Acts Amendment Act (Various Sections)	1890
Local Government Boards Provisional Orders Con-	
firmation (No. 7 Act)	1890
do. do. (No. 10 Act)	1890
Bacup Corporation Water Act L. G. B.'s Provisional Orders Confirmation Act	1894
(No. 19 Act)	1897
Bacup Corporation Water Act	1898
do. Act	1906
Public Health Acts Amendment Act Sections 18, 21, 28, 31 & 33 of Part II. Section 35, Part IV.	1907
L. G. B.'s Provisional Orders Confirmation Act (No. 4) Act	1912
L. G. B.'s Provisional Orders Confirmation Act (No. 16) Act	1913
L. G. B.'s Provisional Orders Confirmation Act (No. 3) Act	1919
Public Health Act Part II. Sections 13 to 35 (except 20).	1925

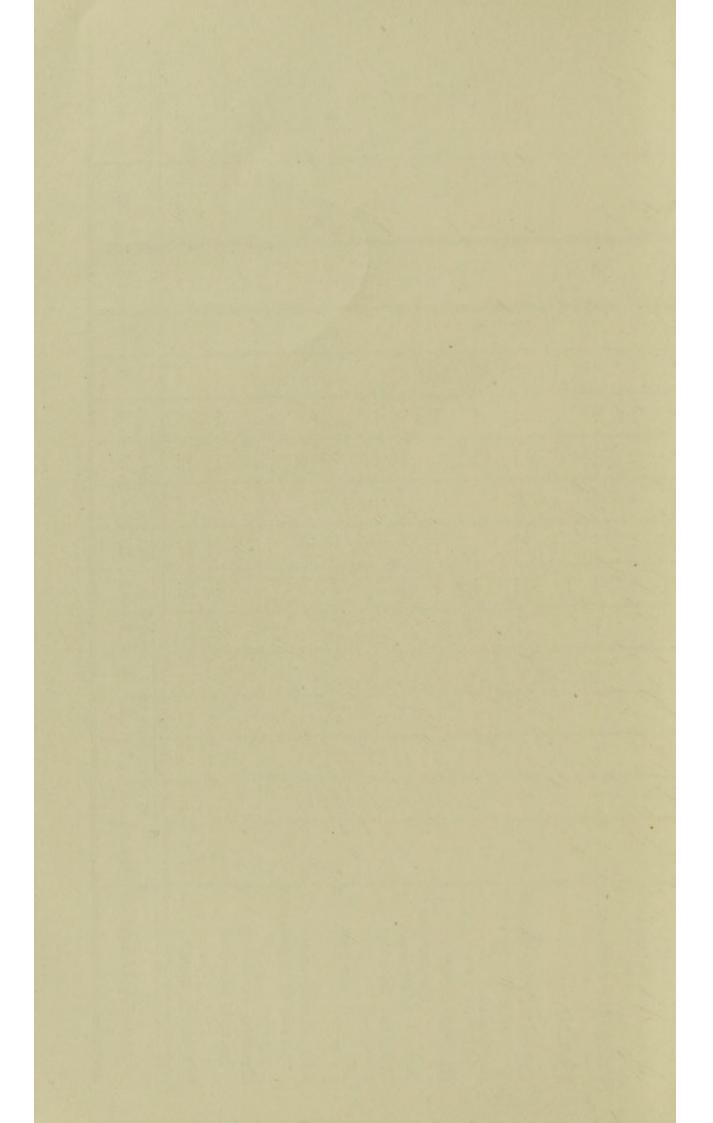
INFECTIOUS DISEASES

INFECTIOUS DISEASES.

Number of cases of infectious diseases notified, number of deaths from these diseases, number of cases removed to hospital, and deaths in hospital during the year 1938.

	-				CA	CASES N	NOTIFIED.	ED.							но	Hospital
Disease	Total						YEARS	RS						Total	H	
UISEASE.	at all Ages notified Under	Under 1	1-2	2-3	3-4	4-5	5- 10	10- 15	15- 20	20- 35	35-	45- 65	65 and over	Deaths	Lotal Cases removed to Hospital	Deaths in Hospital of persons belonging to district
Smallpox	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Scarlet Fever	23	:	:	2	2	3	14	2	:	:	:	:	:	:	:	3
Diphtheria and Membranous Croup	58	:	1	:	:	4	26	17	3	9	1	:	:	3	53	3
Enteric Fever (includ- ing paratyphoid)	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Acute Primary Pneumonia Acute Influenzal Pneumonia	14	:	:	:	-	:		-	-	5	0	0	5	6	:	L
Puerperal Fever	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	::
Puerneral Pyrexia	-									-						

