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County Borough of Ibalifar Ibealth Department

Annual Report

ON THE HEALTH OF THE BOROUGH Fo'r the Year 1937

GEORGE C. F. ROE, M.R.C.P., L.R.C.S., L.M., D.P.H., D.P.M. Medical Officer of Health





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County Borough of Idalifar Idealth Department

Annual Report

ON THE HEALTH OF THE BOROUGH For the Year 1937

GEORGE C. F. ROE, M.R.C.P., L.R.C.S., L.M., D.P.H., D.P.M. Medical Officer of Health

Ibealth Committee

(as on Dec. 31st, 1937).

Mayor - ALDERMAN FRANK WATKINSON, J.P.

COUNCILLOR L. CHAMBERS Chairman. COUNCILLOR A. MUFF, Vice-Chairman.

Ald. E. MIDGLEY.	Coun. G	. H. BUTTERS.
" T. HEY, J.P.		S. SHARP, J.P.
" A. WALTERS, J.P.	" (. H. NORMANTON.
Coun, M. I. STEAD.	" J	. ODDY.
" W. D. WADSWORTH.	,, A	. ODDY. WAIGHT,
" J. LATHAM.	,, F	I. RHODES.
Coun. J.	NICHOLL.	

Sub=Committees

Appointed by the Health Committee.

Bealth Sernices Sub-Committee

health Services	Sub-Committe	ee.
THE CHAIRMAN.	COUNCILLOR	NORMANTON.
VICE-CHAIRMAN.		ODDY.
THE CHAIRMAN. VICE-CHAIRMAN. COUNCILLOR NICHOLL.		RHODES.
Councillo	OR STEAD.	
Fospitals SI	ib-Committee.	
		DUTTEDC
VICE-CHAIRMAN.	COUNCILLOR	CUADD
A TYPEY	"	WADEWODTH
WALTEDS	22 22	LATHAM
" WALTERS. " MIDGLEY.	,,	WALCHT
	>>	SHARP. WADSWORTH. LATHAM. WAIGHT.
Accounts Su	h. CAMAMAITTAA	
THE CHAIRMAN.	Councillor	ODDY.
VICE-CHAIRMAN.	>>	RHODES.
VICE-CHAIRMAN. COUNCILLOR WADSWORTH.	,,	NORMANTON.
Toint Recovery	Sub-Committe	e.
ALDERMAN HEY. COUNCILLOR WAIGHT.	COUNCILLOR	BUTTERS
COUNCILLOR WAIGHT		CHAMBERS.
" STEAD.	"	WADSWORTH.
maternity and Child	and the second	
The Health Committee with the	Mpa LAW	Members :
MRS. J. SIIKK.	MRS. LAVI	NIA LUMB.
MRS. J. STIRK. MRS. E. WHITAKER. MRS. E. E. ROTHERA.	MISS FLOR	ENCE WHILLEY.
MRS. E. E. KOTHERA. MRS. E. M. I	MRS. MAKY	E. WILLIAMSON.
Committee for the Care	of the mental	ly Defective.
COUNCILLOR L. CHAMBERS (Chairman). COUNCILLOR G. H. BUTTERS.	ALDERMAN .	E. SMITH, J.P.
(Chairman).	COUNCILLOR	J. W. ALDAM.
COUNCILLOR G. H. BUTTERS.	"	W. H. R. SKEMP.
(Vice-Chairman).	MR. E. HA	RRISON.
ALDERMAN M. LIGHTOWLER,	MRS. B. DF	RACUP.
J.P.	MRS. A. SN	IITH, J.P.
Mrs. E. 7	OWNEND.	
Welfare of the Bl	ind Sub-Comm	ittee.
THE CHAIRMAN. VICE-CHAIRMAN.	COUNCILLOR	
Companyo		

COUNCILLOR WAIGHT.

Staff of the Ibealth Department

(as on Dec. 31st, 1937).

medical Officer of Health.

GEORGE C. F. ROE, M.R.C.P., L.R.C.S., L.M., D.P.H., D.P.M.

Assistant Medical Officers of health.

*WILFRID SMITH, M.Sc., M.B., B.Ch., B.A.O., Clinical Tuberculosis Officer and Resident Medical Officer, Sanatorium.

*MARGARET M. McDOWALL, M.B., Ch.B., D.P.H., M.C.O.G. Medical Officer to Maternity and Child Welfare Centre.

*F. W. WATERWORTH, M.B., Ch.B., D.P.H., Assistant School Medical Officer.

S. CARTER, M.D., B.Hy., D.P.H., Resident Medical Officer, Isolation Hospital.

Medical Staff, The Halifax General Hospital.

H. I. DEITCH, M.S. (Lond.), F.R.C.S., Medical Superintendent. ALAN CURTIS, M.B., Ch.B., F.R.C.S. (Ed.), Deputy Medical Superintendent.

C. L. DAVIDSON, M.B., Ch.B., Junior House Surgeon.

J. J. RUSSELL, M.B., B.Ch., B.A.O., Junior House Surgeon.

Part Cime Medical Officers.

R. W. HENDRY, M.B., F.R.C.S.(E.), Venereal Diseases Clinic.

H. V. PHELON, M.R.C.P., Venereal Diseases Clinic.

F. W. GOYDER, F.R.C.S. (Eng.), Orthopaedic Surgeon.

H. FRANKLYN, M.R.C.S., L.R.C.P., D.M.R.E., Radiologist.

- HARRY V. PHELON, M.R.C.P., Pathologist and Bacteriologist.
- D. W. HEYNEMANN, M.B., Ch.B., Assistant School Medical Officer.

W. MACADAM, M.A., M.D., F.R.C.P., Consulting Physician.

E. R. FLINT, F.R.C.S. (Eng.), Consulting Surgeon.

W. O. LODGE, F.R.C.S., Consulting Ophthalmic Surgeon.

R. W. GREATOREX, M.B., Ch.B., Consulting Ophthalmic Surgeon.B. L. JEAFFRESON, M.D., F.R.C.S., L.R.C.P., M.C.O.G., Consulting Obstetrician.

Public Uaccinators.

A. GARVIE, M.D.	J. J. MURPHY, M.B., Ch.B.
J. MORRISON, M.B.	P. MILNES, L.R.C.P., L.R.C.S.
R. DAVIDSON, M.B., Ch.B.	C. S. OGILVY, L.R.C.P.,
H. W. MORCK, M.R.C.S., L.R.	C.P. L.R.C.S.

District Medical Officers.

A. GARVIE, M.D. J. MORRISON, M.B. R. DAVIDSON, M.B., Ch.B. V. C. MEYER, M.B., Ch.B. W. R. THOMPSON, L.R.C.P., L.R.C.S.

D. G. KENNEDY, M.B., B.Ch., G. C. SHARP, M.B., Ch.B. B.A.O. C. S. OGILVY, L.R.C.P.,

L.R.C.S.

Ueterinary and Meat Inspector.

J. POLLARD, M.R.C.V.S., D.V.S.M. (Vict.)

oJ. FLANAGAN, Assistant Meat Inspector.

Sanitary Inspectors.

‡J. W. BEAUMONT, Chief Sanitary Inspector.
†F. TEAL, District Sanitary Inspector.
†J. G. WALSHAW "
†E. WILSON "

†H. LEAPER
a‡H. MARGERISON, Housing Inspector.
oF. BURTON, Housing Inspector.
T. FEARNLEY, Shops' Inspector.

Clerical Staff.

†C. CARLTON, Chief Clerk.

Clerks-H. WRIGHT. H. CARLTON. A. CLEGG. N. BRADLEY.

MISS M. CHOWN.

T. K. BOOTHMAN.

G. WALSHAW.

Uaccination Officer.

Visitor Mental Deficiency Acts. Boarding Out Order (Children under 5). Children & Young Persons Act (Part V.). MISS E. CLARKSON.

Maternity and Child Welfare. Bealth Uisitors.

x§*MISS E. R. ORAM, Senior Health Visitor. *E. MARSHALL. x§*O. WILSON. x§*S. BRIGGS. §*M. MOORE. x§*N. DINGSDALE.

Cuberculosis Uisitor : *xH. DUKES.

Matron, Isolation Hospital: F. WILSON.

Matron, Sanatorium: *W. DAVIDSON.

Removal Officer : W. P. SHARP.

Public Analyst: H. T. LEA, B.Sc. (Hons.), M.Sc., F.I.C.

Che Halifax General Hospital.

Steward : A. WHEELDON.

Assistant Steward : H. E. KEETON.

Matron : E. A. WOODWARD.

Admission Officer : L. WATSON.

Clerks-E. DJXON. H. V. WILKINSON. MISS D. RILEY.

*Salary contributed to, under Public Health Acts or by Exchequer Grants.

†Certificate Sanitary Inspector, Royal Sanitary Institute.

Royal Sanitary Institute Certificates as Sanitary Institute. and other Foods Inspector, and Sanitary Science as applied to Buildings and Public Works.

SCertificate Central Midwives Board.

xHealth Visitors' Certificate. oRoyal Sanitary Institute Certificate as Sanitary Inspector and Inspector of Meat and other Foods.

aRoyal Sanitary Institute. Smoke Inspectors Certificate.

COUNTY BOROUGH OF HALIFAX.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH, FOR THE YEAR 1937.

INTRODUCTION.

To the Chairman and Members of the Health Committee.

Mr. Chairman, Madam and Gentlemen,

I have the honour to present herewith my Tenth Annual Report, being the sixty-fifth of the series, for the year ended December 31st, 1937.

* * * *

The Report is planned so that the details of any specific Section can be readily obtained.

* * * *

The contents have been compiled in compliance with Circular 1650 of the Ministry of Health.

* * * * In connection with our campaign—in conjunction with the National Campaign—to ensure that the local Public Health Services are fully understood, and adequately utilised by the citizens of Halifax, the following table sets out the work done up to the end of the year:—

(a)	Number of	Public Lectures given			9
(b)	,,	Booklets issued			4,000
(c)	"	Leaflets issued			20,000
(d)	,,	Bookmarks issued			20,000
(e)	,,	Large Posters displayed	d		100
(f)	"	Special Lectures given	at the	Μ.	
		& C.W. Centres			25

Period	Birthrate	Deathrate	Infant Mortality	Maternal Mortality	Population
1936	12.3	15.2	68	7.02	97,330
1937	12.8	14.3	63	2.39	97,490

Generally speaking it is among the more intelligent and skilled section of the community, that the birthrate shows the most marked decline.

* * * *

The following Table gives the record of Cases and Deaths, 1936-37, of the important Infectious Diseases:—

Disease	Cases		Deaths		Cases	Deaths	
Disease	1936	1937	1936	1937	1937	1937	
Diphtheria	206	164	12	5	Decline	Decline	
Scarlet Fever	136	162	0	0	Rise	-	
Enteric Fever	3	1	0	0	Decline	_	
Measles			7	1	—	Decline	
Pneumonia	91	128	74	77	Rise	Rise	
Cerebro Spinal Fever	2	4	2	5	Rise	Rise	
Poliomyelitis (Infantile Paralysis)	1	-	-	-	Decline	-	
Tuberculosis Resp	154	81	60	35	Decline	Decline	
Tuberculosis-	32	18	15	3	Decline	Decline	
Other Forms							
Smallpox	0	0	0	0	-	-	

(Measles not being notifiable the number of cases is not known).

The five principal causes of death at all ages were:-

					No.	of De	eaths
(1) Diseases of	the	Heart and	Circu	latory	1936.		1937.
System					563		575
(2) Cancer					193		178
(3) Pneumonia,	Bron	chitis and	Respi	ratory			
					114		132
(4) Tuberculosis	(all	forms)			75		38
		* * *	*				

The order shown in the above Table has remained the same for many years. The Table indicates the principal killing diseases.

*

*

*

In the period under review, 164 cases of Diphtheria were notified as compared with 206 in 1936. Facilities for gratuitous immunisation against diphtheria are available in the Borough.

*

During the year one case of Enteric Fever was notified. Enteric fever is almost always caused by some article of drink (especially water and/or milk) or food which has become infected by the dejecta of a "carrier" or a patient. It is very desirable that enteric "carriers" should be excluded from all trades concerned with the handling of food and drink. Milk is an excellent culture medium for disease germs and, that it may convey various types of infection is now well recognised. At Bournemouth, Poole and Christchurch in July-August, 1936, some 718 persons became infected with enteric fever conveyed by raw milk, and more than 50 died. At Doncaster in December, 1936, some 300 persons contracted scarlet fever conveyed by raw milk, and two died. The Public Health Department endeavours to see that consumers are provided with not only a clean milk, but also with a safe milk, that is, a milk free from pathogenic organisms.

* * * *

The object of the Psychiatric Clinic now in operation at the General Hospital, is to treat cases of nervous illnesses in order to prevent them reaching the stage when mental hospital treatment might become necessary. Cases are seen on the recommendation of their own doctors. Our statistics suggest a rise in mental diseases, but whether it is real or only apparent because of the greater attention now paid to nervous troubles, it is impossible to say.

* * * *

There was a small epidemic of Measles in November and December. Epidemics of measles occur usually every two years. This is due to the accumulation of susceptible persons. About 90 per cent. of deaths occur in children under five. The mortality is greatest in the first and second years of life. Both sexes are equally affected. Infection is spread mainly during the early stage, when diagnosis is doubtful. The Department has under consideration a scheme for the provision of a free supply of Immune Globulin to doctors, in order to secure for measles contacts and cases the benefit of temporary protection from or modification of attack. Measles is a serious disease. More children under 15 die each year from measles than from scarlet fever.

* * * *

The outstanding event in connection with the Public Health Service in Halifax during the year was the Opening of new Private Patient Wards at the Halifax General Hospital. I take this opportunity of thanking all the members of the Health Department Staff for the zeal, energy and loyalty which they have, one and all, displayed during the year.

*

*

It is once again my privilege to express to the Chairman and Members of the Health Committee my appreciation of the sympathy and interest they have displayed in the work of the Public Health Department.

I am,

Mr. Chairman, Madam and Gentlemen,

Your Obedient Servant,

GEORGE C. F. ROE,

Medical Officer of Health.

Health Department, Powell Street, Halifax.

SECTION 1

*

Social Conditions Vital Statistics

REPORT

Social Conditions

Halifax is essentially an industrial town, being almost unique in the wide variety of the industrial processes carried on. The chief industries being woollen, worsted textiles, carpet weaving, machine tool manufacture and toffee making.

Statistics

Latitude 53° 44 North.		
Longitude 1° 50' West.		
Mean height above sea level, feet		780
Area in acres		14,081
Population (Census 1931)		98,115
(Males 44,600. Females 53,515).		
Population (Mid year, 1937)		97,490
Density of population per acre		6.9
Number of inhabited houses (1931 Census)		28,488
Average number of persons to each occupied	house	3.40
Rateable Value, 1936-37		£589,632
Sum represented by a penny rate, 1936-37		£2,250

Summary of Vital Statistics.

Birthrate per 1,000 population				12.8
Deathrate per 1,000 population				14.6
Infantile deathrate per 1,000 birt	hs			63
Natural decrease of population	(Excess	of	Deaths	
over Births)				175
Respiratory deathrate				1.32
Phthisis deathrate				•35
Deathrate from other forms of 7	Tuberculo	sis		.03
Tuberculosis deathrate (all form	s)			.38
Deathrate from Cancer				1.8

Summary of Deaths.

(Based on the Registrar General's "Short List" of causes of death).

Cause of De	Number			
Enteric Fever				_
Smallpox				-
Measles				1
Scarlet Fever				-
Whooping Cough				2
Diphtheria				5
Influenza				48
Encephalitis Lethargica				-
Cerebro Spinal Fever	·			5
Tuberculosis of respiratory syste	m			35
Other Tuberculous Diseases				3
Cancer, Malignant Disease				178
Diabetes				21
Cerebral Hæmorrhage, etc.				73
Heart Disease				424
Other Circulatory Diseases				146
Bronchitis				39
Pneumonia (all forms)				77
Other Respiratory Diseases				16
Ulcer of Stomach or Duodenum				12
Diarrhœa, etc				7
Appendicitis and Typhlitis				6
Cirrhosis of Liver	1.1			3
Acute and Chronic Nephritis				46
Puerperal Sepsis				-
Other Accidents and Diseases urition	of Pre	egnancy and	l Part-	3
Congenital Debility and Malforn	nation	, Premature	e Birth	49
Suicide				15
Other deaths from violence				40
Other defined Diseases				173
Causes ill-defined or unknown				1
		Total		1,428

er 1,000 ths	Torat One year	58	62	76 66 80 96 80 92 77 77 70 80 80	ivilians
Rate per 1, Births	Diarrhœa and Enteritis (under two years)	5.8	6.2	6'0 4'6 4'8 4'8 4'2 4'2 12'7 7'6 7'6 7'6 0'8 0'8	ly to ci
	fanflaenza	0.45	6£.0	0.59 6 0.12 4 0.38 4 0.38 4 12 0.18 4 12 0.08 2 0.08 2 7 0.08 2 7 0.18 5 0.18 5 0.49 0	but onl
on	Diphtheria	20.0	80.0	0.007 0.17 0.17 0.17 0.17 0.17 0.17 0.12 0.12 0.12 0.12 0.12 0.12 0.05 0.12 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	Wales,
Populati	Whooping Cough	0.04	0.04	0.14 0.02 0.04 0.03 0.03 0.03 0.03 0.03 0.03 0.04 0.03 0.02 0.03 0.02 0.01 0.02 0.01 0.02	1 and 1
er 1,000	Scarlet Fever	0.01	0.01	000000000	England
Annual Deathrate per 1,000 Population	Measles	0.02	0.03	0.03 0.0 0.06 0.0 0.05 0.0 0.05 0.0 0.08 0.0 0.08 0.0 0.08 0.0 0.00 0.0	regards England and Wales, but only to civilians
nual Dea	xoq-Ilam2	00.0	00.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	as
An	Enteric Fever	00.0	10.0	7 0.01 7 0.01 7 0.01 7 0.01 7 0.02 7 0.02 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00 7 0.00	population wns.
	ALL CAUSES	12.4	12.5	14.7 13.4 14.9 14.8 15.4 15.4 15.2 14.6 15.2 14.6	0
	Birthrate per 1,000 Total Population	14.9	14.9	13.4 13.3 13.3 12.6 12.1 11.2 11.7 11.7 12.0 12.3 12.8	the wh group of
	Year	1937	1937	1929 1930 1931 1932 1933 1935 1935 1936 1936	refer to
		England and Wales	125 County Boroughs and Great Towns including London	HALIFAX 1929 13.4 1930 13.3 1931 12.6 1932 12.1 1933 11.2 1934 11.7 1935 12.0 1935 12.0 1936 12.3	The mortality rates refer to the whole as regards London and the group of to

SECTION 2

*

General Provision of Health Services Bacteriological Service

General Provision of Health Services

(Arranged as required by the Ministry)

Hospitals provided or subsidised by the Corporation :---

Tuberculosis—The Sanatorium at Shelf provides accommodation for 50 adults (25 early and 25 other cases) and for 12 children. It is provided by the Halifax Corporation and receives cases from other districts, including Lancashire County.

The Health Committee has a call on 5 beds at the Bermerside Residential School for children in the pre-tubercular stage, or children suffering from non-pulmonary tuberculosis of a non-infectious character.

- Maternity Hospital—The Maternity Homes in connection with the Halifax General Hospital and the Royal Halifax Infirmary appear amply to meet the needs of the town. The Corporation makes a grant of £300 per annum towards the Infirmary Maternity Home.
- Hospital for Children—By arrangement with the Education Committee operations for Tonsils and Adenoids are carried out at the Halifax General Hospital.

There is a ward at the Halifax General Hospital for the treatment of sick or crippled children sent there by the Maternity and Child Welfare Committee, also an arrangement by that Committee with the Royal Halifax Infirmary for the treatment of cases of Ophthalmia Neonatorum.

An Orthopædic Service has been set up at the Halifax General Hospital for the treatment of cases sent by the Maternity and Child Welfare and Education Committees.

- Fever Hospital The Corporation provides the Isolation Hospital which admits cases of Scarlet Fever, Diphtheria, Enteric and other fevers from Halifax, and from the areas of neighbouring local authorities. Accommodation for 96 cases.
- Small Pox—The Halifax Corporation maintains the Small Pox Hospital at Belle Vue, Mount Tabor, which has accommodation for 26 patients. This hospital is subsidised by the Brighouse Joint Hospital Board and the Urban District Councils of Luddenden Foot, Midgley and Sowerby.
- Venereal Diseases—The Corporation has an arrangement with the Royal Halifax Infirmary for both out-patient and inpatient treatment. See page 49.

Hospital and Situation	Purpose	Total Beds	Authority	Medical Staff	Consultants
Isolation Hospital, Northowram Hall	Fevers	96	Halifax Health Committee	1 Res. Medical Officer	As required
Halifax Sanatorium, Shelf	Tuberculosis	62	Do	1 Res. Medical Officer The Sen. Asst. M.O.H. and Tuberculosis Officer	As required
Royal Halifax Infirmary	General Surgical Medical and Maternity	230	Voluntary Committee		
The Halifax General Hospital	General Surgical Medical Children and Maternity	405	Halifax Health Committee	1 Medical Superintendent (Resident) 3 Asst. Medical Officers (Res.)	1 Physician 1 Orthopædic Surgeon 1 Radiologist 1 Bacteriologist 1 Surgeon
Smallpox Hospital, Harewood Well	Smallpox	26	Do	Medical Officer of Health or Asst. M.O.H. (Non Resident)	As required

Hospital Facilities.

- General Nursing—Under the Local Government Act, 1929, the Halifax General Hospital, containing 405 beds was, on April 1st, 1931, transferred to the Local Authority and is administered by the Health Committee as a General Hospital.
- Mental Deficiency—The Craigie Lea Certified Institution, which is operated under licence of the Board of Control, has accommodation for 28 low grade cases of both sexes (excluding cot or chair cases).