Acute poliomyelitis	:	:	:	:	;	:	:	:	:	;	:	:	:	:		:
Acute polio-encephalitis	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Encephalitis lethargica	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	
Dysentery	:	:	:	:	:	:		:	:	:	:	:	;	:	:	
Ophthalm. Neonatorum	ິ	5	:	:	:	:	:	:	:	:	:	:	:	:	:	
Erysipelas	11	:	:	:	:	:	:	:	:	ŝ	:	2	3	1	:	
Anthrax	-	:	:	:	:	:	:	:	:	1	:	.:	:	:	1	
In this Malaria country	:	:	:	:	£ •	:	:	:	:	:	:	:	:	:	:	:
(Abroad	:	:	:	.:	:	:	:	:	:	:	:	:	:	:	:	:
Any other diseases notifiable in district,																
e.g. :— Measles, excluding german measles …	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
Whooping cough	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
TOTALS	113	2	1	61	3	2	41	20	4	13	4	∞	Q	13	55	4



Borough



of Bacup

Annual Report

OF THE

Sanitary Inspector

Arthur E. Barnes

A.R.S.I., M.I.P.C., M.S.I.A., Cert. R.I.P.H., Honours Cert. Plumbing, Hygiene, &c.

For the Year ending December 31, 1938

BACUP : Bacup Times, Ltd., King Street, Bacup

Sanitary Inspector's Office, Rochdale Road, Bacup,

April, 1939.

To His Worship the Mayor, Aldermen and Burgesses of the Borough of Bacup.

Mr. Mayor, Ladies and Gentlemen,

I beg to submit my Annual Report of the work done by the Sanitary Department during the year 1938.

Summary of Work.

Visits and Re-Visits to Houses	2262
Notices and Letters served	714
Factory Inspections	32
Workshop Inspections	34
Workplace Inspections	2
Cowshed Inspections	23
Slaughter-house and Offensive Trade	
Inspections	584
Complaints received	52
Houses Disinfected	93
Cloths disinfected for export and	
Certificates given-	
Cwts	16
Bags	46
Bales	810
Drains Tested	8
Visits to Fried Fish Shops	
Visits to Infected Houses	83
Dustbins sold and delivered	527
	2615
	100
,, ,, -Nightsoil Loads .	
	28
No. of Pails Emptied	
Samples of Milk taken	
Samples of Water taken	2

221 Inspections were made under the Housing Act, 1936.

During the year 52 complaints were received and investigated. The conditions revealed on inspection showed that most of these were justified. In some cases no nuisance was found.

Frequent inspections have been made of premises, vehicles and shops where food was prepared or kept for sale; also the Market has been visited twice weekly. The following quantities of unsound food were destroyed : --

2 Beasts.
 15 Beast Heads.
 1,056 lbs. Beef.
 30 Beast Livers.
 63 Beast Kidneys.
 22 Beast Tongues.
 9 Beast Hearts.
 3 Sheep.
 8 Sheep Livers.
 1 Sheep Kidney.
 1 Lamb.
 1 Calf.
 33 Lots Internal Organs.
 7 Udders.

CARCASES INSPECTED AND CONDEMNED.

	Cattle (excl. cows)	Cows	Calves	Sheep and Lambs	Pigs
Number inspected	430	221	40	1633	94
All diseases except Tuberculosis-					
Whole carcases condemned	1	1	3	1	
Carcases of which some part or organ was condemned	8	25	2	11	2
Percentage of the number inspected affected with disease other than tuberculosis	2.09	11.76	7.5	.86	2.13
Tuberculosis only-					
Whole carcases condemned		2			
Carcases of which some part or organ was condemned	12	96	2		
Percentage of the number inspected affected with tuberculosis	2.8	44.3	5		

Slaughter-Houses.

We have thirteen Licensed Slaughter-houses situate in different parts of the Borough, all of which are regularly inspected and conducted satisfactorily.

Meat Regulations.

All the Butchers' shops in our Borough, with the exception of one, are situated on the main road, and with the traffic this makes it imperative that the shop windows attached to these premises should be closed to prevent mud, filth or any other contaminative substance being splashed or blown thereon.

Offensive Trades.

Number on Register—Tripe Boilers 2 ,, ,, ,, Fat Melter 1

These premises have been regularly inspected and the Bye-laws adhered to.

Fried Fish Shops.

There are forty-two in the Borough for the sale of fried fish and chip potatoes. Provided good and sound materials are used and the cooking carried out in a satisfactory manner no objection can be taken to these places.

Smoke Observations.

I have made several inspections of boiler houses and drawn the attention of the firemen to the emission of smoke.

No statutory action was necessary during the year under review.

Factories Act, 1937.

We have 69 Factories in our Register. Thirty-two visits have been made under the above Act. Several defects were noted and improvements effected. Four notices were serviced, viz.:—For want of cleanliness, 4; insufficient sanitary accommodation, 4; other nuisances, 1. In five cases the owners' or occupiers' attention was drawn to the defects or contraventions observed. Two inspections have been made to Outworkers' Premises.

Milk and Dairies Order, 1926.

We have on our Register 91 Cowkeepers and Milksellers. During the year 23 inspections were made. Some farmers supply milk in our Borough from adjoining districts. Special attention has been given to the cleansing and grooming of cows. More overalls are being provided for the use of Milkers, and greater care is being taken during the process of Milking so as to produce a clean milk. During the year several improvements have been effected at our farms by the provision of additional lights, ventilation, new floors, milkstores and paving of yards.

Rats and Mice Destruction Act, 1919.

Eight baits have been supplied free for the destruction of rats and mice to persons applying for same. In several cases we visited the places complained about, advising certain works which proved effective. These vermin are a menace to public health as well as being destructive.

Food and Drugs Adulteration Act, 1928.

Twelve samples of milk were taken and submitted to the Analyst, and after analysis, all were certified genuine, the vendors being notified.

Infectious Diseases.

Eighty-three visits were made to infected houses, enquiries made as to the cause or origin of the disease, leaflet of instructions given with regard to isolation of the infected person and disinfection of the infected articles, etc., connected with the disease. Sanitary pails, disinfectants and carbolised oil are supplied free. In case the infected person was a child attending school, the school authorities were informed and instructions given to keep all children from school until the Medical Attendant certified the children to be free from infection.

Ninety-three Houses were disinfected. Houses in which there were tubercular diseases were visited and an offer made to disinfect. On request from the owners or occupiers any infected material is destroyed by our own men. 62 lots of bedding have been destroyed on such request during the year; in each case I endeavour to have this request in writing. Other articles are either disinfected in the bedroom with formic aldehyde gas or removed to the steam disinfector. Also 81 books from our various Libraries were taken charge of and disinfected and returned to their respective owners before being put into circulation.

Housing Act, 1936.

One Public Inquiry has been held during the year by an Inspector from the Ministry of Health relating to thirteen Clearance Areas, and two Compulsory Purchase Orders, namely ;—

Carr Lane Clearance Area: 3 houses. Clarence Street Clearance Area: 9 houses. Cliff Street Clearance Area: 9 houses. Heightside Cottages Clearance Area: 11 houses. Hempsteads Clearance Area: 2 houses.
Higher Cross Row Clearance Area: 23 houses.
Jane Street Clearance Area: 5 houses.
Lane Fold Clearance Area: 6 houses.
Moss Street Clearance Area: 17 houses.
Rockcliffe Place Clearance Area: 7 houses.
Star Bank Clearance Area: 2 houses.
Stott Street Clearance Area: 2 houses.
Underwood Clearance Area: 38 houses (including 3 houses and shops and 1 lock-up shop).

Lodge Lane Compulsory Purchase Order, 3 houses; Moss Gap Compulsory Purchase Order, 10 houses. Demolition Orders were confirmed by the ministry for the whole of these properties.

Thirty-seven houses have been dealt with to render them fit for occupation in consequence of Informal Action. Four other houses have been dealt with for Individual Closure.

Much progress has been made during the year in the removal of tenants from the Clearance Areas to the Corporation Housing Estates.

All the furniture, bedding and effects are inspected and are disinfested prior to their removal.

The furniture and effects were disinfested with hydrocyanic acid gas in special air-tight vans. The bedding was steam disinfected at the Town's Disinfector under the supervision of the Sanitary Staff.

During the year the effects of forty-one families have been disinfested.

Twenty-three houses have been disinfested prior to their demolition.

. Several lots of furniture and parcels of bedding, after inspection and with the consent of the owner, were destroyed and replaced by the owners at their own expense.

Accommodation is provided at our own Cleansing Station whereby any tenant or their family removed from a Clearance Area can have a free bath.

Housing Act, 1936-Overcrowding.