AMBULANCE FACILITIES.

(a) For Infectious Cases-

One "Austin" 18 H.P. Ambulance; 1 "Guy" (20 H.P.) worked from the Isolation Hospital, Northowram Hall, serves Halifax and the other districts from which cases are admitted to the Hospital.

- (b) For non-Infectious and Accident Cases-
 - The Corporation's Motor Ambulance Service, worked by the Fire Brigade (Tel. 3222). (1 "Ford" 20 H.P., 2 "Austin" 20 H.P.)
 - (2) The Health Committee's Ambulance at the Halifax General Hospital (Tel. 4259). ("Austin" 20 H.P.)
 - (3) The Ambulance Service of the St. John Ambulance Brigade and British Red Cross Society. ("Austin" 20 H.P.).

Transport Officer-Mr. L. Chambers (Tel. 3831).

(E:	xclı	uding	g sc	hoo of	l cl th	lini e	cs Sch	whi lool	ch ar Med	opear lical	in Servi	the ice).	Annual	Re	port
Times	Hours	5 p.m. to 7 p.m.	Morning	Afternoon Morning & Afternoon	Do Do	MUNING	Afternoon	Morning	Evening	Afternoon & Evening Afternoon	Morning & Afternoon	2-30 to 5 p m.	3-30 p.m. to 4-30 p m. and 6 p.m. to 8 p.m. 6 p.m. to 8 p.m.	10 a.m. to 12 noon	and 6 p.m. to 8 p.m. 10 a.m. to 12 noon
T	Days	Monday Thursday	Monday	Do Tuesdav	Wednesday	t numerical design of the second design of the seco	Pridav	Saturday	First and Third Thursdays in each	Wednesday Thursday	Tuesday	Friday	Tuesdays (Women • and Children) Thursdays (Men) Auxiliary Centre for	Men : Daily	Sunday
104 400	W nere neid	8, Clare Road	66, 68, Northgate	Do Oueen's Road	66, 68, Northgate	TIO	Do	Do	Kirby Leas, Savile Road	Royal Halifax Infirmary	The Halifax General Hospital	The Halifax General Hospital	Royal Halifax Infirmary		
	Furpose	Tuberculosis	Ultra Violet Light and Massage	Babies Children under 5	Babies	and Massage	Ante and Post-Natal Babios	Ultra Violet Light	Ante-Natal	Ante-Natal	Ante-Natal	Psychiatric	Venereal Diseases		
	Name of Clinic	Tuberculosis	Maternity and Child Welfare						*Halifax District Nursing Association	*Royal Halifax Infirmary	The Halifax General Hospital	The Halifax General Hospital	Royal Halifax Infirmary		

(Excluding school

CLINICS.

*Subsidised by the Corporation.

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Nursing in the Home—This is provided by :--Halifax District Nursing Association. Siddal Nursing Association. Illingworth Nursing Association. Luddenden Nursing Association.

Midwives—See Maternity and Child Welfare Section, page 53.

Chemical Work—All chemical analyses are performed by Mr. H. T. Lea, M.Sc., the Borough Analyst. This work includes not only the analysis of samples taken under the Sale of Food and Drugs Acts (page 133), but also the examination of water from wells and other sources, which from time to time occupy the attention of the officers of the Health Department.

Bacteriological Examinations

The arrangements are as follows :---

Bacteriological examinations are carried out at the Royal Halifax Infirmary, where swabs, etc., may be sent direct.

A swab is said to be positive when Kleb's Loeffler Bacilli are found, and negative when they are not found. Failure to find K.L.B. does not negative the presence of diphtheria, and in suspicious cases it is wrong to wait for the result of a swab before giving anti-toxin.

A small Bacteriological Laboratory has been equipped at the Isolation Hospital, and the resident doctor examines the hospital throat swabs for K.L.B.

The Halifax General Hospital.

The Bacteriological and Analytical work of the Hospital is now carried out at the laboratory in the Hospital. Dr. Phelon, together with a whole time assistant is in charge of this work.

Enteric Fever.

Blood outfits for the agglutination test are supplied by the Health Department, and may be sent direct to the Royal Halifax Infirmary.

Tuberculosis.

Sputum and other material is examined only at the Tuberculosis Clinic, 8, Clare Road, Halifax, and should not be sent to the Royal Halifax Infirmary. Sputum must be sent in special outfits which will be supplied on the application of the practitioner.

Examinations, 1937.

The following Table shows the number of examinations carried out either at the Royal Halifax Infirmary, the Tuberculosis Clinic, or the Isolation Hospital during the year, either for the medical practitioners of the town, the clinic, or the Health Department :—

Sputum for Tubercle	 526
Diphtheria Swabs	 2742
Hair for Ringworm	
Agglutination Test (Widal) T.A.B.	 4
Others (Fluids, etc.)	 21

Total ... 3293

In addition to the above, routine samples of milk for bacteriological and biological examination are submitted to other laboratories.

Issue of Sera and Vaccines.

Diphtheria Antitoxin.

As the Health Department is usually prepared to remove diphtheria cases to hospital on the shortest notice, the issue of diphtheria antitoxin for use in the town should be rarely required; a supply is kept at the Health Department for issue in certain circumstances.

Botulism Antitoxin.

The Ministry of Health has placed botulism antitoxin at certain centres about the country. The nearest to Halifax are Manchester and Leeds. The Medical Officers of Health of these places are in charge of the supplies.

Immunisation against Diphtheria.

Immunisation agents are issued free to medical practitioners in the Borough.

SECTION 3

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Cancer

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Cancer

A Radium Clinic, in charge of Dr. Chester Williams, has now been established at the Royal Halifax Infirmary, towards the cost of which the Health Committee of the Halifax Corporation pay the sum of £50 per annum. Patients from Halifax are now admitted through this clinic for radium treatment at the Royal Infirmary, Bradford.

Age Pe	riod	Males	Females	Total
Under 25		 	-	_
25-35		 1	1	2
35—45		 2	5	7
45-65		 30	37	67
45—65 65 and over		 56	46	102
		89	89	178

Table showing Deaths at Age Periods during 1937 :---

	Death	irate	per	1000	po	pula	tion	during	the	past	10	years	:
--	-------	-------	-----	------	----	------	------	--------	-----	------	----	-------	---

Year	Deathrate	Year	Deathrate
1928	1.2	1933	1.6
1929	1.7	1934	1.8
1930	1.2	1935	2.0
1931	1.9	1936	1.8
1932	1.7	1937	1.8

Site	Males	Females	Total
Stomach	26	12	38
Intestines	11	11	22
Liver	2	1	3
Rectum	8	8	16
Oesophagus	5	3	. 8
Bladder Gall	1	2	3
Prostate	3	-	3
Tongue and Mouth	10	1	11
Neck	-	-	-
Uterus	-	21	21
Breast	_	9	9
Ovary		6	6
Urethra	1		1
Pancreas	-	2	2
Lungs	6	3	9
Bone	1	1	2
Other causes	15	9	24
	89	89	178

Table showing the organs or parts affected :--

General Notes.

I would draw particular attention to the following points brought out by the above tables:---

- (1) Cancer is almost exclusively a disease of adult life.
- (2) Cancer appears in many forms.
- (3) Cancer in men chiefly attacks the food tract and in women the breasts and special organs of generation.
- (4) There is no scientific evidence that Cancer is infectious or contagious.
- (5) Cancer frequently follows chronic irritation.

Cancer of the Stomach.

The stomach is one of the organs most frequently attacked by Cancer. In men it is the most frequent site of cancer, and in women it ranks third after the breast and organs of reproduction. Cancer of the stomach accounts for almost 12,000 deaths per year. If any advance is to be made in the prevention of Cancer of the Stomach, it is essential that the diagnosis should be made in the early stages whilst treatment is a practical proposition. The following are the early symptoms and in a person over 30 years of age, their presence should lead to an investigation of the stomach by a doctor :

- (1) Gradual loss of appetite for no apparent reason.
- (2) An easily fatigued feeling.
- (3) Vague abdominal discomfort.
- (4) Nausea; often in the morning before food.
- (5) A change in the usual bowel habits.
- (6) Slight pallor.
- (7) Gradual loss of weight.

Facilities for Diagnosis and Treatment.

In addition to the Radium Clinic at the Royal Halifax Infirmary before mentioned, facilities for diagnosis and treatment (clinical, laboratory, and X-ray) exist at the Halifax General Hospital.

Propaganda. The Importance of Early Treatment.

The Medical Officer of Health during the winter session gives lectures (usually illustrated) on this aspect of the Cancer problem. In addition, Cancer Leaflets are issued free by the Public Health Department. Each year a Health Week is held, and the importance of seeking early medical advice—if Cancer is suspected—is stressed.

Is Cancer increasing?

Even when allowance has been made for the fact that the proportion of elderly persons in the community is greater now than formerly (and also allowing for improved diagnosis) the increase is probably a real one. The mortality has trebled itself in two generations. As regards diagnosis superficial cancers were easily diagnosable even seventy years ago, yet they have increased by over 20 per cent.

Cancer Prevention.

Learn the Danger Signals and remember the importance of Early Treatment.

Statistics prove that the average cancer patient obtains medical advice too late. One should learn how to recognise its principal danger signals, and immediately seek medical advice upon the first suspicion that the disease may be present. The following preventive points are of general interest :--

- If you see or feel a small lump on your body consult your doctor at once.
- (2) If you notice unusual discharges or bleeding from the openings of the body consult your doctor at once.
- (3) Avoid chronic irritation, e.g., excessive smoking, jagged teeth, ill-fitting false teeth and the practice of drinking fluids at high temperatures. The hot stem of a pipe may cause irritation of tongue or/and lip.
- (4) Consult your doctor re Chronic Indigestion.
- (5) Remember the importance of the time factor (early treatment) in cancer.
- (6) Remember there may be no pain in the early stages. If the early stages of cancer were as painful as toothache many lives would be saved.
- (7) Cancer frequently develops in the region of a chronic ulcer (e.g., on lip or tongue), and it is important to see that such ulcers are properly cured.



SECTION 4

*

Infectious Disease
(a) Isolation Hospital
(b) The Halifax General Hospital

2. Immunisation

Isolation Hospital

The Isolation Hospital is situated at Northowram, on a site of 32 acres, at a height of 800 feet above sea level.

The accommodation is as follows :----

	E	Beds.
Scarlet Fever, 2 blocks of 26 beds each	· ···	52
Diphtheria, 1 block of 26 beds		26
Observation, 1 Cubicle Block		12
Scarlet Fever Discharge Block		6
	Γotal	 96

Also there is a Nurses' Home, an Administrative Block and the usual out-offices.

Facilities exist for future extensions.

As regards the size of an Isolation Hospital in relation to the population which it is to serve, the usual estimate is one bed for every 1,000 persons, but for several reasons, the requirements of different areas in this respect vary with local circumstances.

Dr. Donald MacDonald resigned his appointment as Resident Medical Officer at the Isolation Hospital, leaving on November 3rd. He was succeeded by Dr. Sidney Carter, who commenced duty on December 3rd.

I am indebted to Dr. Carter for the following report:---

The Isolation Hospital supplies, when necessary, the staff required for the Small-Pox Hospital. The laundry at Northowram Hall does the laundry work for the Sanatorium and the Small-Pox Hospital.

The Hospital is a recognised Training School for Fever Nurses in accordance with the regulations laid down by the General Nursing Council.

Routine Bacteriological work and Hospital dispensing is carried out at the Hospital.

Scarlet Fever.

The number of cases admitted as Scarlet Fever was 174, of whom 146 were Borough cases and 28 out of the Borough cases. 170 were true cases and 4 were found not to be suffering from Scarlet Fever.

The average length of stay (for true cases) was 34.3 days. The following complications and sequelæ occurred amongst the Scarlet Fever cases.

		Present on admission	Onset after admission	Total
Cervical Adenitis	 ·	2	14	16
Rhinorrhœa	 	2	3	5
Otitis Media	 	2	2	4
Bronchitis	 	-	2	2
Albuminuria	 		3	3
Scabies	 	1	-	1
Mumps	 	1	-	1
Scalds	 	1	-	1
Septic Lesions	 	3	-	3
Secondary Rash	 	-	1	1
Rheumatism	 	1	1	2

No deaths occurred amongst the Scarlet Fever patients. Severe cases received serum. There were four return cases. All susceptible patients were, with the necessary consent, immunised against Diphtheria.

Diphtheria.

During the year 182 cases (172 Borough cases and 10 out of Borough cases) were admitted as Diphtheria. Of these, 5 were found not to be suffering from Diphtheria and 49 were positive swab cases without clinical symptoms, leaving 128 cases of true clinical Diphtheria.

			Present on admission	Onset after admission	Total
Cervical Aden	itis		 20	1	21
Palatal Paresi	S		 -	12	12
Laryngitis			 2	-	2
Albuminuria			 2	10	12
Otitis Media			 4	_1 _	5
Fits (Epileptic	c)		 1 .	-	1
Chorea			 1	-	1
Quinsy			 1	-	1
Measles, Card	iac L	esions	 13	3	16
Bronchitis			 3	-	3
Rhinorrhœa			 11	-	11
Conjunctivitis			 1	-	1
Abscesses			 -	2	2
Nephritis			 1	-	1

The average length of stay for true clinical cases was 53.2 days. The following complications occurred:---

There were 4 deaths from Diphtheria during the year.

As to the value of swabbing cases, it should be remembered that bacilli in the throat of a suspected case (in the absence of clinical signs) does not necessarily mean that the case is infected with diphtheria. A positive swab may simply mean that a person is a "carrier." Before discharge from Hospital three consecutive negative swabs are obtained. The presence of non-virulent bacilli identical morphologically with K.L.B. complicates the issue in bacteriological diagnoses. Virulence tests may be necessary to supplement the bacteriological result.

As regards the prognosis of diphtheria the most important point is the day on which serum is first given. The importance of the early administration of anti-diphtheria serum cannot be over-emphasised.

All members of the Hospital staff are now immunised against diphtheria, and since this procedure was adopted (two years ago) not a single member of the staff contracted the disease. Generally speaking, where the staffs of Hospitals have been immunised, the attack rate and mortality rate among them (compared with corresponding rates among nonimmunised staffs) show a very considerable advantage to the immunised.

Typhoid and Para-Typhoid.

No case was admitted during the year.

Erysipelas.

During the year 5 cases were admitted; they were all true cases.

Measles.

Six cases were admitted; all true cases.

Chicken Pox.

Six cases were admitted; all true cases.

Mumps.

Three cases admitted; two not true cases.

Laboratory Report.

The following examinations were carried out :---

Test	Positive	Negative	Total
Swabs for K.L.B	658	656	1314

The following Table shows the distribution of cases as from 'Outside the Borough':---

District	Scarlet Fever	Diphtheria	Others	Total
Queensbury and Shelf	 3	3		6
Ripponden	 18	2	1	21
Elland	 1	-	-	1
Sowerby Bridge	 4	3	-	7
Bradford	 		1	1
Brighouse	 1	1	-	2
Hebden Royd	 -	-	_	_

Ambulance Facilities for Infectious Cases.

Two ambulances are garaged at the Isolation Hospital for the removal of infectious cases to Hospital. Both "Austin" 18 H.P.

Small-Pox Hospital, Mount Tabor.

The Borough remained free from this disease during the year.

This Hospital, maintained by the Council, is under agreement to admit cases from the Brighouse Joint Hospital Board's area, from Luddenden Foot, Midgley and Sowerby. There is accommodation for 26 patients.

The Hospital is staffed (in addition to the resident caretaker and his wife) by nurses from the Isolation Hospital, and the victualling and nursing is supervised by Miss Wilson, Matron, Isolation Hospital. The Medical Officer of Health and the Assistant Medical Officer of Health, provide the medical attendance. The situation of the Hospital, on the open moorland, is such as to expose it to wild weather, and the wood and iron buildings are not the most suitable type for such a situation, the upkeep being costly.

Disinfection.

A steam disinfector and Formalin disinfectors are part of the equipment at the Isolation Hospital.

During the year the following have been disinfected :-Hospital articles...Patients' articles.........3,259

Bundles	of	sundry	articles				15
---------	----	--------	----------	--	--	--	----

Immunisation against Diphtheria.

An outline of the present scheme was given in last year's Annual Report. T.A.F. is the agent used.

During the past year 624 completed treatment, and there were 654 new cases. Of these 11 were of pre-school age, the remainder of school age.

An endeavour is made to do a Posterior Schick Test in all cases. An Anterior Schick Test is not done in young children. Positive Posterior Schick cases are offered subsequent injections. Three injections (T.A.F.) are given at fortnightly intervals. The majority of cases are done in the schools.

No fatal case of diphtheria among the immunised occurred during the year.

Special Investigations.

A special investigation in connection with diphtheria "carriers" was interrupted by the change in the medical staff.

Prevalence of, and Control over, Infectious Diseases

Enteric Fever.

One case of this disease, which recovered, was notified during the year.

The following Table shows the incidence of Typhoid Fever (including para) in Halifax during the past 10 years:--

1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
8	8	9	4	1	3	-	-	3	1

One case in 1932, three in 1933, and two in 1936, were not true cases of the disease.

Small-Pox.

No case of this disease occurred during the year.

Ophthalmia Neonatorum.

The following Table shows the number of cases notified, where they were treated and the results achieved:---

Cases						
	Tre	eated	Vision Unimpaired	Vision Impaired	Total Blindness	Died
Notified	at Home	at Hospital				
5	1	4	4	-		-

In one case treatment had not been completed at the end of the year.

During recent years there has been a great reduction in the number of blind children. This is mainly due to the efforts of the Maternity and Child Welfare service in preventing blindness from this disease.

Scarlet Fever.

The number of notifications of this disease received during the year was 162, and the total number of cases admitted to Hospital was 174. 146 cases were from within the Borough and 28 from outside the Borough.

No deaths occurred.

Diphtheria.

Year	Incidence	Case Mortality per cent.	
1936	 206		5.8
1937	 164		3.0

There were 164 notifications received and 182 cases were admitted to the Fever Hospital as suffering from Diphtheria, of which 10 were from outside districts.

There were 5 deaths from the disease.

The discrepancy between the number admitted to Hospital and the number of notifications is accounted for by the fact that cases admitted as diphtheria were later found not to be suffering from the disease, and were not officially notified.

Attention is drawn to the need for IMMEDIATE medical advice in ailments of children, and especially when there is anything wrong with the throat, or when breathing is difficult. Diphtheria is a disease which comes on with very slight symptoms, and the patients are always more seriously ill than they seem to the inexperienced. The antitoxin treatment of Diphtheria, which is of such remarkable value when applied early, is of little use when several days have been wasted in the hope that domestic remedies may cure. Parents should keep Diphtheria always in mind and send for the doctor early when a child is poorly.

Diphtheria is a serious disease. The progress of a case of Diphtheria depends very much on how long the disease has lasted before it is seen by a doctor. It is not uncommon to find that the initial sore throat of Diphtheria is disregarded by the parents, and it is only when after some days' illness the child's condition becomes alarming that a doctor is called in. It is in this class of case that heart failure, paralytic manifestations and toxaemia occur. Diphtheria obstructing the larynx is very dangerous and usually necessitates immediate operation. Another danger in connection with this type of Diphtheria is the tendency for Broncho-Pneumonia to occur. Swabs should be examined in all cases, but where there is a reasonable probability that the disease is Diphtheria—and the swab is negative—it is advisable to give anti-toxin.

Puerperal Fever and Puerperal Pyrexia.

Puerperal Fever—the most potent cause of death in childbirth—is caused by streptococci, but obstetricians are divided in their opinion upon the question of the channel of infection in these cases. Prevention depends primarily on good midwifery practice.

12 cases of Puerperal Fever were notified during the year; there were no deaths.

29 cases of Puerperal Pyrexia were notified during the year.

Under the Public Health Act 1936, Puerperal Fever ceased to be notifiable after the 1st October, 1937.

The obligation to notify cases of Puerperal Pyrexia now includes conditions previously notifiable as Puerperal Fever under the Infectious Diseases Notification Act.

Cerebro-Spinal Fever.

Five cases of this disease (one non-civilian) were notified during the year. All terminated fatally.

Influenza and Pneumonia.

These diseases were rather more prevalent during the year under review. The mortality is mainly from influenzal pneumonia.

During the year 41 notifications of Influenzal Pneumonia and 73 of Primary Pneumonia were received.

Non-Notifiable Infectious Diseases.

Measles.

The control of Measles is specially difficult owing to the fact that it is infectious for some days before the rash appears.

Known, or suspected cases are visited at their homes by the Health Visitors, who, if no doctor is in attendance, advise parents as to treatment, and arrange, when such a course appears to be indicated, for medical or institutional treatment. Appropriate leaflets are also left at the homes, and distributed through the Health Department and Child Welfare Clinics.

During the year the incidence of this disease was not heavy; 56 cases were visited, 8 being removed to Hospital. 1 death occurred.
Research is being carried out at the Hospital in respect of the treatment of Measles with Placental Extract. So far the results have been good.

Whooping Cough.

The control of this disease is very difficult because of the insidious nature of its onset.

Cases cropped up throughout the year, but the disease did not assume an epidemic form at any time.

Similar measures to those outlined above are adopted for controlling the spread of this disease, and 59 cases were visited by the Health Visitors, 6 being admitted to Hospital. The disease caused 2 deaths.

This is one of the most fatal diseases of childhood. Its chief danger is Broncho-Pneumonia. The fatality rate between the ages of 5 and 10 years is about 0.2 per cent., but, during the first year, it is about 4 per cent. This death-age curve is instructive. In no other disease does the age of onset so much affect fatality. It is therefore important (as the deathage curve teaches us) to take every precaution to postpone attack by this disease to later years, when it is a mild illness. Infection is spread by droplets especially in the early catarrhal stage. Diagnosis and discharge of cases are controlled at the Hospital by the cough-plate method. Control is difficult because diagnosis is rarely possible during the infectious catarrhal stage.