No. of dwellings overcrowded at the end	
of the year	69
No. of families dwelling therein	70
No. of persons dwelling therein	441
No. of new cases of overcrowding reported	
during the year	
No. of cases of overcrowding relieved during	
the year	44
No. of persons concerned in such cases	239
No. of cases of overcrowding in houses owned by the Local Authority which have been	
relieved during 1938	1
No. of cases of overcrowding which have been relieved in the course of Slum Clearance	
operations	12
Particulars of any cases in which dwelling	
houses have again become overcrowded	
after the Local Authority have taken steps for the abatement of overcrowding	None.

Eradication of Bed Bugs.

No. of Council	houses found	to be infested	1
No. of other	do.	do.	3
No. of houses	disinfected		4

Methods employed for freeing infested houses from bed bugs:

Is work of disinfestation carried out by Local Authority or by a contractor?:

Methods employed for ensuring that the belongings of tenants are free from vermin before removal to Council houses: Hydrocyanic acid gas, Cimex, Fumoid and Formalin Spraying.

Hydrocyanic acid gas by contractor. Cimex, Fumoid, spraying and steam disinfecting by Local Authority.

Previous to removal into the Council houses all furniture and effects are disinfested with hydrocyanic acid gas in special air-tight vans. All bedding is steam disinfected. Occupiers use a clean supply of underclothing and have their spare underclothing steam disinfected. If the tenants desired. are allowed free baths at our own cleansing station.

Measures are taken by way of supervision or education of tenants to prevent infestation or re-infestation after cleansing.

Health Week.

During October, 1938, four lectures were given dealing with Public Health and Social Science Education.

The various lectures were as follows:—"Health in Youth and Middle Age," by Miss Cecile A. Rhodes, S.R.N., C.S.M.M.G., M.E.; "Food for the Family" or "Much in Little," by Miss Cecile A. Rhodes; "Some Notes on Meat and Food Inspection," illustrated by Sound and Morbid Specimens, by Mr. A. E. Barnes, A.R.S.I., M.I.P.C., M.S.I.A., Cert. R.I.P.H.; "Why Don't You Drink Milk," followed by a Film Demonstration on "Nutrition," by Miss Creenan, N.D.D.

Cleansing Department.

The collection of domestic and trade refuse is done by two S.D. Freighters fully employed on this work. These waggons, the S.D. Freighters, have up to the present given every satisfaction. In dealing with the collection of refuse certain governing factors have to be taken into consideration; towns cannot be judged from the same standpoint. The removal of trade refuse brings in a revenue of over £100 per annum which barely covers the cost, but is of great service to the various tradesmen. Refuse is removed systematically and disposed of; thus preventing it accumulating at the various premises and becoming a nuisance. Little objection was taken to the charges made for trade refuse removal; and it is difficult to dispose of, being material which creates nuisance on our tips, and has in many cases to be disposed of by burning. Tradesmen and householders could greatly assist in this work if they would burn as much waste paper as possible or otherwise make into bundles so as to save time in removal and disposal. I am pleased to say that in several cases this is being done.

We have a few places in the Borough where it is not practicable to get with our motors and for which we occasionally engage a horse and cart. All the refuse collected is disposed of by controlled tipping on land. I have carefully examined the refuse collected, and find that a great quantity is useable or saleable material which should be disposed of at home. I estimate that a great portion of our refuse is cinders which if sifted and used again would be worth at least sixpence per hundred-weight. We are yet removing too great a quantity of refuse, which entails a two-fold loss to the ratepayers. During the year a notice has again been posted inside the lid of each dustbin sold by us drawing the occupier's attention to this waste; this, along with our small bin, has proved an educational factor in the reduction of refuse. Temporary arrangements are used on our tips by which waste paper, bedding and mattresses can be burned. This has helped us to get rid of large quantities of surplus material unsuitable for tip purposes.

During the year the sale of dust-bins has been continued; we have sold and delivered 527. The owners of property find it is to their advantage to dispense with ashpits, boxes, etc., and provide up-to-date dust-bins. Dust-bins are being generally adopted and a sanitary improvement effected and the work of refuse removal greatly facilitated. There is some difficulty experienced in several of our houses by lack of provision for any place outside the premises to store the bin. During the year the smaller bin which was adopted for the back-to-back houses has given every satisfaction and has proved of great service in the reduction of refuse.

Cleansing Costs.

This year cleansing cost returns have again been required by the Ministry of Health, a copy of which is shewn overleaf.

The following are the number of the various types of closets, ashpits, etc., in the Borough (these do not include isolated houses or several of our farm houses in the outlying districts which are attended to by the occupiers themselves).

Fixed middens or cess	pools	 	 	4
Fixed ashpits		 	 	7
Dustbins		 	 	6620
Fresh Water Closets		 	 	4311
Pail Closets		 	 	164
Waste Water Closets		 	 	428

Your Inspector gratefully recognises the valuable assistance he has received from the Chairman-Mr. Alderman E. Gledhill, the Vice-Chairman-Mr. Councillor J. H. Hargreaves, Members of the Health Committee, and the staff of the Public Health Department during the year.

I am Gentlemen,

Your obedient Servant,

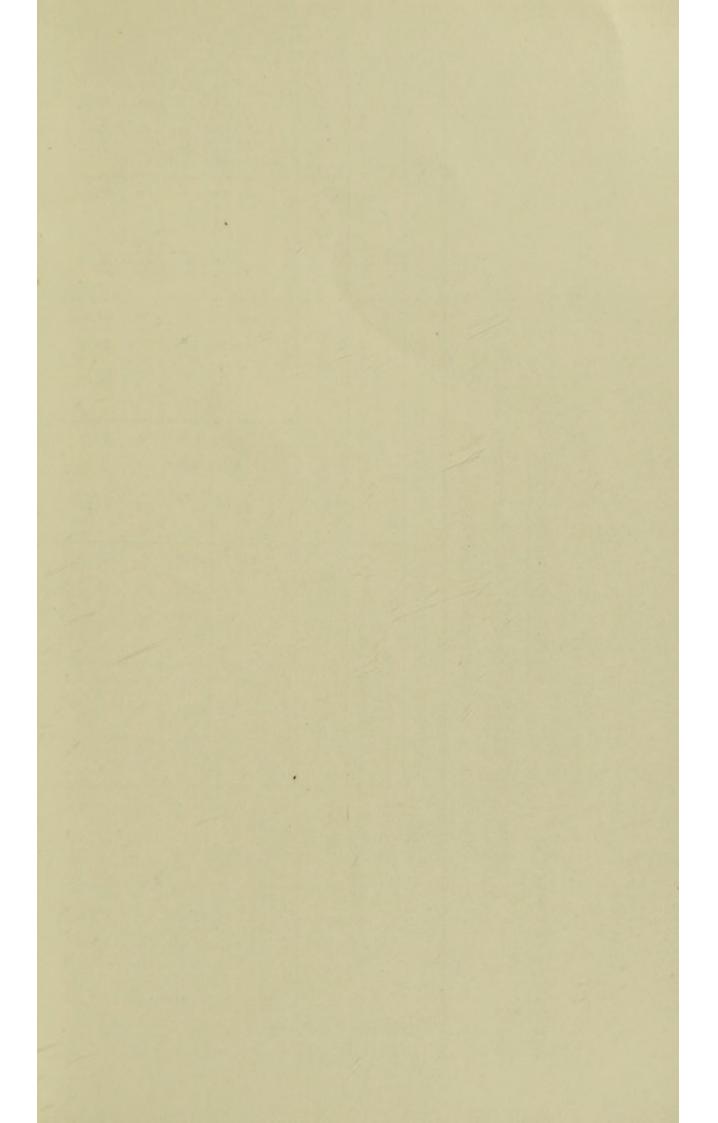
ARTHUR E. BARNES.

A.M.R.S.I. Cert. R.I.P.H., Mem. Ins. of Public Cleansing: Hons. Plumbing, Hygiene,

Chief Sanitary Inspector and Director of Cleansing.

0
~
0.0
939
-
-
Œ
0
MARCH
E L
-
-
2
-
+
00
-
-
60
rh
0
5
×.
-
0
0
-
1
-
R ENDING 31st 1
_
N
-
-
4
[7]
N
YEAR
N
0
0
FOR
-
n
0,
-
S
~
COSTS
-
0
0
0
7
2
-
rn
01
7
K
1
4
CLEANSING
-
. 1
-
()
-
IT.
-
0
0
10
0)
. 1
I
I
1
4
H
2.2
1
-
0
-

ACTUAL EXPENDITURE	œ ţ	409 2 4	6 2 0 372 18 0 8 9 5 6 13 6	2110 19 6	115 5 11 2 10 0 20 6 6	138 2 5	1972 17 1
DRY REFUSE AND NIGHTSOIL	CollEction & Disposal— Expenditure. Wages of Drivers	Motor — Repairs 103 8 6 Insurances 103 8 6 Licences 70 11 0 Spirit, Oil, &c. 174 13 10 Rent of Garage 50 0 0	Team Labour	Gross Expenditure	Income. Removal of Trade Refuse Tipping Dues Sale of Dust Bins	Gross Income	Net Expenditure



BOROUGH OF BACUP.