DISEASE		CASES		DEA	THS	
DISEAS		-	1936	1937	1936	1937
Diphtheria			206	164	12	5
Scarlet Fever			136	162	0	0
Enteric			3	1	0	0
Measles				-	7	1

(Measles not being notifiable the number of cases is not known).

Notification.

The following Table shows the number of notifications of infectious disease received during the year :---

Dis	ease		Number
Smallpox		 	-
Typhoid Fever		 	1
Scarlet Fever		 	162
Diphtheria		 	164
Puerperal Fever		 	12
Puerperal Pyrexia		 	29
Erysipelas		 	37
Ophthalmia Neonator	um	 	5
Encephalitis Lethargi	ca	 	_
Acute Polio Encephal	litis	 	—
Acute Polio Myelitis		 	-
Cerebro-spinal Fever		 	5
Pneumonia-			
Influenzal		 	41
Primary		 	73
Non-civilian		 	1
Tuberculosis-			And the second second
Respiratory		 	83
Other Forms		 	18
	Total	 	631

The Halifax General Hospital

This Institution which was appropriated under the Public Health Act is administered by the Health Committee. It is situate a mile and a half South of the centre of the town at Salterhebble, on a site of 10.6 acres, at an altitude of 216 feet above sea level, and serves an area originally bounded by the Halifax Poor Law Union, with a population of approximately 190,000. It comprises 4 large rectangular blocks (8 wards), 2 circular blocks (6 wards), a maternity block (24 beds and cots), a Nurses' Home, an administrative block, and the usual out-offices.

Mr. H. A. Kidd, F.R.C.S. (Ed.), resigned his appointment as Medical Superintendent, in March; he was succeeded by Mr. H. I. Deitch, M.S. (Lond.), F.R.C.S., to whom I am indebted for the following notes :--

General Observations.

The year has been a record one in many respects.

The Maternity Department has continued to increase, the total number of deliveries being 630, an increase of 120 above the previous year. At the same time, the number of maternal deaths has diminished from 4 to 3.

The number of operations carried out rose from 678 to 840, the number of admissions from 2,711 to 3,439, and the average number of occupied beds from 297 to 318.

Throughout the year there has been a marked change in the population of the Hospital, there being a continuous diminution in the number of chronic patients and an increase in the acute cases.

For their generous help in taking over many of these chronic cases, the Hospital is indebted to the Public Assistance Committee.

The cases treated from the West Riding have increased in number.

The cost per patient per week has fallen considerably.

During the year one ward was converted from general use into a series of private wards, able to accommodate in separate rooms, 19 patients. This has been used to capacity and is a considerable source of income, although not of profit, as the charges suffice merely to cover cost. They were formally opened on September 14th, by His Worship the Mayor, Councillor Crossley Hodgson.

Nursing Staff.

Theophilus Cottage was given up owing to its unsuitability and alternative temporary accommodation obtained by renting houses in Rhodesia Avenue. It was decided that an extension of the Nurses' Home was urgently necessary, and it is hoped that a scheme will be proceeded with shortly.

The Nursing Staff personnel was increased considerably to cope with the increased work of the Hospital, their accommodation was improved, and increased facilities provided for their entertainment.

Massage Department.

The work of this department has expanded, an ever increasing number of out-patients attending. The number of treatments given has increased from 11,500 to 13,500 in the year.

X-Ray Department.

The latest type portable X-Ray has been installed at a cost of £450; this has enormously increased the usefulness of the Department, and has been of considerable help in the diagnosis of seriously ill patients who are unable to be moved.

Re-wiring Electric Lighting System.

This has been completed in uniformity with the rest of the Nurses' Home.

Boiler Plant.

Following a report from the Insurance Company that the two Lancashire Boilers required overhauling, these have been repaired at a cost of some £200.

Lifts.

The lifts serving the two circular blocks have been replaced by modern type lifts, and it is intended to replace the others in the Hospital at the rate of two per annum.

Laundry.

The number of articles dealt with has increased considerably and now exceeds 1,000,000 per annum. This has necessitated considerable re-organisation to enable the Calender Ironer to be run continuously throughout the day. Should the work increase further an additional Ironer will need to be installed.

Medical Staff.

Owing to the increased work of the Hospital an additional Assistant Medical Officer has been necessary during the latter months. To increase the efficiency of the Hospital the duties of the Resident Medical Officers have been specialised, one resident devoting the whole of his time to surgical work, another to medical, and a third to obstetrics.

New Theatre.

The desirability of a new operating theatre was considered and agreed to by the Council.

Pathological Department.

The increase in work of this Department has led to the appointment of a full time Pathological Assistant, and to the engagement of the Pathologist to work extra sessions when necessary.

Medical Staff.

The resident medical staff comprises the following :--

- (a) Medical Superintendent, who being a M.S. of Lond., does the major portion of the operative surgery, in addition to his administrative duties.
- (b) Senior A.M.O., also with considerable operative experience who can deputise when necessary.
- (c) 3 Junior A.M.O.'s.

The visiting medical staff is as follows :--

- (a) Consulting Physician.
- (b) Consulting Surgeon.
- (c) Consulting Orthopædic Surgeon.
- (d) Consulting Ophthalmologists (2).
- (e) Consulting Obstetrician.
- (f) Consulting Psychiatrist.
- (g) Radiologist.
- (h) Pathologist.
 - (a) and (f) attends weekly.
 - (g) and (h) twice weekly.
 - (b), (c) and (d) when required.
 - (e) fortnightly.

The following Table classifies the accommodation and shows the number of beds occupied at the end of the year.

		BEDS								
Classification of Ward	No. of Wards	М	en	Wo	men	Children under 16		To	otal	
		Pro- vided	Occu- pied	Pro- vided	Occu- pied	Pro- vided	Occu- pied	Pro- vided	Occu- pied	
Medical	4	31	45	93	52	_	11	124	108	
Surgical	3	33	22	32	36			65	58	
Chronic Sick	4	54	48	46	45	-	7	100	100	
Children	1		-	-	-	40	47	40	47	
Isolation	-	Si	de Wa	rds use	d whe	n nece	ssary		-	
*Maternity	4	-	-	60	30	-	-	60	30	
Total	16	118	115	231	163	40	65	389	343	

*Includes 23 Ante-natal beds for expectant mothers.

In-Patients.

1.	Total number of admissions (including infants born in Hospital)	
2.	No. of Women confined in Hospital	644
3.	No. of Live Births	610
4.	No. of Stillbirths	34
5.	No. of Deaths among the newly born (i.e., under 4 weeks of age)	
6.	Total No. of Deaths among children under 1 year of age (including above)	52
7.	No. of Maternal Deaths among women confined in Hospital	0
8.	Total No. of Deaths	472
9.	Total No. of discharges (including infants born in Hospital)	
10.	Duration of stay of patients included in 8 and 9 above :	
	No. of cases whose total stay was for the follow- ing periods :	
	(a) Four weeks or less	2,483
	(b) Exceeding 4 weeks but under 13 weeks	689
	(c) Thirteen weeks or more	200

11.	No. of beds occupied :		
	(a) Average during the year		318
	(b) Highest 379 on 7/12/37.		
	(c) Lowest 304 on 31/8/37.		
12.	No. of surgical operations under general	anæsthetic	
	(excluding dental operations)	Genera	680
		Spinal	53
13.	No. of Abdominal sections		127

Out-Patients.

There is no out-patient or casualty departments but many cases (chiefly surgical) attend for re-examination after discharge. Cases are also seen in consultation with reference to admission, and a considerable amount of out-patient work is done in the massage and X-ray departments.

Total number of partment	persons 	seen in		it-patient 	de-	535
Number subsequen	tly admi	tted for	in-pati	ent treat	tment	109
Number who had Institution	received	in-pati 	ient trea 	tment in		251
Total number of a	attendanc	es				2,428

Ante-natal Clinic: No. of women seen 616. Attendances, 3847. Classification of In-Patients who were discharged from or who died in the Institution during the year.

D: 0		n under s of age	Men and	Women
Disease Groups	Dis- charged	Died	Dis- charged	Died
Acute Infectious Disease	41	3	21	11
Influenza	7	3	18	2
Tuberculosis— Pulmonary	1	1	19	18
Non-Pulmonary	8	1	10	3
Malignant Disease	_	_	26	79
Rheumatism				
(1) Acute Rheumatism (rheumatic				
fever) together with sub-acute				
rheumatism and chorea	17	1	9	2
 (2) Non-articular manifestations of so-called rheumatism (muscular 				
rheumatism, fibrositis, lumbago				
and sciatica)			10	-
(3) Chronic Arthritis		-	30	3
Venereal Disease	1		12	3 2
Puerperal Pyrexia	-	-	7	-
Puerperal Fever-				
Confined in Hospital	-		5	1
Admitted from outside Other diseases and accidents connected	_		0	1
with pregnancy and childbirth	6	24	260	3
Mental Diseases—				
(a) Senile Dementia		-	10	-
(b) Other	8	-	46	1
Senile Decay	-	_	15	6
Accidental Injury and Violence	12	3	60	22
In respect of Cases not included above.				
Disease of Nervous System and Sense			-	
Organs	11	2	57	31
Disease of Respiratory System		16	92	45
" Circulatory System	3	1	107	130
., Digestive System	40	4	95	10
,, Genito-Urinary System Skin	67 72	3 1	131 50	20 2
Other Diseases	50	3	87	10
Mothers and Infants discharged from	_			
Maternity Wards and not included				
in above figures	576	-	546	-
Persons not included in above headings	103	7	85	5
Totals	1084	68	1816	404



SECTION 5

*

Tuberculosis

Tuberculosis

As regards the prevention of Tuberculosis, patients should observe the following precautions :--

- Don't spit in the street, trams, buses, or homes. Spitting scatters the germs of the disease. Spit into a special bottle.
- 2. Don't cough into other people's faces.
- 3. Don't swallow your phlegm.
- Don't sleep in the same bed with anyone else. If possible, sleep in a separate room.
- 5. Don't kiss anyone on the lips.
- 6. Keep your windows open.
- 7. Attend your doctor regularly.

SYMPTOMS which may be caused by Tuberculosis of the Lungs, and in respect of which it is advisable to consult your Doctor. Remember the importance of early Treatment :---

- 1. Wasting.
- 2. Lassitude.
- 3. Cough—in the early stages slight, later hacking.
- Spit—Mucoid, thick, airless, and may be streaked with blood.
- 5. Spitting up blood.
- 6. Severe Night Sweats.

The Tuberculous Service is greatly handicapped if Tuberculous patients only go to their docters or the clinic when the disease is already advanced.

I am indebted to Dr. Wilfrid Smith, Tuberculosis Officer, for the following report :--

TUBERCULOSIS DEATH-RATE.						
PERIOD	Respiratory only	All Forms				
10 years average 1927-36	•58	•74				
1937	*35	.38				

The following Table shows the number of formal notifications received during the year classified for age, sex, and localisation of the disease.

	Total	Notifications	55 32 14 15
		TOTAL (all ages)	50 31 8 10
	ulosis	65-	4
IONS	Tuberci	55-	∞ m
ICAT	ases of '	25- 35- 45- 55- 65-	44
OTIF	f new ca	35-	15 8 1
AL N	tions of	25-	/ 8 /
FORMAL NOTIFICATIONS.	Notifica	20-	2 0 0
F	Number of Primary Notifications of new cases of Tuberculosis	10- 15- 20-	0001
	er of P	10-	- 01
	Numb	5-	4 0.4
		1-	5
		-0	1111
	AGE PERIODS		Pulmonary Males Females Non-Pulmonary Males , Females

In the following Tables, new cases coming to the knowledge of the Medical Officer of Health otherwise than by formal notification, together with the sources of such information are set out.

AGE PERIODS	-0	1-		10-	15-	20-	25-	35-	45-	5- 10- 15- 20- 25- 35- 45- 55- 65-	65-	TOTAL
Pulmonary Males ,, Females Non-Pulmonary Males ,, ,, Females	1111						3	1 1 2 2	1 1	-		6 v n 0
000											No of	No of Cases.
	SOURCE OF INFORMATION.	HO DE	INF	OKM	ATIO	ż				Pulr	Pulmonary	Non- Pulmonary
Death Returns { from local Registrars	al Reg	gistrars	B.			level.		:		:	9	2
Posthumous notifications	an and		out the			1913		: :	. :	: :	-	
"Transfers" from other areas	treas (c	other th	han tra	(other than transferable deaths)	uble de	saths)					1	ŝ

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Other Sources if any (specify)

The following Table shows the number of notified cases of Tuberculosis remaining in the Borough on December 31st, 1937 :---

Total		Pulmonary		N	on-Pulmonar	у
Cases	Males	Females	Total	Males	Females	Total
703	310	255	565	65	73	138

Public Health (Prevention of Tuberculosis) Regulations, 1925. No action appeared to be called for.

Public Health Act, 1925; Section 62.

No action was taken.

Tuberculosis Clinic.

The Tuberculosis Clinic is situated at 8, Clare Road. It is a sorting house, advisory centre, and consultative clinic; not a treatment centre. Patients are sent from the clinic to sanatoria, and recommended domicilary treatment by their private doctors. Close co-ordination exists between the Clinic, Medical Practitioners, and the Health Department.

Tuberculosis Scheme.

			Non-Pul	
Diagnosis	m	onary	monary	Total
A-New cases (excluding contacts):				
(a) Definitely tuberculous		51	21	72
(b) Diagnosis not completed		—	-	4
(c) Non-tuberculous				104
B—Contacts:				
(a) Definitely tuberculous		12	1	13
(b) Diagnosis not completed				2 85
(c) Non-tuberculous		—	-	85
C-Cases written off Clinic Register as	:			
(a) Recovered		17	14	31
(b) Non-tubercular (including any cases previously diagnosed				
entered on the Dispensary Reg	gister			
as tuberculous		-	-	203
D—Number of cases on Dispensary Reg on December 31st :—	gister			
(a) Definitely tuberculous		430	118	548
(b) Diagnosis not completed			-	6

Number of cases on Dispensary Register on Jan. 1st	570
Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years	8
Number of cases transferred to other areas, cases not desiring further assistance under the scheme and cases "lost sight of"	40
Cases written off during the year as dead (all causes)	30
Number of attendances at the Dispensary (including contacts)	1,156
Number of insured persons under Domiciliary Treatment on the 31st December	30
Number of consultations with medical practitioners :(a) Personal(b) Other(c) Other	31 291
Number of visits by Tuberculosis Officers to homes (in- cluding personal consultations)	39
Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	2,220
 Number of (a) Specimens of sputum, etc., examined (b) X Ray examinations made in connection with 	526
Dispensary work	232
Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above	_
Number of "T.B. Plus" cases on Dispensary Register on December 31st	169

Halifax Sanatorium.

At present all X-Ray work in connection with the Sanatorium is done at the Halifax General Hospital. This arrangement was more or less considered as a temporary measure until such time as the financial position of the country becomes easier. There is ample accommodation at the Sanatorium without any structural alterations, for the installation of an up-to-date X-Ray apparatus for chest work. All up-to-date Sanatoria are equipped with such a machine. There is no need to emphasise the great assistance X-Rays are in the treatment by Artificial Pneumothorax of suitable cases of Pulmonary Tuberculosis. It is not always desirable to move patients by ambulance for an examination by X-Ray when they are undergoing this form of treatment. I may say that this Sanatorium was amongst the first in the country where this treatment was carried out, and it is desirable that it should be kept up-to-date in the way of modern equipment.

	Halifax cases	Other Cases	Total
Remaining in on December 31st, 1936	47	7	54
Admitted during the year	85	34	119
Discharged during the year	93.	28	121
Died	8	1	9
Remaining in on December 31st, 1937	31	12	43

Admissions and Discharges during the year :--

Tuberculosis After-Care.

From April 1st the After-care Service was taken over from the Voluntary Committee, and administered by the Health Committee's officials.

Cases recommended by the Tuberculosis Officer are investigated, and the economic position of the families ascertained. From these reports, lists of suitable cases are submitted to the Health Committee on whose authorisation extra nourishment in the way of milk and eggs is supplied to the patients free of charge. The lists are revised quarterly.

Although the scheme has placed an additional administrative burden on the Department, it continues to work quite smoothly, and has been fully justified by the cessation of complaints from patients who had become somewhat resentful of overlapping visits as between the voluntary and official visitors.

I cannot let this opportunity pass without expressing my deep appreciation of the services rendered in this connection, over many years, by the Council of Social Welfare, whose relations with my Department have always been most cordial. The Council continues to render invaluable assistance by supplying clothing, etc., in necessitous cases.

SECTION 6

*

Venereal Disease

Venereal Diseases

In conjunction with the County Authority, a joint clinic for the treatment of venereal diseases is held at the Royal Halifax Infirmary.

The clinic is open for women and children every Tuesday afternoon from 3-30 to 4-30, and from 6 to 8. For men, every Thursday between 6 and 8 p.m. Also an auxiliary treatment centre for men is open daily from 10 a.m. to 12 noon, and 6 to 8 p.m., and on Sundays from 10 a.m. to 12 noon. It appears that these arrangements are sufficient and adequate for the needs of the Borough.

Dr. R. W. Hendry, M.B., F.R.C.S. (Ed.), and Dr. H. V. Phelon, M.R.C.P. (Lond.), are in charge of this Clinic.

Co-ordination between this and the Maternity and Child Welfare Service has been secured by the attendance of one of the Health Visitors at the Tuesday afternoon and evening sessions.

The following figures refer to local patients attending Treatment Centres:---

Number of persons dealt with for the first time during the year, and found to be suffering

from :	mering	Local Clinic	Other Clinics
Syphilis		36	
Soft Chancre		1	—
Gonorrhoea		90	2
Conditions other than Venereal		118	3
Total		245	5

Total attendances at the out-patient clinic	7826	95
Aggregate number of in-patient days	143	_
Number of injections of approved arsenoben-		
zene compounds given	809	-

Pathological Work.

Microscopical :	exa	Specimens amined at the atment Centre	Specimens sent to an Approved Laboratory
For Syphilis	 	6	—
For Gonorrhoea	 	949	—
Cultural for Gonorrhoea	 		

Serum :		exa	Specimens mined at the atment Centre	Specimens sent to an Approved Laboratory
For Syphilis				376
For Gonorrhoea			—	46
Cerebro-Spinal Fluid				23
Others for diagnosis of	Venereal			
Disease				

There are 7 medical practitioners not including the two officers of the clinic, in the Borough, qualified to receive free supplies of anti-venereal diseases therapeutic substances.



SECTION 7

×

Maternity and Child Welfare

Maternity and Child Welfare

The Infant Welfare Centres are not for the purpose of treating sick children but for keeping healthy children healthy. Sick children are referred to a private practitioner or to Hospital. At the Centres they receive regular medical inspection and weighing.

I am indebted to Dr. Margaret M. McDowall, the Medical Officer i/c of Maternity and Child Welfare, for the following report :---

Midwives.

Number practising in the Borough of Halifax during the year (including Midwives working in Institutions)	35
Number of Independent Midwives	8
Number holding the Central Midwives Board Certificate	36
Number of bona fide Midwives (i.e., holding the Certificate granted by the Central Midwives Board to those women who were in practice before 1902, in virtue of such practice and not by reason of having passed an examination)	_
Number of cases in which Medical aid was summoned by	
Midwives	116
Medical aid notices sent on behalf of the child	21
Of these, 6 were for "discharging eyes." 5 for dangerous feebleness.	

- 3 for unsatisfactory condition of baby.
- 4 for prematurity.
- 1 for inflamed breast (baby).
- 1 for small baby.
- 1 for Asphyxia.

Notifications received in accordance with C.M.B. Rules from Midwives.

Intention to resort to artificial feeding 36

Subsidised Midwifery Services.

Midwives Act 1936.

This Act, which commenced to operate on August 1st of the current year, requires Local Authorities to provide a service of qualified salaried midwives. After considering alternative schemes, the Council finally adopted a proposal for the carrying out of the domiciliary midwifery service in the town by the District Nursing Association. The scheme is administered by a joint Committee composed of representatives of the Nursing Association and the Maternity and Child Welfare Committee of the Council; it is subject to review at the end of 12 months.

The Bradshaw service, operated for many years by the District Nursing Association and subsidised by the Council, was brought within the ambit of the scheme.

The following Table shows the work carried out from the commencement of the scheme, August 1st, to the end of the current year :---

....

Number o	f Bookin	gs			 	152
,,	Confine	ements co	ompleted	:		
	(a) as Mid	wife		 	159
	(b) as Mat	ernity N	lurse	 	24
"	cases s	sent to F	Iospital		 	5
Ante-Nata	l Clinics	: >				
(a) N	umber of	Session	5		 	16
(b)	,,	First A	ttendanc	es	 	98
(c)	,,	Repeat	Attenda	nces	 	201
(d)	,,	Domicil	iary Visi	ts	 	517
D . M.	1 Th					100

Post-Natal Domiciliary Visits 120

Luddenden.

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N 1 C D 1

Nurse Kniveton attended 6 midwifery cases in the Halifax Borough during 1937. The larger part of her midwifery work is under the jurisdiction of the West Riding Authority.

Her duties also cover the nursing of medical and surgical cases.

Nurse Kniveton works under the direction of the Luddenden Nursing Association, but she is inspected by the Halifax Inspector of Midwives with regard to midwifery in Halifax Borough, for which the grant is made.

Nurse Kniveton is also subject to inspection by the Inspector of Midwives for the West Riding Authority.

Notification of Births Act 1907.

Number of births Number of births		including births transferred to other districts.	 1,729 1,782
Ratio of notified	to registered		 97 02

Number of stillbirths	96
Number of notified births attended by doctors with or	
without midwives	192
Number of notified births attended by midwives only	485
Number of births notified from the Halifax General	
Hospital	638
Number of births notified from Royal Halifax Infirmary	383
Number of births notified by Nursing Homes	31
Number of births transferred to other districts	453

Infant Welfare Centres.

Northgate-

	Number of	Session	s			201
	New cases					786
	Re-visits					7,177
	Average at	tendanc	e per	Session		39.6
	Percentage		by de	octor at	each	
	Session					58
Queen's	Road—					
	Number of	Session	s			90
	New cases					400
	Re-visits					5,691
	Average at	tendance	e per	Session		67.67
	Percentage		by de	octor at	each	
	Session					45

Ovenden.

A branch Clinic at Ovenden is held in the Methodist Church School on Wednesday mornings each week. The premises are cramped and somewhat cheerless. It is quite likely that increased use would be made of this Clinic if the surroundings were brighter.

Number of	Sessions				44
New cases					158
Re-visits					1,780
Average at	tendance	per Se	ession		44
Percentage	seen b	y doct	or at	each	
Session					54

Birth Control Clinic (Passed by the Council in March, 1934). Since the Voluntary Clinic commenced to operate in the Town the Municipal Clinic has practically ceased to function.

An	te-Natal and Post-Natal Services.	Ante- Natal	Post- Natal
1.	No. of Clinics provided and maintained by the Council	2	2
2.	No. of Clinics provided and maintained by Voluntary Associations	2	1
3.	Total number of attendances at all Clinics during the year	7524	495
4.	Total number of women who attended at the Clinics during the year	1415	484
5.	Percentage of total notified births represented by the total numbers of women shown under 4	01'0	
	under 4	81.8	_

It is encouraging to note that these Clinics are being increasingly used by the independent Midwives, and it is significant to note that 81.8 per cent. of the pregnant women in Halifax attended these Clinics during the year.

The Kirby Leas Ante-Natal Clinic.

This Clinic is now held weekly on Thursday mornings. The work has justified itself and the Clinic has grown in usefulness. My thanks are due to the loyal co-operation of the Matron, Assistant Matron and the Midwives, for encouraging the patients to attend the Clinic and following up those who require special care.

Number of Sessions			 43
New cases			 272
Total attendances	····		 777
Average attendance	per	Session	 18.06
Domiciliary Visits b	y M	idwives	 1,210

Toddlers' Clinic at Northgate.

Number of Sessions	 	 40
Total attendances	 	 321
Average attendance	 	 8

This Clinic is held on Friday afternoons. It is increasing in popularity.

The time is spent in healthy games and exercises, which promote nose breathing, chest expansion, development of plantar arches, etc., and the results are decidedly beneficial.

Artificial Sunlight.

Number of Sessions			133
Number of cases treated			308
Attendances			4,567
Average attendance per			
Attendances of non-tuber	culous chi	ldren	
under School age			3,144
Attendances of non-tuber	culous chi	ldren	
of School age			1,351
Attendances of tubercule	ous childi	en	. 72

This work is steadily increasing. Halifax being such a sunless town, the need for artificial sunlight is never absent. It is hoped that much larger premises will be provided for this work when the projected new Centre is being considered.

The Diphtheria Immunisation Clinic.

During the year, the immunisation arrangements were for administrative reasons, amended; children of school age are now immunised at their own schools, or at the Central School Clinic.

The Clinic at Northgate is now reserved for children under school age, sessions being held weekly, on Friday mornings.

The following Table shows the number dealt with during the year :---

Number	of	new cases treated		68
Number	of	new cases immunised elsewher	е	22
Number	of	Schick Tests		60

The work of the Health Visitors.

Visits to expectant mot	hers :	
First visits		 82
Repeat visits		 263
Infants under 1 year :		
First visits		 1,164
Repeat visits		 4,158
Children 1 to 2 years		 2,604
Children 2 to 5 years		 5,368
Ophthalmia Neonatorun	n	 4
Puerperal Fever and Py	yrexia	 6
Miscellaneous		 141

The attendance of one Health Visitor at the Venereal Diseases Clinic held at the Royal Halifax Infirmary for Women and Children was continued throughout the year under review,

Infant Mortality.

Of the 80 deaths under one year, 53 were boys and 27 girls.

Of these, 44 deaths occurred during the first month.

Of the 44 Neo-natal deaths, 40 died within one week, and of these, 20 died within 24 hours.

Fifty-nine per cent. of the Neo-natal deaths were due to prematurity. This emphasises the need for very special care and attention required by such infants.

In this connection it is interesting to note that the Midwives sought medical aid for 9 cases of infants who were feeble or premature.

Between the ages of 4 weeks and 12 months, diseases associated with the respiratory tract were the most common cause of death 52% of the deaths being due to one of the diseases in this group. Clearly respiratory infection is more to be feared in young infants in this cold climate than is gastro-intestinal infection.

Maternal Mortality.

There have been 3 maternal deaths during the year all over 30 years of age.

GENERAL NOTE.

Every case is investigated and Form 97/M.C.W. completed. I would point out that many deaths are now classified as maternal deaths which in pre-war years would not in the certified cause of death have been bound up with childbirth. As regards environment and childbirth I would submit that childbirth to-day takes place under better conditions as regards environment than it did 20 years ago.

	Sepsis	Others	Total
No. of Deaths	 _	3	3
Rate per 1,000 live births	 	2.3	2.3
,, ,, total ,,	 	2.2	2.2

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
Sepsis Other causes	5 8	3 6	4 8	4	7 4	5 6	4 8	1 7	2 7	
Per 1,000 live births	10.2	6'8	9.2	3.2	8.7	9.4	10.5	6.8	7:5	2.3

The following Table serves to show the fluctuations in this rate during recent years :---

It is encouraging to note the substantial decline in this rate from 10.5 in 1934, to 2.39 in 1937; it is the lowest rate recorded in Halifax for many years.

The following services are in operation in Halifax for the purpose of combating maternal mortality :---

- (a) Ante-natal and Post-natal Clinics at the Maternity and Child Welfare Centre; the Halifax and District Nursing Association (premises now in Savile Road); the Royal Halifax Infirmary, and Halifax General Hospital.
- (b) An adequate supply of competent qualified midwives, who are inspected and supervised by Dr. McDowall.
- (c) The Maternity Homes at the Royal Halifax Infirmary and Halifax General Hospital.
- (d) Laboratory facilities for bacteriological and pathological examinations.
- (e) The provision, free, of sterile maternity outfits, in necessitous cases.
- (f) A service of "Home Helps."
- (g) The supply of Tubercle-free milk, free, to expectant mothers, during the whole period of pregnancy (to necessitous cases).
- (h) Scheme of Assisted Midwifery in necessitous cases and payment of compensation to midwives for cases sent into hospital on medical advice.
- (i) The services of a Consultant Obstetrician.

Midwives' Inspection.

The midwives were regularly inspected during the year, and have discharged their duties satisfactorily. One midwife was reported to the Committee for persistently disregarding—in spite of repeated warnings—her obligation to submit certain notifications to the Local Supervising Authority as required by the rules of the Central Midwives' Board.

A sub-Committee was appointed to enquire into the complaint, but as this was late in December, they had not met at the end of the year.

Under the scheme of Assisted Midwifery, the following claims were received and dealt with :---

Assisted M	idwifery :			
Received				2
Approved				1
Compensati	on :			
Received				-
Approved		,		1
	Received Approved Compensati Received	Approved Compensation : Received	ReceivedApprovedCompensation :Received	ReceivedApprovedCompensation :Received

Home Helps.

The Home Helps have again done useful service, 45 cases receiving attention during the year. Their work has been appreciated by the mothers.

At the time of writing this report there is evidence that the public are at last beginning to realise and to make use of this valuable service.

Inspection of Maternity Homes.

There are two Maternity Homes in Halifax which are subject to inspection, and these have been visited and conditions found satisfactory.

The Maternity Wards of the Royal Halifax Infirmary and of the General Hospital are not subject to registration by the Corporation.

Free Milk Scheme.

An amended scheme for the supply of free milk in necessitous cases and to expectant and nursing mothers, was adopted and put into force in the early part of the year.

The amended income scale brought a greatly increased clientele within the ambit of the scheme.

The weekly quantity supplied to each case was increased, and 9,613 lbs. were issued during the year. One pint of tubercle free milk daily is issued to expectant mothers during the last three months of pregnancy, where the Medical Officer of Health and the Maternity and Child Welfare Medical Officer are satisfied that it is essential on the grounds of health; and 205 gallons were issued during the year.

Staff.

There was no change in staff personnel during the year.

My thanks are due to the whole staff for their unfailing co-operation, cheerfulness and loyalty in this work.

Voluntary Helpers.

We are much indebted to our Voluntary Workers for their most valuable help. Their unselfish service in attending the Clinics regularly throughout the year, has been highly appreciated, and the mothers have been encouraged and cheered by their kindly presence.

In conclusion, I would again point out that our Maternity Scheme now provides for calling in a doctor to assist a midwife, for employing a consultant, and for admitting a patient to Hospital if any emergency should arise.

SECTION 8

*

Orthopædic Service

Report of the Orthopaedic Surgeon

Orthopædic Clinic.

The Orthopædic or Cripple Clinic founded jointly by the Maternity and Child Welfare, Health and Education Committees, has done excellent work. The sessions were originally held in the School Clinic, but as regards the children from the Infant Welfare Centre this was not found successful, as the mothers attended badly. It was therefore arranged that sessions should be held occasionally at the Northgate Centre, and the massage and remedial exercise sessions are also held there. Children requiring operative treatment are now sent to the Halifax General Hospital, so as to be treated by the Orthopædic Surgeon of the Clinic, Mr. F. W. Goyder, F.R.C.S., who has been added to the visiting staff of the Hospital.

I am indebted to Mr. F. W. Goyder, F.R.C.S. (Eng.), Orthopædic Surgeon, for the following report :--

The Orthopædic Surgeon attended on six occasions.

New cases examined					48
Re-examinations					82
Number of children under	er treat	ment on	Dec.	31st,	
1936					42
New cases admitted in 19	37				48
Discharged during year					27
Ceased attendance					15
Remaining under treatmen	t, Dec.	31st, 193	37		48
Attendances of treatment				1	,897

This last number has increased by 385, and during the year the remedial staff have paid an additional visit every week, putting in 566 instead of 500 hours in the year.

As regards operative treatment at the General Hospital, five children were operated upon by the Orthopædic Surgeon, two for deformities following rickets, one for wry-neck, one for reduction of a congenital dislocation of the hip, and one attended on two occasions for manipulation followed by plaster of Paris for club foot.

SECTION 9

*

Mental Deficiency

Mental Deficiency Acts, 1913-1927

Mental Deficiency is caused by a sub-development of the convolutions of the brain, especially in the frontal lobes. The causes are bad heredity and bad environment. The cure, then, is the elimination of degenerate human stock and the improvement of environment. It is a tremendous problem because we are embarrassed by our lack of knowledge of the basic springs of heredity.

Intellectual processes depend upon the elaboration of the supra-granular layer of the cortex, its inadequacy is the proximate cause of mental defect.

St. Catherine's Certified Institution.

By consent of the constituent authorities, your Council has now entered into full membership of the Joint Board of this Institution the previous agreement being in respect of females only. Under the terms of the new agreement, the accommodation allotted to Halifax is as follows :—

Males, High Grade (Adults)			21	Beds
Females, High Grade			23	,,
Males, High Grade (under 16	years	of		
age)			8	,,
Females, Low Grade			4	,,
Males, Low Grade			4	,,
Total			60	,,

Development of this estate is proceeding, and it is hoped that within the next twelve months, accommodation for the low grade children at Craigie Lea will become available.

Name or	Sex of Cases	Ages	Accommodation for		Grade	Remarks
Institution	Received		Males	Females		
Mid-Yorkshire Institution, Whixley, nr. York	Males	Over 16 years	21	-	High	
St. Catherine's, nr. Doncaster	Males	Over 16 years	21	-	High	
		Ďo	4	-	Low	
		Under	8	_	High	
		16 years				
	Females	Do	-	4	Low	
	2 0111100	Over	-	23	High	
		16 years			U	
Gibbet Street, Institution, Halifax	Males and Females	Over 16 years	6	6	Active Medium to Low Grade	
Craigie Lea Certified Institution, Halifax	Males and Females	Under 16 years	16	12	Low Grade excluding Cot or Chair Cases	Accommodation reserved for 4 males & 5 females from the West Riding County Area

The following Table shows the Institutional arrangements provided for the accommodation of local patients :--

Most of the Halifax cases in Gibbet Street Institution have now been transferred to St. Catherine's Certified Institution. Only 4 cases (3 females and 1 male) remain. The certificate at the end of the year was for 6 males and 6 females.

In addition to the above Halifax patients have been placed in the following Institutions :---

> Moss Side Institution, Maghull (1 female transferred by the Board of Control from Rampton State Institution).

Royal Albert Institution, Lancaster.

Rampton State Institution.

Whittington Hall, Chesterfield.

*Girls' Village Home, Barkingside, Ilford.

Stoke Park Colony, near Bristol.

The Home, Everton Terrace, Liverpool.

*The one case from this Institution is on Licence.

The patient on Licence from "The Home" was returned there during the year the licence being cancelled.

The following Table shows the position or 1937 :	n Dec	ember	31st,					
Cases "Subject to be dealt with" :								
In Institutions (excluding cases on	М.	F.	Total					
licence) Under 16	10	6	16					
Over 16	39	31	70					
On Licence from Institutions Under 16		- 1						
Over 16	2	2	, 4					
Under Statutory Supervision	35	39	74					
In receipt of Poor Law Relief : In Public Assistance Institutions not approved under Section 37	_	-	_					
In Institutions certified under the Mental Deficiency Acts (including those ap- proved under Section 37) Placed under Section 3								
Other Cases Number of instances in which Licences	_							
were granted during 1937	1		1					
Number of instances in which cases on Licence have been returned to Institu- tions or transferred to Guardianship during 1937 :								
(1) To Institutions		—						
(2) To Guardianship	-	_						
Cases notified by Local Education Authority (Section 2 (2) :								
Method of Disposal :								
Sent to Institutions by "Order"		1	1					
Placed under Guardianship by "Order"		_						
Placed under Statutory Supervision	7	6	13					
Placed in "Places of Safety "								
Died or removed from the area	_							
Of the total number of mental defectives known to the Local Authority :								
(a) Number who have given birth to child	lren d	uring	1937 :					
(1) After marriage			. Nil					
(2) While unmarried			. Nil					
(b) Number who have married during 193	37		1					

The following visits were paid by the Official Visitor during the year :--

To cases under Statutory Enquiries and reports re h in respect of applicati	nome sur	rounding	s of pat	ients	
Certified Institutions					22
To cases on Licence					0
Other visits (Petitions for	Orders,	Special	Reports	and	
Certificates, etc					31
		Total			211

The particulars given above relate solely to cases under the care of the Statutory Committee, and have nothing to do with children of school age, who, so long as they are capable of receiving benefit from instruction in a special school remain under the care of the Education Committee. Particulars regarding them are to be found in the reports of the School Medical Service published separately, in which the work of the special school at Quarry House is described.

CRAIGIE LEA CERTIFIED INSTITUTION.

This Institution is operated under Licence from the Board of Control, the licence being for a period of 3 years from Dec. 16th, 1931, and is in respect of 28 low grade patients under 16 years of age (16 males, 12 females), excluding cot or chair cases. The Licence has been extended by the Board of Control from time to time.

By agreement with the West Riding of Yorkshire County Council, 9 places are reserved for patients from the County area (4 males, 5 females).

The staff comprises :

- 1 Medical Officer, part time. Non Resident.
- 1 Matron Superintendent. Resident.
- 3 Assistants. (2 Resident, 1 Night Attendant. Non Resident).
- 1 Cook. Non Resident.
- 1 Cleaner. Non Resident.
- 1 Handyman. Non Resident.

Several of the children have received dental treatment during the year.
Training, of a simple character suited to the limited mental capacity of the patients is carried on.

With the exception of one patient who suffered from an attack of Broncho-pneumonia, for which he received treatment at the Halifax General Hospital and made a good recovery, the health of the children was satisfactory throughout the year

The question of closing this Institution had been under consideration on several occasions. It was finally decided to do so, the West Riding patients being handed over to the County Authority in two parties on December 18th and 20th respectively. The Halifax patients were transferred to St. Catherine's Certified Institution, Doncaster, on December 21st.

SECTION 10

*

Vaccination

The Vaccination Acts 1867-1898, and the Vaccination Act 1907

The duty of administering these Acts has been delegated by the Council to the Health Committee.

The Borough has been divided into 7 Vaccination Districts, and the following Table shows the constitution of the districts, together with the names and addresses of the Public Vaccinators :--

District. No. 1. Copley Ward.

- No. 2. Central, Pellon, Southowram, East, South, Kingston, West and Skircoat Wards.
- No. 3. North and Akroydon Wards.
- No. 4. Illingworth and Ovenden Wards.
- No. 5. Northowram Ward.
- No. 6. Warley Ward.
- No. 7. The Halifax General Hospital and Gibbet Street Institution.

Public Vaccinator. Dr. H. W. Morck, Orrell House, Sowerby Bridge.

- Dr. P. Milnes, Arden Lodge, Halifax.
- Dr. A. Garvie, Woodlands, Halifax.
- Dr. J. Morrison, Oak Leigh, Halifax.
- Dr. J. J. Murphy, 50, West End, Queensbury.
- Dr. C. S. Ogilvy, Wood Bank, Luddenden Foot.
- Dr. R. Davidson, Woodgate, Halifax.

Stated quite briefly, the Acts make it obligatory—unless a statutory declaration of conscientious objection is made—upon all parents to have their infants vaccinated before they attain the age of six months.

The following short summary outlines the main provisions of the Acts, and indicates the lines of local procedure.

NOTES ON VACCINATION PROCEDURE.

- Form A. This is handed by the Registrar to the person registering the birth. It contains :--
 - (a) Form of statutory declaration of conscientious objection to vaccination. It must be completed and returned before the child attains the age of 4 months.
 - (b) Medical certificate of postponement of vaccination owing to the state of the child's health. Postponement must

not exceed two months from the date, of certificate, but may be renewed from time to time.

- (c) Medical certificate of postponement of vaccination owing to the condition of the house, or recent prevalence of infectious disease in the district. This also must not exceed two months.
- (d) Medical certificate of insusceptibility to successful vaccination, or of child having had smallpox. The number of times unsuccessfully vaccinated must not be less than three.
- (e) Medical certificate of successful vaccination must be completed and returned before the child attains the age of 6 months.
- Form Q. If Form A has not been received by the Vaccination Officer before the child reaches the age of 3 months 8 days, Form Q is sent reminding the parents that they have still 3 weeks in which to complete and return the form.

NOTE.—The 8 days is not a statutory period of grace. [Steps must have been taken under either (a), (b) or (c), before the child reaches the age of 4 months]. It is a period allowed to parents to complete and return the Form. It was considered to be somewhat arbitrary to place persons in default, who, having complied with the requirements of the Act within the statutory period, neglected to return the Form for a day or two.

- Form H. This Form contains the names, addresses, etc., of those who have failed to secure exemption. It is completed by the Vaccination Officer and sent to the Public Vaccinator, whose duty it is, within 4 weeks, to call and offer vaccination.
- Form K. This is a final notice sent to parents who have failed to have their child vaccinated, and gives them 14 days in which to comply. Failure to do so places the parent in default and the matter is reported to the Health Committee.

The following figures are extracted from the Return which was prepared for the Registrar General :--Number of births returned in the "Birth List Sheets" 1,547 No. of these births duly entered by 31st January, 1938, in Cols. I., II., IV. and V. of the Vaccination Register, viz. :--Successfully vaccinated 202 Insusceptible of vaccination 3

	Had Smallpox No. of Statutory declarations of conscientious	Nil
	objection Died unvaccinated	1,140 109
No	. of these Births which on 31st January, 1938, re- mained unentered in the Vaccination Register on account of :	
	Postponement by Medical Certificate Removed to other Districts (V.O.'s duly apprised) Removed to places unknown, cannot be reached	9 21
	or unfound	21
No	. of these Births remaining on 31st January, 1938, neither duly entered on Vaccination Register nor tem- porarily accounted for in Report Book	42
То	tal number of Certificates of successful primary vaccin- ation of children under 14 received during the Calendar Year 1937	237
No	o. of Statutory Declarations of Conscientious Objection, irrespective of the dates of birth of the children to which they relate, during the Calendar Year, 1937	1,322
No	of children successfully vaccinated after declaration of Conscientious Objection had been made	6
No	of Certificates of successful primary vaccination of children under 14 sent to other Vaccination Officers	4
	The following Table shows the number of persons suc	cess-

The following Table shows the number of persons successfully vaccinated and re-vaccinated at the cost of the rates, by the Public Vaccinators during the year ended 30th September, 1937 :---

No. of successful primary	vaccinati	ons of	person	s :—	
Under 1 year of age				124	
One year and upwards				29	
	Total			153	

No. of successful re-vaccinations of persons who have been successfully vaccinated at some previous time

It is pleasing to note that parents are now carrying out their obligations, either by making the statutory declaration of conscientious objection or by taking steps to have their children vaccinated within the statutory period.

3

That the policy of instituting proceedings against those in default was justified is shown by the fact that in no instance was it found necessary to resort to summary proceedings during the year.

SECTION 11

*

Transferred Poor Law Services :

(a) Children Act 1908. Part I as amended by

> Children and Young Persons Act 1932. Part V

(b) Boarding Out (Children under 5 years of age)

Children Act, 1908. Part I Children and Young Persons Act 1932. Part V

The duties and powers under Part I. of the Children Act, 1908, as amended by Part V. of the Children and Young Persons Act, 1932, are administered by this department.

It is the duty of the local authority to appoint infant protection visitors to visit from time to time to satisfy themselves as to the proper nursing and maintenance of such infants, or to give necessary advice or directions thereon.

The following is a summary of the work carried out during the year :--(a) Number of foster parents on the Register :---At the end of the year 12 (b) Number of children on the Register :---(i) at the end of the year (ii) who died during the year 12 ... ---(iii) on whom inquests were held during the year ... --(c) Number of Visitors at the end of the year who were : (i) Health Visitors 6 (ii) Female, other than Health Visitors 1 (iii) Male (d) Number of persons or societies authorised to visit under the proviso to Section 2 (2) of the Act of 1908 --(e) Number of cases (if any) in which proceedings were ...None taken during the year (f) Number of cases in which the Local Authority has given a sanction during the year :---(i) Under (a) of Section 3 of the Act of 1908 ... (ii) Under (b) of Section 3 of the Act of 1908 ... (iii) Under (c) of Section 3 of the Act of 1908 ... Total ---(g) Number of orders obtained during the year under Sec. 67 of the Act of 1932 :--(i) From a Court of Summary Jurisdiction (ii) From a single Justice Total ---

Boarding-Out of Children

(Under 5 years of age)

The Council's administrative scheme under the Local Government Act, 1929, made Maternity and Child Welfare a "declared" service; therefore duties under the above Order in respect of children under 5 years of age were imposed upon the department.

The following statement shows the position at the end of the year :--Males Females Number on Register, Jan. 1st, 1937 1 ---Added during the year Transferred to the care of the Education Committee on attaining the age of 5 years ... ---.... Remaining on Register, Dec. 31st, 1937 ... 1

Two children were sent to the Moorfield Convent, Preston.

The children were visited, the homes, bedding, and clothing were inspected at regular intervals, and enquiries were made to ensure that the rules as laid down in the Order were duly observed.

The children showed evidence of exceptional care and attention on behalf of their foster parents, and it was not found necessary to take punitive action in any case.

The health of the children at the Moorfield Convent, Preston, remained good throughout the year.

My thanks are due to Mr. Butler, the local Inspector of the National Society for the Prevention of Cruelty to Children, for his courteous and valued co-operation during the past year.

Forty-five children were admitted to the Nursery at Gibbet Street Institution for varying temporary periods, mainly on account of domestic difficulties.

Two homes were visited and reports submitted on behalf of the National Adoption Society, and one on behalf of the Waifs and Strays' Society.



SECTION 12

*

Public Health Propaganda

Health Education & Propaganda

Health Education is a primary duty of any Public Health Department. Cooperation of the citizens is necessary if preventive medicine is to achieve all it sets out to do. Propaganda work has continued in Halifax throughout 1937, and the following Table briefly sets out some of the more important lectures delivered to the Public.

Date 1937	то	TITLE	ВҮ	No. of Audiens (Appro:
Jan. 7	National Amalgamated Union of Life Assurance Workers	Housing and its Relation to Health	Mr. Beaumont, C.S.I.	15
Feb. 7	Y.M.C.A.	The Smoke Problem	Mr. Beaumont, C.S.I.	25
,, 12	Sessional Meeting of Royal Sanitary Institute	Housing—Past, Present and Future	Mr. Beaumont, C.S.I.	200
,, 13	Sessional Meeting of Royal Sanitary Institute	The future rôle of the Fever Hospital	Dr. Roe	200
,, 18	Senior Girls, Siddal School	How to be Healthy on growing up	Dr. Heynemann	60
,, 21	Northgate End Chapel	Biology	Dr. Roe	20
Mar. 2	The College of Nursing	Cancer	Dr. Roe	50
4	Belle Vue Men's Parliament	Glands	Dr. Roe	70
	St. Augustine's Men's	A day in the life of a	Mr. Beaumont,	10
", "				10
	Institute	Sanitary Inspector	C.S.I.	50
,, 11	Sowerby Bridge Council of Social Welfare,	Light Treatment	Dr. MacDonald	50
,, 18	Union of Life Insurance Workers	Rheumatism	Dr. Roe	50
,, 18	Warley Parents & Teachers' Association	Respiratory Diseases	Dr. Roe	60
Apr. 8	General Practitioners— Annual Meeting at Fever Hospital	Immunisation	Dr. MacDonald	15
,, 11	Adult Class, Northgate End Chapel	Housing-State or Private Control	Mr. Beaumont, C.S.I.	5
,, 28	Rotary	Air Raid Precations	Dr. Roe	40
28	Women's Co-op. Guild	Minor Maladies	Dr. Roe	25
June 30	Senior Girls, Moorside School	How to be Healthy on growing up	Dr. Heynemann	55
July 6	Warley Road Parents	Diphtheria	Dr. MacDonald	200
Sept. 10	Senior Girls, Haugh Shaw School	How to be Healthy on growing up	Dr. Heynemann	100
Oct. 15	Park Congregational Church	Eugenics (Illustrated)	Dr. Roe	30
10	St. Hilda's Group	Air Raid Precautions	Dr. Roe	50
26	St. John Ambulance Brigade	Germs and Men (Illus.)	Dr. Roe	120
. 28	Belle Vue Parliament	Heredity	Dr. Roe	80
		Immunisation	Dr. MacDonald	100
,, 28	Warley Parents & Teachers' Association			
Nov. 3	Halifax Labour Party (Men's Section)	Slum Clearance	Mr. Beaumont, C.S.I.	15
,, 16	Senior Girls, Princess Mary High School	How to be Healthy on growing up	Dr. Heynemann	120
,, 23	Workers' Educational Assoc., Luddenden Foot	Public Agencies for the Prevention of Disease	Dr. Roe	100
Dec. 7	St. Hilda's Class	Cancer	Dr. Roe	30
,, 14	Men's Fellowship, St. Thomas' Church	Public Health Administra- tion	Mr. Beaumont, C.S.I.	10
,, 16	Ovenden Senior School	How to be Healthy on growing up	Dr. Heynemann	250

GENERAL NOTE.—M.O.H. possesses a lantern and cinema which he uses in connection with this work. A large number of health leaflets, brochures, posters and pictures are used. 1,000 copies of Better Health are issued monthly. There are two Wayside Health Pulpits in the town; one in George Square and one in Northgate.

SECTION 13

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Milk Production Food Inspection Farms Offensive Trades

Inspection and Supervision of Food

Milk Supply.

I am indebted to Mr. J. Pollard, the Veterinary Inspector, for the following report :---

Milk and Dairies (Amendment) Act 1922.

Statutory Notices were served on two cowkeepers to correct inadequate lighting and ventilation.

Bacteriological Examination of Samples.

Total number of samples taken for bacteriological	l exam-	
ination as an index of general cleanliness		120
Number of Graded samples		95
Number of Ordinary samples		25
The following alterations were carried out :		
Alterations to cowsheds for light and ventilation		3
Alterations to cowsheds for floors		3
Dairies provided		—
Visits to farms		880
Number of cows examined		3,119

Tuberculosis Order-Diseases of Animals Acts.

Number of reports		 	12
Number of reports confirmed		 	11
Tuberculosis of the Udder		 	19
Microscopical examination of milk		 	11
Number cytology suggestive of tube	rcle	 	5
Number submitted for biological tes	st	 	11
Number reported positive		 	3
Number of cattle examined		 	343

Meat.

Private	Slaughterhouses	(Registered)	 	 5
	Do	(Licensed)	 	 0

5

82

The approximate number of cattle slaughtered therein during the year is as follows :---

Cattle.	Calves.	Sheep and Lambs.	Pigs.
260	20	1090	280

Meat Inspection.

The following Table shows the number of visits paid to the slaughterhouses, butchers' shops, markets, etc. :--

Description of Premises				Number of Visits
Public Slaughterhouse				804
Private Slaughterhouses	S			196
D 1 M. 1.4				436
Wholesale Market				238
Lairages				197
Potted Meat Houses				210
Tripe Boiling Houses				128
Butchers' Shops				1508
Auction Mart				62
Other Visits				358
	Total			4,137

The following Table shows the number of animals slaughtered during the year and the number condemned :--

	Cattle.	Calves.	Sheep and Lambs.	Pigs.	Total.
Number of Animals slaughtered at the public slaughter- house	8844	1955	22129	5731	38659
Do. condemned.	85	9	11	51	156

In addition to ordinary routine examinations of animals slaughtered, the following special examinations were made, with results as set out below :---

	Cattle	Sheep and Lambs	Pigs	Calves
Whole carcases condemned	85	11	51	9
Carcases of which some part or organ was condemned	200	_	172	-

The following Table shows the total Approximate weight of meat and offals destroyed on account of tuberculosis, and from other causes :---

Total Amount of Meat Destroyed		lbs. 68683
Total Amount of Offals Destroyed		13626
Total Amount of Meat Destroyed on account Tuberculosis	of	62862
Total Amount of Offals Destroyed on account Tuberculosis	of 	10788
Total Amount of Meat Destroyed from other cau	ses	5821
Total Amount of Offals Destroyed from other ca	uses	2838
Total Meat and Offals Destroyed		82309

Kinds of Food 1	Quantity in lbs.		
85 Carcases of Beef		 	47890
Beef not in Carcase		 	13736
9 Carcases of Mutton		 	371
2 Carcases of Lamb		 	60
51 Carcases of Pork		 	5100
Pork not in Carcase		 	1156
9 Carcases of Veal		 	370
Rice Flour		 	672
Fish		 	1748
Fruit and Vegetables		 	9583
Canned Provisions		 	274
Boiled Ham		 	10
Total	Weight	 	80970

It was found necessary to obtain a Justice's Order in one instance.

Legal Proceedings.

Legal proceedings were instituted during the year for the following contraventions :---

	Penalty
Failure to place milk in covered receptacle after milking	£1
Failure to cause cowsheds to be thoroughly cleansed	£5
Failure to cleanse cow before milking	£1
Obstruction (Maximum Penalty)	£5
Dirty Cowshed	£2
Failure to cause milk vessels to be kept in a state of	
thorough cleanliness	£20

Offensive Trades.

These premises have been visited regularly during the year.

Complaint in respect of one business was investigated. Improved mechanical equipment was at the time being installed to obviate, as far as possible, cause for further complaint.



SECTION 14

*

Sanitary Circumstances Housing Food Sampling

Milk

(Retail Supply and Distribution)

Smoke Abatement

Atmospheric Pollution

Sanitary Circumstances

AND

Sanitary Inspection of the Area

I am indebted to Mr. J. W. Beaumont, Chief Sanitary Inspector, for the following report :--

Inspections and Visits.

Dwellinghouses :--

Recorded Inspections—Ho Overcrowding Other inspections and vis Complaints Infectious Disease Dirty and/or Verminous Other inspections Cellar Dwellings and Und Tents, Vans, Sheds, etc. Common Lodging Houses Houses let in Lodgings	 iits un 	 der Housin 		 1294 707 2010 342 320 114 857 11 3 8 71
Drainage :				
Drains inspected, etc.				 1058
Drains tested				 435
			-	
Factories and Workshops :	_			
Fastorias				37
Woulschous				 110
Workplaces				 - 2
Bakehouses				 298
Outworkers' Premises				 178
outworkers Tremises				 110
Shops (Shops Act, 1934) :				
Sanitary or other arrange	ments	(Sec. 10)		 5
Food Inspection :				
Dairies and Milkshops				 335
Ice Cream Premises				 277
Fried Fish Shops				 233
Restaurant Kitchens				 13
Other Food Premises				 26

Smoke Abatement :			
Smoke Observations			 325
Visits to Works re Smoke			 161
Sampling :			
Food and Drugs (Adulteration) Act	t, 1928		 449
Bacteriological Examination-Milk			 291
", Jce C Biological Examination—Milk Water Analysis and Bacteriologica	ream		 57
Biological Examination-Milk			 100
Water Analysis and Bacteriologica	l Exam	ination	 37
Fertilisers and Feeding Stuffs Act,	1926		 18
Rag Flock Acts, 1911 and 1928			 1
Pharmacy and Poisons Act, 1933			 1
General :			
Complaints (Rats)			 30
Nuisance from Stables			 15
Accumulations of Manure, Refuse,	etc.		 44
Swine, Fowls and other animals			 18
Schools			 3
Theatres, Cinemas, etc			 111
Pharmacy and Poisons Act, 1933			 213
Public Sanitary Conveniences			 30
Miscellaneous Visits	•••		 1096
Total number of Inspections and Visi	its		 11744
Total number of re-Inspections			 2785

Sanitary Improvements Effected.

Dwellinghouses :		formal Action	Formal Action
Dampness remedied		202	
Lighting provided or improved		24	1
Ventilation provided or improved		87	1
		47	
Cooking accommodation provided or improved.		59	-
Washing accommodation provided or improve			
Sinks provided		251	1
		253	
Floors relaid or repaired			2
Eaves gutters or fallpipes provided or repaire	d	159	4
Sanitary accommodation provided or improved.		33	1
		28	1
		16	
		289	2
		2	4
		2	
		1	
Miscellaneous sanitary defects remedied .	• •	202	3

Drainage :			ormal ction	Formal Action
Drains constructed or re-constructed	I		197	1
Drains repaired or cleansed				
Factories and Workshops (including I	Bakehou	uses) :		
Cleansed and limewashed			17	1
Ventilation provided or improved			1	
Floors drained			1	
Other nuisances abated			17	1
Sanitary accommodation improved			2	
Bakehouses cleansed and limewashee	d		8	-
Bakehouses otherwise improved			3	
Shops (Shops Act 1934, Sec. 10) :				
Separate sanitary accommodation for	sexes	pro-		
vided			1	
Sanitary accommodation improved			1	
Common Lodging Houses :				
Cleansed and limewashed			16	
Other improvements effected			1	
other improvements encered			-	
Houses Let in Lodgings :				
Nuisances abated			6	
Other improvements effected			4	
Dairies and Milkshons				
Dairies and Milkshops :				
Cleansed and limewashed			1	
			2	
New dairies provided			1	
Ice Cream Premises :				
Cleansed and limewashed			5	
Provision made for sterilising utensil			1	-
Other improvements effected	·		3	
New premises provided			11	
Fried Fish Shops :				
Cleansed and limewashed			7	
Other improvements effected			6	
New premises provided			1	
Other Food Premises				
(including Restaurant Kitchens) :				
			3	
Other improvements effected			1	
other improvements enceted			-	

Smoke Abatement :	formal ction	Formal Action
Boiler Plants improved	 3	
	 3	
General :		
Sanitary condition of stables improved	 1	1
Manure and/or Refuse accumulations remov Swine, Fowls and other animals-Nuisance		1
abated	 10	1
Sanitary condition of Theatres, etc., improved	2	
Public Sanitary Conveniences improved	1	
Miscellaneous sanitary improvements effected		

Statutory Action.

Matters reported to the Health and Housing Committees for Statutory Action were as follows :---

Housing Act, 1936.

Disrepair and/or Sanitary Defects (Sec. 9)	1 house
(Sec. 11)	42 houses
(Sec. 25)	1139 houses
Causing overcrowding (Sec. 59)	2 cases
Permitting overcrowding (Sec. 59)	1 case
Failure to give information in Rent Book	
(Sec. 4)	1 case
Failure to give information in Rent Book	
(Sec. 62(1)	46 cases
Re-letting house after Clearance Order had	
become operative (Sec. 155(3)	1 case
Failure to give information re Ownership	
(Sec. 168)	2 cases

Public Health Act, 1875.

Cellar Dwellings illegally of	ccupied (Secs. 72
and 73)	
Premises in such a state,	etc. (Secs. 91 & 94) 3 houses
,, ,, ,, ,,	(Secs. 91 & 94) 1 workshop
,, ,, ,, ,,	(Secs. 91 & 94) 1 stable nuisance (Secs. 91
Accumulation or deposit a	nuisance (Secs. 91
	1 works
Premises in dirty condition	n and keeping pigs
in contravention of Bye	laws (Secs. 44 & 91) 2 pigstyes
Defective and overflowing	cesspool (Secs. 91
and 94)	1

Public Health Act, 1936.

Premises in such a state, etc. (Secs. 92 & 93) 2 houses

Public Health Act, 1875.Sections 91 and 94.Public Health (Smoke Abatement) Act, 1926.Section 2.Black Smoke nuisances......1 factory

Public Health Act, 1936. Sections 101 and 104. 4 factories

Food and Drugs (Adulteration) Act, 1928. Section 2. Selling milk deficient in fatty solids ... 9 retailers Selling milk deficient in non-fatty solids ... 2 retailers Selling potted meat with excess of moisture ... 3 retailers

Milk and Dairies (Consolidation) Act, 1915. Section. 1. Milk and Dairies Order, 1926. Articles 14(1) and 32.

Depositing milk where likely to become contaminated and not taking reasonable precautions to prevent same ... 1 retailer

Milk and Dairies (Consolidation) Act, 1915. Secs. 1 and 19. Milk and Dairies Order, 1926 Article 31(2),

Bottling milk in street 5 retailers

Date of Hearing	Act	Offence	Penalty
20/1/37	Food & Drugs (Adul- teration) Act, 1928. Section 2.	Sale of Rum 39.7° under proof and con- taining 7% added water	Retailer fined $\pounds 2$
28/1/37	Pharmacy & Poisons Act, 1933. Section 18(i), (b)(ii) & (c)(iv)	unregistered premises	
16/3/37	Food & Drugs (Adul- teration) Act, 1928. Section 2.		Producer-retailer fined $\pounds 3$ and $\pounds 1/1/-$ costs
16/3/37	Do	Do 2 charges	Producer-retailer fined $\pounds 3$ in each case.
8/4/37	Do	Do	Retailer fined £5 and $\pounds 1/1/\cdot$ costs.
8/4/37	Do	Sale of milk deficient in non-fatty solids	Retailer fined $\pounds 2$.
8/4/37	Do	Do	Retailer fined £5.
13/4/37	Housing Act, 1936. Section 155.	Refusal to vacate house subject to a Clearance Order.	Court made an Order for possession.
13/4/37	Do	Do	Court made an Order for possession

Prosecutions during 1937.

Prosecutions during 1937-Continued.

Date of Hearing	Penalty	Offence	Act
29/4/37	Food & Drugs (Adul- teration) Act, 1928. Section 2.	Sale of milk deficient in non-fatty solids	Retailer fined $\pounds 5$.
2/6/37		Bottling milk on other than registered prem- ises. (Street).	Case against retailer dismissed on pay- ment of 5/- costs.
2/6/37	Do	Do	Retailer fined f_1 .
2/6/37	(Consolidation) Act, 1915. Section 1. Milk and Dairies	Depositing milk in place where it is liable to become contamin- ated or infected and not using all practi- cable precautions for preventing the milk from being unnecess- arily exposed to heat and from being con- taminated by dirt, dust, rainwater or otherwise.	Case against retailer dismissed on payment of 4/- cost.
20 7/37 21/7/37	Housing Act, 1936. Section 168.	Failure to give in- formation as to nature of interest in property.	Defendant given 24 hours in which to supply information, and on following day $(21/7/37)$ fined 10/-
21/7/37	Food and Drugs (Ad- ulteration) Act, 1928. Section 2.	Sale of milk deficient in fatty solids.	Case against retailer dismissed on techni- cal objection which was sustained.
7/10/37	Do	Do	Retailer fined $\pounds 4$ and $\pounds 1/1/-$ costs
26/10/37	Public Health Act, 1875. Sections 44 & 91(1), (3) and (4).	Pigs kept contrary to Byelaws and so as to be a nuisance.	Defendant fined $\pounds 1$ in respect of each of three charges. Total $\pounds 3$.
26/10/37		Bottling milk on other than registered prem- ises. (Street).	Retailer fined $\pounds 1$.
26/10/37	Public Health Act, 1875. Section 73.	Allowing a cellar dwelling to be unlaw- fully occupied as a separate dwelling	Two cases against defendant dismissed on payment of 4/- costs in each case.
26/10/37 23/11/37	Do	Continuing to unlaw- fully occupy a cellar dwelling as a separate dwelling	Case adjourned until 23/11/37 to give de- fendant further op- portunity to vacate. At adjourned hearing case dismissed on payment of 4/- costs.

Date of Hearing	Act	Offence	Penalty
26/10/37 2/11/37	Public Health Act, 1875. Section 73.	Continuing to unlaw- fully occupy a cellar dwelling as a separate dwelling.	Case adjourned until 2/11/37 to give defen- dant further oppor- tunity to vacate. At adjourned hearing case dismissed on payment of 4/- costs.
26/10/37	Housing Act, 1936. Section 62(1).	Failure to provide in prescribed form sum- mary of sections 58, 59 and 61, and a state- ment of "permitted number."	Case dismissed on payment of 4/- costs.
Do	Do	Do	Do
Do	Do	Do	Do
Do	Do	Do	Do
Do	Do	Do	Do
Do	Housing Act, 1936. Section 168.	Failure to give in- formation as to nature of interest in property	Do
2/11/37	Milk and Dairies (Consolidation) Act, 1915. Secs. 1 & 19. Milk and Dairies Order, 1926. Article 31(2).	Bottling milk on other than registered prem- ises. (Street).	Retailer fined £1/10.

Prosecutions during 1937-Continued.

Factories and Workshops.

Factory and Workshop Act, 1901. Public Health Acts Amendment Act, 1890. Section 22. Halifax Corporation Act, 1900. Section 130.

The number of workshops on the register at the end of the year was 138.

Inspections made were as follows :--Factories 37; Workshops 408 (including 298 visits to bakehouses); Workplaces 2; Outworkers' premises 178. Total 625.

H.M. Factory Inspector sent 8 notices under Section 5 of the Factory and Workshop Act, 1901, of which 6 referred to factories and 2 to workshops.

Complaints dealt with during the year numbered 5, of which 4 referred to factories and 1 to workshops.

There were no offences respecting outwork in unwholesome premises, Section 108.

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	2	h	0	
	a	U.	16	

Inspection of Factories, Workshops and Workplaces.

	Number of				
Premises	Inspections	Written Notices.	Occupiers Prosecuted		
(1)	(2)	(3)	(4)		
Factories (including Factory Laundries)	37	£	-		
Workshops (including Workshop Laundries)	408	1	-		
Workplaces (Other than Outworkers' Premises)	2	-	-		
Total	447	7	_		

Table 2.

Defects found in Factories, Workshops and Workplaces.

Particulars	Nun	Number of offences in respect of which		
(1)	Found (2)	Remedied (3)	Referred to H.M. Inspector (4)	Prosecutions were instituted (5)
Nuisances under the Public Health Acts—*			11 Mar	
Want of cleanliness	26	26		
Want of ventilation	1	1		
Overcrowding				
Want of drainage of				
floors	1	1		
Other nuisances	20	20		
Sanitary Accommodation: Insufficient				
Unsuitable or defective	2	2		
Not separate for sexes	2	2		
Offences under the Factory and Workshop Acts— Illegal occupation of	2	4		
underground bakehouse (Sec. 101)				
Other offences				
Total	52	52		

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

Bakehouses.

Factory and Workshop Act, 1901. Ministry of Health Act, 1919. S.R.O. 958 of 1926.

The number of bakehouses on the register at the end of the year was 106, which includes 57 factory bakehouses.

There were 298 inspections made during the year and the premises were found to be in a satisfactory condition.

SMOKE ABATEMENT.

Public Health Act, 1875. Public Health (Smoke Abatement) Act, 1926. Halifax Corporation Black Smoke Byelaw, 1928.

The number of smoke observations taken of other than domestic chimneys during the year was 325, details of which are given in the following Table. Visits to works in connection, with smoke emission were made on 161 occasions, and the black smoke byelaw was transgressed upon 14 occasions.

An examination of the following Table shows that for the third year in succession there has been an increase in the amount of black smoke emitted per observation. On this occasion the increase amounts to more than 40 per cent. of the emission last year, although it still averages only 0.823 minutes per observation of thirty minutes, and is thus well within the byelaw limit of three minutes per half-hour.

It cannot, on this occasion, be pleaded that the increase is due to any increase in the trade of 1937 over that of 1936, and apart from any special circumstances which in some cases do exist, it would seem that continued apathy on the part of many manufacturers to the cause of smoke abatement, is a primary reason for smoke nuisances.

Domestic Smoke.

In this connection the power of example is the only one which Local Authorites may exercise, as there is no legislation dealing with domestic smoke. As mentioned in the last Annual Report, the Housing Committee of the Corporation has endeavoured to make its own contribution towards a reduction in the emission of domestic smoke, by providing special coke-burning grates in lieu of those designed to burn coal. They have continued this policy so that there are now over 700 houses in which these grates have been, or will be, provided. Unfortunately, however, they have at last been driven to abandon this policy and return to the original coalfired grates, owing to the fact that almost the whole of the tenants occupying houses fitted with these special grates, continue to burn coal, despite the fact that it is much more expensive in view of the fact that extra draught has been provided for in the coke grate. A recent enquiry in which over one hundred houses were visited disclosed the fact that in only one case was coke used exclusively, whilst in 83 cases coal only was used. In view of what has already been stated, this is not only disappointing, but extraordinary. The quality

of the coke produced in Halifax and the methods of marketing same—a weekly delivery to all parts of the Borough—is not exceeded and rarely equalled in any other district. It is regrettable but true, that in those districts where smoke abatement is most necessary, there is on the part of the general public most apathy respecting such matters as atmospheric pollution. There are few, indeed, who do **not** realise the importance of having pure and clean food to eat, but few indeed who **do** realise the importance of having clean air to breathe.

Since when has the respiratory tract been regarded as of less importance than the digestive one?

Concernance of the second s					
CHIMNEY				No. of Observa- tions (30 minutes	Average minutes of black smoke per Observation
(1)				each) (2)	(3)
Ackroyd & Ashworth, Garden	St Ntl	,		2	Nil
Adalada Course Mills		1.		1	Nil
111 . C 10'11				2	Nil
A11.1				3	0.20
				2	
A .1 TO '1 XX7 1					Nil
	•••		•••	1	Nil
				4	3.75
				2	0.52
				2	0.20
				2	1.22
				3	1.33
				1	Nil
Billinghay Mills				1	Nil
Binner's Boiler Works .				1	Nil
Blackwood Mills				2	Nil
Bottoms Mill				4	Nil
Bowling Dyke Dyeworks .				4	Nil
D P DI MOU				7	2.28
70 1 1				1	1.20
				3	1.66
D 9 1 3 5 11				2	Nil
Calder & Hebble Navigation	n Co			2	0.75
Canal Works	u 00.			1	Nil
Cinder Hill Fireclay Works				1	1.20
				2	1.0
	••			2	Nil
	••	•••			
				1	Nil
				1	1.0
				1	2.20
				2	Nil
				3	0.16
Dean Clough Mills (Brick)				9	1.61
Dean Clough Mills (Stone)				9	1.38
Dunkirk Mills				2	Nil
Eastfield Mill				3	Nil
			1	14	

Smoke Observations, 1937.

Smoke Observations, 1937-Continued.

(1)		(2)	(3)
Economic Laundry		1	Nil
1 1 1 1 1 1 1 1 1 1	••••	2	0.20
No. 1	••••	1	Nil
C11 1 3 F111		5	1.10
a 1 111 a 1 1 1 1 1	••••	4	Nil
Goodall's, Salterhebble	••• •••		
Grove Mill	••••	1	Nil
fidicy fill Mills		5	2.30
Halifax Corporation-			3711
Battinson Road School		1	Nil
Electricity Works (Stone)	•••• •••	1	Nil
Electricity Works (Brick)	••••	1	Nil
General Hospital		2	Nil
Gibbet Street Institution	••••	2	Nil
Isolation Hospital, Northowram		2	Nil
Salvage Works		1	Nil
Sewage Disposal Works		3	0.66
Woodside Baths		2	Nil
Halifax Ice and Cold Storage Co)	3	0.16
Halifax Steam Laundry		2	Nil
Hanson Lane Mill		9	. 3.22
Hare Street Mills		2	Nil
Hartley's Malleable Fittings Works		1	Nil
Hebble Mills		2	Nil
Highroad Well Works		2	2.75
Holmfield Brickworks		1	1.0
Holmfield Mills (Brick)		1	0.20
Holmfield Mills (Stone)	*	1	Nil
Horley Green Brickworks		2	1.0
Horley Green Mill		3	Nil
Illingworth Mill		1	1.0
Jackroyd Mill		2	0.20
Keighley Mills		3	4'83
Kingston Mills		1	Nil
Kingston Works		1	1.20
Ladyship Mills		12	0.66
Law & Crossley's Stores		2	Nil
Lee Bank Mill		15	0.10
Miall Street Mills (North)		2	Nil
Miall Street Mills (South)		2	Nil
Mile Thorn Works		1	Nil
Mixenden Carbonising Company		1	Nil
New Mill, Wainstalls	•••	1	Nil
Old Lane Dyeworks		-	1'07
Ovenden Wood Brewery		20 2	Nil
Pellon Lane Mills		1	Nil
Pellon Lane Mills Perseverance Mills			
Perseverance Mills Pioneer Iron Works		3	Nil
Providence Scop Works		1	Nil
Providence Soap Works	••••	2	Nil
Queen's Road Chocolate Factory	•••• •••	1	Nil
Queen's Road Mill	••• •••	2	0.75
Raglan Works	••••	2	Nil
Raglan Street Dyeworks (Brick)		2	Nil
Raglan Street Dyeworks (Stone)		1	Nil
Regent Works		2	1.25
Royal Halifax Infirmary	••••	1	Nil
Royal Mills		1	Nil
Ryburne Mills		5	0.00
Salterhebble Mills		3	1.0

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(1)			(2)	(3)
Savile Mills		 	2	Nil.
Sedburgh Mills		 	5	1.20
Shaw Lodge Mills		 	5	1.10
		 	1	Nil
Shroggs Wire Works (Round	(b	 	3	0.20
Shroggs Wire Works (Squar	e)	 	5	0.00
Smith Messrs. T. & W.,	Dvers	 	3	1.33
Spring Edge Works		 	3	0.66
Spring Hall Mill		 	4	0.22
Spring Mill		 	2	Nil
Square Mills, Wainstalls		 	1	Nil
Stone Trough Brewery		 	5	2.20
Stoney Royd Mills			5	0.70
Sunlight Laundry		 	1	Nil
		 	4	1.20
(T)1 T)		 	3	
The Brewery Trafalgar Mills		 	3	Nil
TT '		 	5	0.83
Victoria Milla		 	1	3.0
		 	6	0.91
Warley Springs Dyeworks		 	1	Nil
Waterside Works (Brick)		 	2	1.22
Wellington Mills		 	6	1.0
West Croft Mills		 	1	3.20
West Grove Mills		 	2	Nil
West End Cabinet Works		 	4	0.20
Wheatley Dyeworks		 	2	1.0
Total		 	325	0.823

Smoke	Observations,	1937-Continu	ed.
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Atmospheric Pollution Records.

Throughout the year we have maintained observations at our existing stations, and have obtained monthly records of deposited atmospheric pollution (Tables 1 and 2), sulphur pollution (Tables 5 and 6), and daily records of daylight measurement (Tables 3 and 4).

A study of these Tables shows that there has been a slight reduction in the amount of deposited atmospheric pollution, and having regard to comments made re industrial smoke emission, can only be accounted for by the fact that the rainfall during 1937 was considerably less than in 1936. It is also possible that there has been some decrease in the amount of domestic smoke emitted during the same period, which is reflected in the lower figures given for sulphur pollution. This reduction is also expected as a result of the ever extending use of gas and electricity, if not of solid smokeless fuel. The keeping of records re atmospheric pollution and measurement of daylight not only provide information as to the amount of pollution, but give indications as to its nature and source, and over a period of years are of particular value in that they provide a standard by which we can estimate what improvement, if any, we are making.

Progress is slow and must necessarily remain so until we get a thoroughly smoke conscious public opinion.

-		102			
ARK (t)	laioT sbilo2	$\begin{array}{c} 17.93\\ 15.44\\ 15.48\\ 15.48\\ 15.48\\ 8.28\\ 8.16\\ 9.67\\ 9.67\\ 9.67\\ 12.54\\ 112.54\\ 115.38\\ 15.38\end{array}$	150-05	12.50	
VIEW PARK miles West)	sbilo2 sbilo2	$\begin{array}{c} 111.83\\ 8.12\\ 5.40\\ 5.09\\ 5.09\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.32\\ 5.3$	72.01	00.9	
	sbilo2	$\begin{array}{c} 6.10\\ 6.10\\ 7.72\\ 6.98\\ 5.61\\ 4.71\\ 4.71\\ 4.74\\ 7.16\\ 6.04\\ 6.04\\ 10.06\end{array}$	78.04	6.50	e mile
WEST (11	Rainfall in Inches	$\begin{array}{c} 3.72\\ 5.31\\ 5.31\\ 2.61\\ 2.58\\ 2.40\\ 1.14\\ 1.94\\ 1.94\\ 2.53\\ 2.53\end{array}$	31.62	2.63	square mile. "
2	IstoT sbilo2	$\begin{array}{c} 19.50\\ 13.95\\ 15.72\\ 13.77\\ 14.78\\ 10.69\\ 9.69\\ 11.90\\ 13.81\\ 9.29\\ 13.26\\ 13.26\end{array}$	159-57	13-29	tons per
INFIRMARY (1 mile South)	sbifo2	$\begin{array}{c} 13.73\\ 7.85\\ 6.47\\ 6.47\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52\\ 5.52$	71.74	26.9	
INFIF (1 mile	sbilo2	$\begin{array}{c} 5.77\\ 5.77\\ 6.10\\ 6.52\\ 6.16\\ 6.38\\ 6.38\\ 6.38\\ 7.84\\ 7.84\\ 7.84\end{array}$	87-83	7:32	2.62 2.62 10.49 6.44 6.44
	Rainfall in Inches	$\begin{array}{c} 4.50\\ 5.59\\ 2.230\\ 1.36\\ 1.36\\ 1.98\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28\\ 2.28$	31.30	2.60	
3K	lstoT shilo2	$\begin{array}{c} 17.36\\ 15.78\\ 15.78\\ 12.87\\ 12.85\\ 20.52\\ 26.80\\ 10.92\\ 15.48\\ 13.03\\ 9.12\\ 12.15\\ 12.15\end{array}$	179-93	14-99	::::
KROYD PAR ({ mile North)	əldulo2 sbilo2	$\begin{array}{c} 10.32\\ 7.50\\ 6.05\\ 5.01\\ 7.23\\ 7.23\\ 7.23\\ 7.23\\ 5.12\\ 5.49\\ 5.49\\ 5.49\end{array}$	67.92	5.66	
AKROYD PARK (½ mile North)	sbilo2	$\begin{array}{c} 7.04\\ 8.28\\ 8.28\\ 8.04\\ 8.88\\ 8.88\\ 8.88\\ 8.88\\ 8.28\\ 8.28\\ 8.28\\ 8.28\\ 8.28\\ 10.16\\ 7.91\\ 4.77\\ 6.66\end{array}$	112-01	9-33	
V	Raintall in Inches	$\begin{array}{c} 4.17\\ 5.18\\ 5.18\\ 2.41\\ 1.00\\ 1.67\\ 2.25\\ 2.12\\ 2.25\\ 2.12\\ 2.54\\ 1.67\\ 1.00\\ 1.67\\ 1.00\\ 1.67\\ 1.00\\ 1.67\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\ 1.00\\$	31.76	2-64	::::; v
ARK	lstoT sbilo2	21-23 with. ue. 15-57 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 15-03 17-21	153.83	15.38	in inches Solids Solids Jids
LE VUE P (1/2 mile West)	sbilo2 sbilo2	13.48 no val 5.63 5.13 5.73 5.73 5.73 5.73 5.73 5.73 6.96 6.96 6.96	63-23	6.32	all lble le So
BELLE VUE PARK (3 mile West)	sbilo2	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	09-06	9-06	Rainfall Insolubl Soluble Total S
BE	Rainfall in Inches	4.52 Gau 1 2.58 2.58 2.58 2.58 2.58 2.33 2.58 2.33 2.58 2.58 2.58 2.58 2.58 2.58 2.58 2.58	24.46	2.44	gh :
E	Lotal Solids	$\begin{array}{c} 30.41\\ 26.34\\ 26.02\\ 32.19\\ 25.40\\ 27.69\\ 23.32\\ 28.52\\ 31.23\\ 28.52\\ 31.23\\ 28.52\\ 26.49\\ 26.49\\ \end{array}$	339-44	28-28	Borough :-
STREE tral)	solida Solida	$\begin{array}{c} 13.03\\ 10.55\\ 10.55\\ 7.23\\ 8.37\\ 7.15\\ 5.74\\ 5.75\\ 5.75\\ 8.64\\ 8.13\\ 8.13\\ 7.82\\ 7.82\end{array}$	98-96	8-24	whole
WADE STREET (Central)	sbilo2	$\begin{array}{c} 17.38\\ 15.79\\ 20.43\\ 18.79\\ 23.82\\ 24.02\\ 19.66\\ 21.37\\ 17.57\\ 17.57\\ 222.59\\ 20.39\\ 18.67\\ 18.67\end{array}$	240.48	20.04	ge for
-	Rainfall in redes	$\begin{array}{c} 4.21 \\ 5.85 \\ 5.317 \\ 5.35 \\ 2.217 \\ 2.43 \\ 1.00 \\ 1.59 \\ 1.95 \\ 2.27 \\ 2.69 \\ 2.27 \\ 2.69 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ 1.95 \\ $	32-95	2.74	Avera
	Month	January February March April May June July August September October November	AGGREGATES	MONTHLY AVERAGES	Monthly Average for whole

Total Annual Deposit for whole Borough = 20328 tons per square mile.

TABLE 1.-DEPOSITED ATMOSPHERIC POLLUTION. 1937.





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MEASUREMENT OF DAYLIGHT. 1937.

Potassium Iodide Method.

	105						
Total Daily	Total Daily Average		6.78	6.31			
	Dec.	1.70	2.70	2.20			
	Nov.	3.30	4.00	3.65			
	October	4.60	5.50	5.05			
verage.	Sept.	7.30 .	9.10	8.20			
Milligrams of Iodine liberated—Daily Average.	August	08.8	06.6	9.35			
erated-	July	02.6	10.00	58.6			
dine lib	June	10.40	11.20	10.80			
is of Ic	May	8.40	0.30	8.85			
Milligran	April	6.50	7.40	56.9			
	March	4.90	5 80	5:35			
	January February March	3.10	4.10	3.60			
	January	1.40	2.40	06.1			
Station		WADE STREET (Central)	WEST VIEW PARK (1 ¹ / ₂ miles West)	Total Daily Average			

105
106				
	DAILY AVERAGE			
	$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 \\ 1 & 1 $			
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MEASUREMENT 19. N PARK	MAY			
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WEST	NAU			
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4.	MILLIGRAMS OF 1001HE LIBERATED			





TABLE 5.

SULPHUR POLLUTION-LEAD PEROXIDE METHOD. 1937.

	Total Daily Average	3.85	2.75	3.30
31				
	Dec.	4.94	3.82	4.38
erage.	Nov.	5.38	4.41	4.89
Daily Average.	October	5.22	3.51	4.36
	Sept.	2.36	2.10	2.23
entimetr	August	1.94	1.56	1.75
per 100 square centimetres.	July	1.86	1.09	1.47
per 100	June	2.32	1.32	1.82
	May	3.61	2.10	2.85
Milligrams of SO ₃	April	4.40	3.03	3.71
Mi	March	4.92	3.38	4.15
	January February March	4.52	3.40	3.96
	January	4.72	3.27	66.2
Station		WADE STREET (Central)	WEST VIEW PARK (1 ¹ / ₂ miles West)	Total Daily Average

109

Housing

Housing Statistics.

1. Inspection of Dwellinghouses during the year :	
 (1) (a) Total number of dwellinghouses inspected for housing defects (under Public Health or Hous- 	1
ing Acts)	2838
(b) Number of inspections made for the purpose	3727
 (2) (a) Number of dwellinghouses (included under subhead (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 	1294
(b) Number of inspections made for the purpose	1294
 (3) Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 	1292
 (4) Number of dwellinghouses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 	1210
	1210
2. Remedy of defects during the year without the service of formal notices :	
Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers	1174
 Action under Statutory Powers during the year : (a) Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 : 	
(1) Number of dwellinghouses in respect of which notices were served requiring repairs	1
(2) Number of dwellinghouses which were rendered fit after service of formal notices :	
(a) By owners	3
(b) By Local Authority in default of owners	Nil

(b) Proceedings under Public Health Acts :	
 (1) Number of dwellinghouses in respect of which notices were served requiring defects to be remedied 10 	1
(2) Number of dwellinghouses in which defects were remedied after service of formal notices:	
(a) By owners 10	6
(b) By Local Authority in default of owners Nil	-
(c) Proceedings under Sections 11 and 13 of the Housing Act, 1936 :	
 (1) Number of dwellinghouses in respect of which Demolition Orders were made 14 	
 (2) Number of dwellinghouses demolished in pursuance of Demolition Orders 26 	
(d) Proceedings under Section 12 of the Housing Act, 1936 :—	
 (1) Number of separate tenements or under- ground rooms in respect of which Closing Orders were made Nil 	
 (2) Number of separate tenements or under- ground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit Nil 	*
4. Housing Act, 1936 (Part iv.)-Overcrowding.	
(a) (1) Number of dwellings overcrowded at the end of year 1306	
(2) Number of families dwelling therein 1306	
(3) Number of "persons" dwelling therein $\dots 5140\frac{1}{2}$	
(b) Number of new cases of overcrowding re- ported during the year 2	
(c) (1) Number of cases of overcrowding relieved during the year 98	
(2) Number of "persons" concerned in such cases 419	

(d)	Particulars of any cases in which dwelling- houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	Nil
(e)	Any other particulars with respect to over- crowding conditions upon which the Medical Officer of Health may consider it desirable to report	Nil
Eradicatio	on of Bed-Bugs.	
Partic	ulars of action taken, as follows :	
(1) (a)	(1) No. of Council houses found infested	2
	(2) No. of Council houses disinfested	2

- (b) (1) No. of other houses found infested ... *291
 - (2) No. of other houses disinfested 115

*Of these houses 176 were in clearance areas which on vacation are not disinfested before demolition. Arrangements are made to have all woodwork burned on the site or taken direct to some foundry, etc., for the purpose.

(2) The methods employed for freeing infested houses from bed-bugs are as follows :---

In all cases any wallpaper has to be removed by the occupier or owner. The owner is also required to remove or "ease" all wooden skirtings, picture moulds (if present), architraves, etc., prior to an application by Health Department of approved vermicide. Those at present being used are "Zaldecide," "Lawes," "Lowes Gassing Solution," and "Vermicine." A second application is usually given after an interval of fourteen days.

(3) The household effects of tenants moving from a slum clearance area into a Council house are invariably disinfested. They are collected in a gas-tight trailer van and taken to the Charlestown Disinfesting Station, where soft goods are put through a steam disinfestor whilst the other articles are left in the van and treated with HCN gas. The goods are returned to the new house the same day. As no charge is made for this service we experience no difficulty with tenants.

- (4) All disinfestation work is carried out by the Health Department.
- (5) Measures taken by way of supervision or education of tenants to prevent infestation or re-infestation after cleansing :--

In respect of tenants of privately owned houses no special steps are taken to educate them in the steps necessary to prevent infestation. The District Sanitary Inspectors in the course of their various visits to dwellinghouses call the attention of the tenants to any dirty conditions that may obtain and, if necessary, serve notices (informal) to cleanse. At the same time the tenant is warned as to the possibility, or likelihood, of vermin infestation occurring as a result of such dirty conditions, and advised as to necessary preventive measures. After the disinfestation of any verminous house, the tenant is again advised as to the steps necessary to be taken to prevent any reinfestation.

In the case of tenants of Council houses—if from clearance areas—they have already received their education by reason of the Health Department having disinfested their household effects on removal. In addition to this, a "black list" of tenants is kept, and the District Sanitary Inspector visits the houses of such at intervals as found practicable.

Closing and Demolition Orders : Housing Act, 1936.

Continuing the information given in the Annual Report for 1936 on page 113, the following must be added to show the position on the 31st December, 1937 :---

Ref. No. (1)	Situation. (2)	Date of Report. (3)	Date of Closing Order. (4)	Date of Demolition Order. (5)	Remarks. (6)
60	25, Bradshaw Lane	18/2/37	-	-	Undertaking not to occupy as dwelling house accepted 25/3/37. House vacated 14/4/37.
61	6, 8, 10, 12, 14, Near Royd, Ovenden	22/4/37	-	-	Undertaking to convert these 5 houses into 3 through houses accepted 14/10/37. Works completed 25/4/38
62	17, 19, 21, 23, Slack End	22/4/37	-	8/7/37	Demolished by owners 12/11/37.
63	25, Slack End	22/4/37	-	-	Undertaking not to occu- py as a dwellinghouse accepted 24/6/37. House vacated 7/4/37.
64	2, 4, 6, 8, 10, 12, Pleasant View	13/5/37	-	8/7/37	Demolished by owner 30/11/37.
65	23, 25, 27, 29, Copley Street	22/7/37	-	-	Demolished by owner 24/9/37.
66	1, 2, 3, Upper Fold, Holmfield	14/10/37	-	-	Undertaking to make fft accepted 23/11/37.
67	1, 2, 3, 3a, Windle Royd	14/10/37	-	7/1/38	Houses vacated but not yet demolished.
68	3, 5, 7, Ann Street	18/11/37		26/1/38	Houses vacated but not yet demolished.
69	1, 2, 3, 4, 5, 6, 7, 8, Waterside, Shay Lane	18/11/37	-	7/1/38	All houses but one vac- ated, but not yet demol- ished.
70	1, 2. 3, Lower Brian, Scholes, N'thowram	16/12/37	-	20/1 38	Demolished by owner 29/6/38.

NOTE.—To complete the observations made in the Annual Report for 1936, the following information is given :—

No. 58-Demolition of this house was completed 29/7/37.

Clearance Areas.

Particulars were given on pages 110 and 111 of the Annual Report for 1934, pages 107 and 108 of the Annual Report for 1935, and page 114 of the Annual Report for 1936, of Clearance Areas already dealt with. To these the following must be added to show the position at the end of 1937 :--

Halifax (Dobby Hall) Clearance Area.

The area was represented in June, 1937, and comprises 13,022 square yards or 2.69 acres. It contained 224 dwellinghouses and 6 other buildings plus 1 lock-up shop, making a total of 231 buildings with a total population of 693 persons. The dwellinghouses have a density of 85.9 to the acre.

A Compulsory Purchase Order was made in October, 1937, and a Public Inquiry was held by order of the Minister of Health in March, 1938.

The Order has not yet been confirmed.

Halifax (Ellen Royd) Clearance Area.

This area was represented in June, 1937, and comprises 2,387 square yards or 0.493 acres. It contained 28 dwelling-houses, 1 lock-up shop and 2 lock-up garages, making a total of 31 buildings, with a total population of 92 persons. The dwellinghouses have a density of 63 to the acre.

A Compulsory Purchase Order was made in October, 1937, and a Public Inquiry was held by order of the Minister of Health in March, 1938.

This Order was confirmed with slight modifications in July, 1938.

Halifax (Back Beacon Terrace) Clearance Area.

This area was represented in June, 1937, and comprises 887 square yards or 0.183 acres. It contained 12 dwellinghouses, with a total population of 41 persons. The dwellinghouses have a density of 66 to the acre.

A Clearance Order was made in October, 1937, and a Public Inquiry was held by order of the Minister of Health in March, 1938.

The Order has not yet been confirmed.

Halifax (Grove Street) Clearance Area.

This area was represented in June, 1937, and comprises 15,214 square yards or 3.143 acres. It contained 216 dwellinghouses and 4 other buildings making a total of 220 buildings with a total population of 660 persons. The dwellinghouses have a density of 70 to the acre.

A Compulsory Purchase Order was made in October, 1937, and a Public Inquiry was held by order of the Minister of Health in March, 1938.

The Order has not yet been confirmed.

Halifax (Chapeltown) Clearance Area.

This area was represented in June, 1937, and comprises 10,708 square yards or 2.212 acres. It contained 112 dwellinghouses, 3 lock-up shops and 20 other buildings, making a total of 135 buildngs, wth a total populaton of 380 persons. The dwellinghouses have a density of 61 to the acre.

A Clearance Order was made in December, 1937, and a Public Inquiry was held by order of the Minister of Health in March, 1938.

The Order has not yet been confirmed.

Halifax (Ann Street) Clearance Area.

This area was represented in December, 1937, and comprises 611 square yards or 0.126 acres. It contained 12 dwellinghouses with a total population of 30 persons. The dwellinghouses have a density of 95 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Bailey Hall Bank, No. 1) Clearance Area.

This area was represented in December, 1937, and comprises 8,788 square yards or 1,815 acres. It contained 120 dwellinghouses with a total population of 373 persons. The dwellinghouses have a density of 66 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Bailey Hall Bank, No. 2) Clearance Area.

This area was represented in December, 1937, and comprises 2,495 square yards or 0.515 acres. It contained 29 dwelling-houses with a total population of 77 persons. The dwelling-houses have a density of 56 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Caddyfield) Clearance Area.

This area was represented in December, 1937, and comprises 5,864 square yards or 1.211 acres. It contained 104 dwellinghouses and 2 lock-up shops, making a total of 106 buildings, with a total population of 294 persons. The dwellinghouses have a density of 85 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Crosshills) Clearance Area.

This area was represented in December, 1937, and comprises 5,823 square yards or 1.2 acres. It contained 47 dwellinghouses, 4 lock-up shops, 4 other buildings and 1 basement electricity sub-station, making a total of 56 buildings, with a total population of 143 persons. The dwellinghouses have a density of 38 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Holdsworth Street) Clearance Area.

This area was represented in December, 1937, and comprises 650 square yards or 0.13 acres. It contained 22 dwellinghouses and one disused cafe, with a total population of 69 persons. The dwellinghouses have a density of 169 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Lilly Lane) Clearance Area.

This area was represented in December, 1937, and comprises 1,533 square yards or 0.317 acres. It contained 20 dwellinghouses with a total population of 73 persons. The dwellinghouses have a density of 63 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Malt Shovel Yard) Clearance Area.

This area was represented in December, 1937, and comprises 2,495 square yards or 0.515 acres. It contained 45 dwelling-houses with a total population of 141 persons. The dwelling-houses have a density of 87 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Southowram Bank) Clearance Area.

This area was represented in December, 1937, and comprises 4,935 square yards or 1.08 acres. It contained 84 dwellinghouses with a total population of 277 persons. The dwellinghouses have a density of 78 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Taylor's Buildings) Clearance Area.

This area was represented in December, 1937, and comprises 762 square yards or 0.157 acres. It contained 9 dwellinghouses with a total population of 24 persons. The dwellinghouses have a density of 57 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Wade Place) Clearance Area.

This area was represented in December, 1937, and comprises 1,350 square yards or 0.28 acres. It contained 16 dwellinghouses with a total population of 60 persons. The dwellinghouses have a density of 57 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Wiscombe Bank, No. 1) Clearance Area.

This area was represented in December, 1937, and comprises 1,599 square yards or 0.33 acres. It contained 28 dwellinghouses with a total population of 84 persons. The dwellinghouses have a density of 84 to the acre. A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Halifax (Wiscombe Bank, No. 2) Clearance Area.

This area was represented in December, 1937, and comprises 453 square yards or 0.09 acres. It contained 11 dwellinghouses with a total population of 36 persons. The dwellinghouses have a density of 122 to the acre.

A Clearance Order was made in February, 1938, and a Public Inquiry was held by order of the Minister of Health in May, 1938.

This Order has not yet been confirmed.

Common Lodging Houses.

There are now only four Common Lodging Houses in the Borough.

The Watch Committee has to deal with all matters concerning registration, etc., and the Sanitary Inspectors have made eight inspections during the year. The premises have been well maintained.

Houses-let-in-Lodgings.

There are at present 38 Houses-let-in-Lodgings accommodating 159 families.

There were 71 inspections made during the year and six nuisances abated, whilst in four cases other sanitary improvements were effected.

Theatres, Cinemas, etc.

During the year 111 inspections were made of premises for which stage play licences were required, and improvements were carried out in two cases.

Inspection and Supervision of Food.

Milk Supply.

Milk and Dairies (Consolidation) Act, 1915. Milk and Dairies (Amendment) Act, 1922 Milk and Dairies Order, 1926.

The following information refers solely to those retailers whose premises are under the supervision of the Chief Sanitary Inspector :—

Registered	Retail	Purveyors	with I	Dairy Prem	nises	 48
Registered	Dairy	Premises				 41
Registered	Retail	Purveyors	of Bot	tled Milk	only	 287

In addition there are 96 registered retail purveyors of milk within the Borough, whose dairy premises are situate outside the Borough.

During the year 335 inspections were made of dairies and milkshops within the Borough.

Bacteriological Examination of Milk.

During the year 291 samples of milk were obtained. Of these 267 were of ungraded milk, 22 were of Tuberculin Tested milk, and 2 of Pasteurised milk.

Of the ordinary milk samples 137 were of milk produced within the Borough, the remaining 130 samples being of milk produced outside the Borough.

All the Tuberculin Tested milk samples were of milk produced outside the Borough. Of these 22 samples, 6 were unsatisfactory in that they failed to pass either the Methylene Blue or Coliform Bacillus test, whilst 2 samples failed on the Coliform Bacillus test only.

Both samples of Pasteurised milk were satisfactory.

All ungraded milk samples were submitted to the plate count test, and an analysis of the following Table shows that there has apparently been a considerable fall below the standard obtained in previous years.

This is difficult to understand in view of the increasing amount of work done in this direction.

MII	LK PRODUCED IN BOROL	JGH.			
Not more than 30,000 bacteria per c.c. and no coliform bacilli in 1/10th c.c.	Not more than 200,000 bacteria per c.c. and no coliform bacilli in 1/100th c.c.	More than 200,000 bacteria per c.c. and/or coliform bacilli in 1/100th c.c.			
6 6 = 47· 18%	103 = 75.18%	34 = 24.82%			
MILK 1	PRODUCED OUTSIDE BOI	ROUGH.			
46 = 35.38%	82 = 63.08%	48 == 36'92%			
TOTAL. ALL MILK.					
112 = 41.95%	$185 = 69^{\circ}29\%$	82 = 30.71%			

Biological Examination of Milk.

During the year 100 samples of milk were submitted to this test, of which 51 were of milk produced within the Borough, the remaining 49 samples being of milk produced outside our area.

Six samples were reported as having given a positive result. Four of these were of a locally produced milk and the affected cow was discovered and slaughtered in two of the cases. In one of the two outside the Borough cases the affected cow was discovered and slaughtered.

Food and Drugs (Adulteration) Act, 1928. Sale of Milk Regulations, 1901.

A total of 449 samples of Food and Drugs was taken during the year and submitted to the Public Analyst for chemical analysis.

These included 284 samples of milk and 165 samples of other foods and drugs.

Excluding 17 "appeal to cow" samples, samples of milk not genuine according to the Sale of Milk Regulations, 1901, numbered 15, giving a percentage of 5.62.

Of the 165 samples of other foods and drugs, 8 or 4.85 per cent. were reported as not genuine. Six of these were samples of potted meat which had a moisture content of over 70 per cent.

Including these as adulterated samples the total is 23, giving a percentage of 5.32.

Details of samples taken will be found in the following Tables :--

	T	ABLE	1.			
Nature of Sample	Numb	Number of Samples taken		Number not Genuine		
	Formal	Informal	Total	Formal	Informal	Total
Milk	©268	16	*284	14	1	15
Alcoholic Drinks :	400	10	401	11	1	10
Rear	4	-	4			
Cin	_	5	5	_		
Dum		5	5			
		2	2	_		
Sherry		5	5			
Whisky		8	8			1
Baking Powder		9	9		-	
Butter					1-1-2	-
Cheese		4	4			_
Coffee	-	2	2	-	-	
Cornflour		1	1	-	-	1
Cream		8	8	-	-	-
Cream of Tartar		6	6			
Dried Fruits :					a tabai	
Citron Peel	-	1	1		-	
Currants	-	2	2	-		-
Dried Apricots		2 2	2 2 1			
Lemon Peel		2	2		-	
Orange Peel		1	1			
Sultanas		2	2			
Epsom Salts		6	6		1	1
Jams:						
Diash Current	_	1	1		-	
Damcon		i	1			
Dlum		2	2			
Deephormu		1	1			
		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		_		
Strawberry		2 8	2 8			
Lard						_
Margarine		6	6	_		
Mincemeat		4	4	_		_
Mineral Waters		2	2		_	-
Non-alcoholic Drinks						
Port Flavour Wine		1	1		-	-
Black Currant Wine	- 18	1	1			
Pickled Onions		2	2	-	-	
Potted Meat	. 3	4	7	3	\$3	§6
Rice		8	8		-	
Sardines		2	2	-		
Sausages	1	20	21		†1	†1
Shredded Beef Suet		2	2		-	
Sponge Buns		8	8		-	
· · · · ·	i and a second	2	2			-
T		1	1			
		8	8			
Vinegar		0	0			
Total	276	173	449	17	6	23

122

*Includes seventeen "appeal to cow" samples, six of which were below standard.
\$Re excess moisture. For details see Table 2.
†Re excess preservative. For details see Tables 2 and 4.

TABLE 2.

Administrative Action taken in respect of Samples reported by the Public Analyst to be not genuine, or otherwise irregular.

No. of Sample	Nature of Sample and Result of Analysis, etc.	Administrative Action Taken
34 39	 Milk—8.02% of non- fatty solids. (At least 5% of added water). Milk—8.20% of non- fatty solids. (At least 3% of added water). 	Sample from producer - retailer, a second sample being taken the day following. "Appeal to Cow" sam- ples were taken by the West Riding County Council and reported to be genuine milk containing 8.92% and 9.00% of non-fatty solids. Producer-retailer was prosecuted in the Halifax Borough Police Court, and fined £3 in each case.
35	Milk—2.71% of fatty solids. Deficiency of at least 9%).	Sample from producer - retailer, followed by "Appeal to Cow" sample next day. This was cert- ified to be genuine milk containing 3.90% of fatty solids. Producer-retailer was prosecuted in the Halifax Borough Police Court and fined £3 plus £1/1/- costs.
71	Milk—8.06% of non- fatty solids. (At least 5% of added water).	Sample from retailer who at time sample was taken said it was his own milk. The following day the West Riding County Council took an "Appeal to Cow" sample which was reported as genuine milk con- taining 8.87% of non-fatty solids. Two days later (Saturday) retailer called at office and stated that the milk had been supplied to him by another producer. Three days later samples of milk were obtained in course of delivery from this pro- ducer, which were certified to be genuine milk containing 9.05% and 8.91% of non-fatty solids. Retailer was prosecuted in the Halifax Borough Police Court and fined £5.
72	Milk—2.30% of fatty solids. (Deficiency of at least 23%).	Sample from retailer followed two days later by samples from pro- ducer in course of delivery. These were certified to be genuine milk containing 3.25% and 3.42% of fatty solids. Retailer was prosecuted in the Halifax Borough Police Court and fined £5 plus £1/1/- costs.

TABLE 2-Continued.

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No. of Sample		Administrative Action Taken
83	 Milk—8.09% of non- fatty solids. (At least 5% of added water). Milk—8.28% of non- fatty solids. (At least 2.5% of added water). 	Sample from retailer who stated he was not sure which of three pro- ducers had supplied him. Within the next two days samples of milk in course of delivery from all three producers were obtained. Samples from two of the producers were certified to be genuine milk. Sam- ple obtained from the third pro- ducer was certified to contain 8.28% of non-fatty solids—at least 2.5% of added water. "Appeal to Cow" samples were then obtained and certified to be genuine milk con- taining 8.93% and 8.71% of non- fatty solids. Retailer and producer were prose- cuted in the Halifax Borough Police C ourt. Retailer was fined £2 and producer £5.
154	Epsom Salts—Per- centage of water of crystallisation present less than that of official salt as per British Pharma- copœia.	Retailer's attention called to the matter.
214	Milk2.64% of fatty solids. (Deficiency of at least 12%).	Sample from retailer followed two days later by sample in course of delivery from producer, which was certified as genuine milk containing 3.40% of fatty solids. Retailer was prosecuted in the Halifax Borough Police Court and case dismissed because copy of cert- ificate of " on delivery " sample had not been served on defendant.
217	Milk—2.81% of fatty solids. (Deficiency of at least 6%).	Sample from producer - retailer fol- lowed two days later by "Appeal to Cow" sample, which was certified to be genuine milk containing 3.25% of fatty solids. Reported to Health Committee who instructed Town Clerk to send warn- ing letter.
227 228 229	Potted Meat—72.6% of moisture. Potted Meat—73.2% of moisture. Potted Meat—75.4% of moisture.	These were informal samples re- ported by the Public Analyst as unsatisfactory owing to moisture content exceeding 70%. No further action.

TABLE	2-Conti	inued.
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No. of Sample	Nature of Sample and Result of Analysis, etc.	Administrative Action Taken
253 254 255	Potted Meat—77.9% of moisture. Potted Meat—74.2% of moisture. Potted Meat—74.3% of moisture.	These were three formal samples reported by the Public Analyst as unsatisfactory owing to moisture content exceeding 70%. Reported to Health Committee who instructed Town Clerk to send a warning letter in each case.
248	Milk—2.88% of fatty solids. (Deficiency of at least 4%).	Sample from retailer-producer fol- lowed two days later by "Appeal to Cow" samples taken by West Riding County Council. These were certified to contain 3.20% and 2.97% of fatty solids. Reported to Health Committee who decided to take no action.
283	Milk—2.43% of fatty solids. (Deficiency of at least 19%).	Informal sample from retailer fol- lowed by formal sample next day which was certified genuine milk.
285	Milk—2.71% of fatty solids. (Deficiency of at least 9%).	Sample from retailer followed five days later by sample taken in course of delivery from producer by the Chief Sanitary Inspector of Brig- house. This sample was certified to be genuine milk containing 3.12% of fatty solids. Retailer prosecuted in Halifax Borough Police Court and fined £4 plus £1/1/- costs.
293 297	 Milk—2.61% of fatty solids. (Deficiency of at least 13%). Milk 2.69% of fatty solids. (Deficiency of at least 10%). 	Sample from retailer followed two days later by "on delivery" sample from producer. This sample was certified to contain only 2.69% of fatty solids, a deficiency of at least 10%. Two days later "Appeal to Cow" samples were obtained from the producer who is a cattle dealer. Eight samples were obtained, five of which contained less than 3% of fatty solids. Facts were reported to Health Com- mittee who invited producer to appear before them, when they dis- cussed matter with him and advised him to pay more attention to the milk side of his business.
326	Milk—2.96% of fatty solids. (Deficiency of at least 10%).	Sample from retailer, but as pro- ducer was the one mentioned in previous case, no further action was taken.
448	Sausage—contained an excess of preservative.	Informal sample followed by formal sample which conformed to the Public Health (Preservatives, etc., in Food) Regulations.

TABLE 3.

Monthly Average Composition of Milk Samples.

Month					Analytical Data			
			No. ci Sample		Milk Fat per cent.	Non-fatty Solids per cent.		
January			21		3.67	8'94		
February			25		3.75	9.05		
March			18		3.74	8'94		
April			25		3.80	9.11		
May			37		3.78	9'12		
June			21		3.63	9.11		
July			22		3.82	9.03		
August			21		3.29	9'04		
September			22		3.62	9.07		
October			26		3.89	9.09		
November			14		4.31	9.14		
December			15		3.77	9'18		
Total			267					
Average for	the	year	1937		3.77	9.07		
	,,		1936		3.77	9.09		
,,	,,		1935		3.69	9.02		
,,	,,		1934		3.74	9.09		
,,	,,		1933		3.71	8'99		
"	,,		1932		3.78	9'04		
"			1931		3.69	9'08		
"	,,		1930		3.69	9'03		
22	"		1929		3.63	8'96		
"	,,		1928		3.81	9.03		
Requirements o Regulations, 190		Sale of	Milk 		3.00	8.20		

NOTE.—Seventeen "appeal to cow" samples are excluded from the above Table.

TABLE 4.

Articles of Food examined for Preservative in accordance with the Public Health (Preservatives, etc., in Food) Regulations 1925/6/7.

	No. of	Nature of	Am	ount	
Food	Samples examin'd Preservative		Allowed Found		Remarks
Milk	267	Nil	Nil	Nil	
Alcoholic Drinks Beer	4	Sulphur Dioxide	70 ppm.	Nil	
Sherry	2		450 ppm.	1-70 ppm. 1-110 ppm	} Satisfactory
Butter	9	Nil	Nil	Nil	
Cream	8	Nil	Nil	Nil	
Dried Fruits: Citron Peel	1	Sulphur Dioxide	100 ppm.	Nil	
Currants Dried Apricots	2 2	Dioxide	750 ppm. 2000 ppm.	Nil 1-205 ppm.) California
Lemon Peel	2		100 ppm. 100 ppm.	1-973 ppm. Nil Nil	} Satisfactory
Orange Peel Sultanas	2	.,	750 ppm.	1-166 ppm. 1-538 ppm.	} Satisfactory
Jams : Black Currant	1	.,	40 ppm.	Nil	
Plum Raspberry	1 2 1	·· ··	40 ppm. 40 ppm. 40 ppm.	Nil Nil Nil	
Strawberry	2		40 ppm.	Nil	
Margarine	6	Nil	Nil	Nil	
Mincemeat	4	Sulphur Dioxide	350 ppm.	Nil	
Mineral Waters.	2	Sulphur Dioxide	70 ppm.	Nil	Satisfactory
		Benzoic Acid	120 ppm.	1-20 ppm. 1-80 ppm.	Sausractory
Non-alcoholic Wines	2	∫ Sulphur Dioxide		1-160 ppm. 1-220 ppm.	Satisfactory
		Benzoic Acid	600 ppm.	Nil	J
Pickled Onions	2	Benzoic Acid	250 ppm.	Nil	
Potted Meat	7	Nil	Nil	Nil	

TABLE +Continued.									
Food	No. of Samples examin'd	Nature of Preservative	Am Allowed	ount Found	Remarks				
Sausages	21	Sulphur Dioxide	450 ppm.	5-Nil 1-54 ppm. 1-83 ", 1-88 ", 1-102 ", 1-120 ", 1-145 ", 1-177 ", 1-210 ", 1-219 ", 1-219 ", 1-247 ", 1-279 ", 1-297 ", 1-302 ", 1-346 ", 1-543 ",	Satisfactory Unsatisfactory. This was an informal sample followed by a formal sample taken the following day, which complied with the Regulations, there being 247 parts per million of sulphur dioxide.				
Sponge Buns	8	Nil	Nil	Nil					
Sweets	2	Sulphur Dioxide	70 ppm.	Nil					

TABLE 4-Continued.

Manufacture and/or Sale of Ice Cream.

During the year 277 inspections have been made of 216 registered premises. These were generally found to be kept in good sanitary condition. In five cases it was necessary to require limewashing to be carried out; in one case adequate provision for the sterilisation of utensils had to be provided, and in three other cases minor improvements were necessary.

Fifty-seven samples of ice cream were submitted to bacteriological examination, particulars of which are given in the following Table :—

Produced	IN BOROUGH.					
Not more than 100,000 bacteria per c.c. and no coliform bacillus in 1/100th c.c.	More than 100,000 bacteria per c.c. and/or coliform bacillus in 1/100th c.c.					
16 = 55.17%	13 = 44.83%					
PRODUCED OU	tside Borough.					
16 = 57.14%	12 = 42.86%					
TOTAL.						
32 = 56.14%	25 = 43.86%					

Ice Cream. Bacteriological Condition.

Although the above results show some little improvement upon the previous year, they are far from satisfactory.

Fried Fish Shops.

During the year 233 inspections were made of 166 registered premises.

In seven cases it was necessary to require cleansing of premises, and in six cases other sanitary improvements were effected. It can, however, be definitely stated that on the whole premises are kept in a clean and satisfactory condition.

Fertilisers and Feeding Stuffs Act, 1926.

Eighteen samples were obtained during the year, 17 being informal and one formal.

Four of these samples were of Fertilisers and 14 of Feeding Stuffs.

The following were unsatisfactory :--

Case No. 1. An informal sample of Feeding Meat and Bone Meal obtained from local dealer. Statutory statement did not declare percentage of phosphoric acid present. Chief Sanitary Inspector sent warning letter to dealer who obtained from producer statement required. Case No. 2. An informal sample of Feeding Meat and Bone Meal obtained from local dealer was declared unsatisfactory, in that the percentage of oil present (7.3%) was higher than that declared (6.0%) by more than the amount allowed by the limits of variation under the Act, whilst the albuminoids present (37.4%) were less than 40.0% minimum limit required by the Act. A formal sample was obtained six days later and in this case the percentage of oil present (7.2%) was lower than that declared (12.0%) by more than the amount allowed by the limits of variation, whilst the phosphates present (17.6%) were also greater than the amount declared (15.0%) according to the same standard. In addition the albuminoids present (37.0%) were again below the 40.0%minimum.

The Chief Sanitary Inspector sent warning letter to dealer advising him to take the matter up with his suppliers.

Case No. 3. An informal sample of Feeding Meat and Bone Meal was obtained from a local manufacturer and dealer, and declared unsatisfactory in that the percentage of oil present (7.3%) was higher than that declared (6.0%) by more than the amount allowed by the limits of variation, and the albuminoids present (38.2%) were below the 40.0\% minimum. A formal sample obtained seven days later was certified to be satisfactory.

Case No. 4. An informal sample of Feeding Meat Meal was obtained from a local dealer and declared unsatisfactory in that the oil present (13.7%) was higher than that declared (9.0%) by more than the amount allowed by the limits of variation, whilst the albuminoid content (54.5%) was just under the 55.0\% minimum required by the Act. Two formal samples obtained thirteen days later were also unsatisfactory. In one case the oil present was 13.5% as compared with 9.0% declared; phosphoric acid 8.7% compared with 6.0%declared, and albuminoids 51.6% compared with 60.0%declared. In addition the percentage of albuminoids present was appreciably below the required minimum of 55.0%. In the case of the other sample, oil present was 13.8%, phosphoric acid 8.6%, and albuminoids 54.0%.

The Chief Sanitary Inspector sent warning letter to dealer and also notified authorities at Manchester in whose area the premises of the supplier were situate.

Rag Flock Acts, 1911 and 1928.

There are no manufacturers of rag flock in the Borough and very few dealers in same. Only one sample was taken during the year and this was certified by the Public Analyst to be satisfactory, the chlorine content being 29.6 parts per 100,000.

Pharmacy and Poisons Act, 1933.

At the end of 1937 there were 129 registered sellers of Part 2 poisons, occupying 183 registered premises.

Inspections of these premises as to their compliance with the conditions laid down in the Act and the Poisons Rules, 1935, numbered 213.

One sample of Disinfecting Fluid was analysed in order to ascertain its Phenol content.



SECTION 15

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Analytical Work

Borough Analyst's Commentary

I am indebted to H. T. Lea, Esq., M.Sc., F.I.C., the Borough Analyst, for the particulars given under this heading :

The average quality of milk sold in Halifax continues to be satisfactory, and it is quite evident that the public demand for a clean, wholesome supply is being satisfied. It is greatly to the credit of producers in industrial areas that they are able to compete with their more favourably placed colleagues and supply the public with a milk rich in cream and of the highest bacteriological purity.

The high percentage of samples which fall below the recognised standards is accounted for by the fact that six of the twenty-one samples against which an unsatisfactory report was issued, were "Appeal to Cow" samples collected during a special investigation.

When a sample of milk is found to be deficient either in fat or non-fatty solids, it is customary to make an appeal to the cow by taking samples of the whole herd at the next milking. In connection with the investigation of a fat deficiency in a sample of milk sold in the street, a farm was visited and eight samples were taken from a large herd, five of these were found to contain less fat than the minimum three per cent. fixed by the Regulations. The Committee could not take proceedings against the vendor of the original sample, but interviewed the producer concerned and pointed out to him the necessity of improving the quality of his supply.

During the year the old count method was used for gauging the bacteriological purity of undesignated milks. By comparison of these results with those obtained in previous years, it is apparent that the high standard of purity previously reached has not only been maintained but slightly improved. The Special Designation milks were examined by the official Methylene Blue Test and nearly all samples found to be satisfactory. After a year's work with this test, I am still unable to appreciate its alleged superiority over the plate count test, and believe that the time is not far distant when this official test will be abandoned.

All samples of pasteurised milk have been submitted to the Phosphatase Re-action, a new test which has been devised to gauge the efficiency of pasteurisation. Satisfactory results have been obtained, and I believe that the Phosphatase Test will justify the claims made for it and prove an invaluable aid to the dairy chemist. It is a matter of regret that no standard has been adopted in this Borough for the maximum amount of water in potted meat. A reasonable standard would, I believe, protect the public and also prevent unfair trading. Seven of the eight samples of potted meat contained over seventy per cent. of water, the maximum amount allowed in many areas.

One sample of Epsom Salts examined was found not to have the same chemical composition of the "Magnesii Sulphas" of the British Pharmacopœia. The retailer was communicated with and immediately withdrew the stock, which though not inferior, was dissimilar to the official salt.

No new legislation has been introduced during the period under review. The draft of the Food and Drugs Bill issued on January 1st of this year is, however, so important that mention must be made of it in this commentary. The Bill attempts to consolidate a major part of the present law concerning the composition, preparation and sale of foods of all kinds.

The provisions which replace the main clauses of the Food and Drugs (Adulteration) Act, 1928, have incorporated the recommendations of the Departmental Committee, 1934, on the composition and description of food. The suggestion that the Minister of Health should be empowered to make Regulations as to the composition and labelling of food stuffs is merely an extension of the principle already in existence with reference to dairy products and, in my opinion, is necessary in the framing of any new Act. It is also suggested that misleading advertisements relating to food and drugs be prohibited and that the law, with reference to warranties, be revised.

The existing Acts have undoubtedly led to a decrease in the adulteration of food, and statistics show that detected adulteration has decreased during the last fifty years. Adulteration of this crude kind has, however, given way to the scientific treatment of food, and additions are now often made to alter its appearance, taste or keeping properties. We do not know the accumulative effect of these additions and whether some are not a contributory cause of lower vitality and different health. It is hoped by those interested in this problem that the proposed Bill, which represents the most ambitious attempt yet made to modernise the Law relating to foodstuffs, may deal as effectively with scientific sophistication as past Acts have dealt with crude adulteration.



SECTION 16

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Miscellaneous

Miscellaneous

FOG IN RELATION TO RESPIRATORY DISEASE.

A special investigation was carried out during the last quarter of the year in respect of the relation of fog to respiratory diseases. The results are set out in the following Table :---

Week ended	No. of Deaths from Respiratory Disease (excluding T.B.)	No. of days of fog (if any)
October 2nd	2	0
,, 9th	4	0
,, 16th	0	0
,, 23rd	1	1
,, 30th	5	1
November 6th	0	2
,, 13th	3	1
,, 20th	4	0
,, 27th	2	1
December 4th	4	0
,, 11th	3	1
,, 18th	8	0
,, 25th	4	1
January 1st	4	2

The above investigation failed to show any definite relationship between fogs and respiratory diseases, probably due to the small series of figures. There is, however, little doubt that fog, especially if associated with a fall in temperature, tends to cause an increase in mortality from respiratory diseases.

WATER SUPPLY.

The following routine weekly examinations of the town's water are carried out :---

Thrum Hall Main Supply : 2 Chemical.

3 Bacteriological.

Ogden supply :

1

1 Chemical.

2 Bacteriological.

Samples are collected from the filtered water main as it leaves the filter house and from the consumers' taps.

Water supplied by Halifax to other authorities is examined at least once a fortnight.

Copies of the reports relating to the above examinations are sent to the Medical Officer of Health, and arrangements exist whereby a "bad" report is immediately 'phoned to the Medical Officer of Health. I am indebted to the Waterworks Engineer, Mr. E. P. Brook, for the following report :---

The water supply is obtained from six valleys, viz. :--The Hebble, Luddenden, Widdop, Greave, Walshaw Dean and Gorple.

The source of supply is chiefly moorland and high mountain pasture. The main supply of water is conveyed from the impounding reservoirs by covered conduits and iron pipes to the Albert and Victoria Reservoirs. It is then conveyed to the Filterhouse as required by demand, and thence after filtration direct to the mains. The water does not again come into contact with the atmosphere until drawn at the consumer's tap.

The Ogden supply is somewhat isolated, and serves the districts of Bradshaw, Holmfield, the higher districts of Boothtown, Southowram and Northowram. Here again, the water is not in contact with atmosphere after filtration, until delivery at the point required. The water for the whole of the Borough is now efficiently treated.

The Filtration Plant at Thrum Hall has been in operation since March, 1931, and at Ogden since June, 1934.

The crude water, as collected from the gathering grounds, is an upland surface water with a strong acidic action and often highly coloured with peaty organic matter. During certain seasons of the year it is no uncommon thing to find as many as 1,000 organisms per cc. growing on gelatine, after 48 hours incubation at 20° C. and the Bacillus Coli present in 1 cc.

The water, after the addition of Lime and Alumina, is passed through the high pressure sand filters and then further treated with lime. The resultant filtrate is supplied direct to the consumer and is a water, neutral in reaction, of high organic purity and low hardness and colour, and in every way suitable for all domestic and industrial uses.

A "Multelec" pH Recorder has now been installed at the Thrum Hall Filter Plant, and is giving a continuous record of the lime content of the water.

Total Solids				7.73 Pt	s. pe	r 100,000
Organic Solids				1.58	,,	,,
Chlorine				1.3	,,	,,
Free Ammonia				0.0010	,,	,,
Albuminoid Amm				0.0026	"	"
Nitric Nitrogen				0.028	,,	"
Nitrous Nitrogen				Nil	,,	,,
Oxygen absorbed	in 4	hours at 80°	F.	0.0092		

		Hardness	 	8.0	Degrees
		Hardness	 	3.2	,,
pH	Value		 	7.6	"
Colour	Lovibo	nd Units.			
2ft.	Strata	. Green	 	0.6	Degrees.
		Yellow	 	0.2	,,

Bacteriological Examination.

Total Micro-	organisms	growing	on Gelat	ine	
at 20° C.	2 days				Nil
	3 days				2
Total Micro-		growing	on Agar	at	
37° C. 2					1
3	days				1
B. Coli	Absent in	n			100 cc.

Detailed copies of Bacteriological and Chemical Analyses of waters collected in the Borough, are regularly forwarded to the Medical Officer.

In the Borough, the quantity of water used for domestic purposes is in the region of 21 gallons per head per day. Whilst all encouragement should be given for using water, anything in the nature of waste should be strictly avoided.

The compensation water delivered to the various streams amounts to 5,907,000 gallons per day.

Rivers and Streams.

I am indebted to Mr. D. T. Lloyd Jones, the Borough Engineer, for the following observations :---

Apart from the districts of Northowram where the sewerage falls to Brighouse, part of Warley which drains to Luddenden and certain smaller areas which drain into the sewers of the Sowerby and Southowram authorities, the whole of the sewerage of the Borough gavitates to the Sewage Works at Salterhebble, where the effluent is treated. No known pollution takes place. Surface water in isolated cases is taken direct to water courses.

Storm water overflows to main sewers are regulated to the requirements of the Ministry of Health and periodically inspected and cleansed.

Sewerage

Building development and conversion of closets in various districts will call for extensions of branch sewers and replacements of sewers of obsolete construction, It is anticipated that the Sewage Disposal Works will be adequate to deal with the whole of the effluent of the Borough for some time to come, but in the light of recent research, the most modern methods in the various stages of treatment are being adopted.

The scheme for dealing with surcharge by the laying of relief sewers has been proceeding for two years, and it is hoped that conditions being favourable, the relief sewers to deal with centre of town surcharge will be completed by the end of this year, following which the re-construction of wornout sewers will be undertaken and regularly proceeded with until completion.

Meanwhile the survey is in hand of the sewerage draining to the Ovenden Brook Trunk Sewer, and a scheme will be prepared for dealing with the remainder of the main sewerage in a similar manner.

A contract is proceeding for additional humus tanks at the Copley works and secondary sludge treatment at North Dean.

CLEANSING.

Disposal of Refuse and Street Cleansing.

I am indebted to the Director of Public Cleansing, A. J. Burrell, Esq., for the following notes :---

Public Cleansing is now acknowledged to be one of the principal services of a Local Authority, and this contributes materially to the comfort, convenience, and well-being of all citizens.

The total number of employees in the Cleansing Department is 150, and includes Administrative Staff, Refuse Collection, Refuse Disposal, Street Cleansing, and Gully Cleansing employees. Thirty vehicles and drivers are also engaged.

Refuse Collection.

This is carried out by means of hygienic vehicles of semidustless and dustless types, and the quantity of refuse collected annually from houses, shops, markets, etc., is approximately 25,000 tons. Halifax provides and maintains dustbins free of charge, whereas, in practically every other town in the country, these are provided at the cost of the owner or occupier.

Approximately 1,450 pail closets still remain in districts where conversions have not yet been found practicable; and a specially constructed motor vehicle is fully employed in the collection of these pails, the contents of which are emptied into the sewer at our Refuse Disposal Works. The pails are efficiently washed and disinfected.

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Refuse Disposal.

Approximately two-thirds of the refuse is dealt with at our Refuse Disposal Works, Charlestown Road, and, by a system of mechanical screening and separation, large quantities of materials such as tins, metal, glass, cinders, etc., which would otherwise be destroyed, are recovered and sold, and the burnable refuse provides sufficient steam for the operation of the works.

Waste materials from the Abattoir and Wholesale Fish Market, such as condemned meat, fat, offals, blood, etc., are manufactured into Feeding Meals and Fertiliser by means of plant specially designed for dealing with organic refuse of this character in a hygienic manner.

The following is an analysis of the refuse amounting to 17,695 tons, dealt with at our disposal works for the year ended 31st March, 1938 :---

				Т.	с.	Q.		%
Dust				 6341	12	0		37.30
Cinders				 2838	9	3		16.70
Pots and E	ricks			 223	18	0		1.32
Tins				 469	3	2		2.76
Iron				 105	2	3		0.62
Glass				 54	6	1	····	0.32
Combustible	Debi	ris		 6164	10	2		36.27
Garbage				 618	19	1		3.64
Miscellaneou	IS			 182	0	0		1.07
Total Ho	ouse R	efuse	Plant	 16998	2	0		100.00
Fish				 328	1	1		
Blood				 188	5	3		
Meat, Fat	and O	ffals		 181	9	1		
				17695	18	1		

The refuse which is not taken to the works is disposed of by "Controlled Tipping." The principles involved are that refuse shall be tipped in layers and covered with soil or other suitable material, at the end of each day's operation.

Street cleansing is carried out by machine sweeper, and by hand, and the "beat" and "length" systems, whereby one or two men are responsible for the cleansing of a specified length of road or street, has been found a distinct advantage over the former "gang" system.

Snow Removal and Gritting.

Although the last winter may be regarded as a comparatively mild one, large stocks of salt and ashes were almost exhausted, and every precaution is taken to ensure that, as far as possible, roads are maintained in a safe condition.

Gully Cleansing.

The Department has now three mechanical gully emptiers, by means of which the contents of gullies are drawn into a tank by suction, afterwards being sealed with clean water.

With the exception of a small number of gullies to which these machines are unable to obtain access, the whole of the gullies are now dealt with in the above manner.

During the last year the whole of the cleansing employees have been provided with two pairs of overalls, and these will be renewed annually. Overcoats are provided every two years. As a result the employees generally present a more tidy appearance.

SHOP INSPECTION, Etc.

I am indebted to Mr. Fearnley, the Inspector under the Shops Act 1912 to 1936, the Children's Byelaws, the Fabrics (Misdescription) Act, the Rats and Mice (Destruction) Act 1919, and the Hairdressers and Barbers Shops (Sunday Closing) Act 1930, for the particulars given below :—

Half-holiday Closing Visits				574
Assistants' Half-holiday Visits				
Registration and Administrative V	Visits			519
Young Persons (1934 Act)	,,			556
Special	,,			302
Early Closing	,,			434
Bye-Law (Children)	,,			514
Meat Dealers' Sunday Closing	,,			45
Fabrics (Misdescription) Act V	isits			139
Hairdressers (Sunday Closing)	,,			50
Rats and Mice (Destruction) Act				611
Shops without Assistants' Half-h	noliday Noti	ce (Sec.	1)	37
Do Young Persons	,,	(1934 Ac	ct)	57
Do Mixed Business	(1912) ,,	(Sec. 1	(0)	77
Do Half-holiday Clos	- · · · · · · · · · · · · · · · · · · ·			55
Do Seats for Female	e Assistants	(Sec.	3)	5
Do Seats Notice (K).	(Shops A	ct 1934)		19

Contravention	of Mealtimes (Sec. 1, 3	Sub. 5)	2
Do	Assistants' Half-holiday (Sec. 1, S	Sub. 1)	6
Do	Half-holiday Closing (Sec. 4)	164
Do	Closing Orders (1928 Act)		112
Do	Young Persons' Hours (1934 Act)		13
Do	Children's Bye-Laws		13
Do	Hairdressers' Sunday Closing		
Meat Dealers'	Sunday Closing		_
Warning Notic	es sent		11
Prosecutions		~	

Retail Meat Dealers' Shops (Sunday Closing) Act 1936.

This Act, which became operative as from January 1st, 1937, prohibits the opening of shops for the sale of Beef, Mutton, Veal, Lamb, Pork, etc., on Sundays. Jewish shops are exempted.

Shops Act 1936.

This Act also came into force on January 1st, 1937. It includes and brings under the operation of the Shops Acts 1913 to 1936, the business of lending books or periodicals for gain. (There are certain exemptions).

Rats and Mice (Destruction) Act, 1919.

Number of premises that are or have been rat-infested	
during the year	124
Premises temporarily clear after Rat Week	32
Premises where numbers were reduced	52
Premises at present rat-infested	92
Visits paid for National Rat Week purposes	
Visits paid to rat-infested premises during the year	611
Number of rat tails brought to the Health Dept. during	
the year (excluding Rat Week)	2423
Number of rat tails brought to the Health Dept. during	
Rat Week	
Number of rats killed in addition	462

I would again emphasise the fact that rats increase only to the limit of the food supply. Thus food-containers should be made rat-proof, waste food should not be left about for birds, the rats feed largely on **Waste Food**.

During the year more private houses have been rat-infested, more particularly during the colder winter months. They use the underdrawing spaces under floors for nesting and food storage purposes. The main point of entry was found to be through holes left after repair work had been carried out.

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Number of visits to houses by Dectors of the Health Department at the request of Private Practitioners	Number of Consulta- tions with Private Practitioners exclusive of telephone consultations	Telephone Consultations	Total
15	25	63	103

Co-operation with Medical Practitioners.

(This Table does not include visits and consultations by the Tuberculosis Officer. These appear in the Tuberculosis section of the Report).

Medical Examination of Corporation Employees.

Under Road Traffic Act	Other Examinations	Total	Examined by
25	5	30	Dr. Roe.
2	4	6	Dr. W. Smith.
-	2	2	Dr. D. MacDonald.

LEGISLATION IN FORCE.

An Act for paving lighting cleansing watching and improving the Township of Halifax and for supplying the same with water. 1823. The Halifax Improvement Act 1853. Schemen (clouine 1)-W The Halifax