CLEANSING SERVICE.

DETAILS OF CLEANSING COSTS for Year ending 31st March, 1939.

HOUSE AND TRADE REFUSE.

		REFUSE CO	REFUSE COLLECTION	REFUSE DISPOSAL	JISPOSAL	TOTAL	CAL
Item	PARTICULARS.	Depred or Loan	Depreciation or Loan Charges	Depreciation or Loan Charges	Depreciation Loan Charges	Depreciation or Loan Charges	Depreciation Loan Charges
(1)		Included	Excluded	Included	Excluded	Included	Excluded
	REVENUE ACCOUNT.						
A	Gross Expenditure	£ s. d. 1673 15 2	£ s. d. 1623 15 2	£ s. d. 437 4 4	£ s. d. 424 14 4	£ s. d. 2110 19 6	£ s. d. 2048 9 6
В	Gross Income	135 12 5	135 12 5	2 10 0	2 10 0	138 2 5	138 2 5
c	Net cost	1538 2 9	1488 2 9	434 14 4	422 4 4	1972 17 1	1910 7 1
	Less Nightsoil	85 0 0	85 0 0	25 0 0	25 0 0	110 0 0	110 0 0
	Unit Cost						
D	Gross Expenditure per ton	s. d. 7 6.00	s. d. 7 3.30	s. d. 1 11.5	s. d. 1 10.80	s. d. 9 5.5	s. d. 9 2.1

07 1	74.1	6.68	9 q.	0												
		00	s co	000 10												
			£ 97	906	24											
01 7	74.	.08	d.	9 10				es								
		8 10.08	7.°		ons	suo		acr	ts.			27		- 6.		
1		~	£ 100	308	4465 tons	4465 tons	19,660	6,121 acres	L5 cwts.	6,400	1 mile	£86,877	£330	£ - 15 - 6.	100% 2	100%
13	2	67	9.9	c			-	-	12 .4	-	-	-	46	46	5 1(
	•	10.67	.s.	0	:	:	:	÷	~	:	;	:	:	:	: :	:
		1	£ 21	99			******									
13		37	3 d.	c	p				v							
	•	11.37	5°.	c	ecte	:		-	da	:		:				
1		-	£	0 0 89	Coll		-	-	per		:	-		:		
					Weighings) Collected		-		ion				-			
7.29		8.01	d.	0	hing	:	:	:	ulat	: :						
-	1	œ	8. 13	10	Veig		1938		dod	nise	-	:	:	:		:
		9	£ 75	32	t V	:	19		00	Prei		:		-	s	:
_		1		240 6 3 232 10 0	(Tes	l of	ner,		1,0	pu		-	ate		of Collection Motor Transport Mechanical vehicles	of Disposal- Controlled Tipping
7.29		.71	9	00	su	osec	umi		per	s a	hau	÷	ny 1	æ	nsp(nsp(Tip
-		6 10.71	s. 4	9	to	disp	idst	-	r.)	ouse	of	:	pen	the	Tra	spos
1		•	£ 78	240	i i	ise (; M	-	CW	Ĥ	ngth	alue	я	.ш.	Co	Dis
:	1	:	:		fus	Total Refuse disposed of	Population ; Midsummer,	÷	Weight (in cwt.) per 1,000 population per day	Number of Houses and Premises	Average length of haul	Ratable Value	Product of a penny rate	Total rates in the £	Method of Collection Motor Transp Mechanical vel	Method of Disposal- Controlled Ti
per ton				et cost, per 1,000 uses or premises om which refuse collected	tal	tal	pula	ca	eigh	mbe	erag	tabl	onpo	al 1	thoc	thoe
		-	00	000 ses se	To	To	Po	Area	W	Nu	Ave	Ra	Pro	Tot	Me	Me
-		ton	1,0(on	r 1, emi	1.	5	3.	4.	5.	9.	2.	8.	9.	10.		
On.		Net cost, per ton	Net cost per 1,000 population	Net cost, per 1,000 houses or premises from which refuse is collected										-	-	
ber t		ost,	ost	s of whi												
_	-	et c	et c	et c ouse om col												
		Z	Z	ho frc is												
	-	ц	Ð	H												

I

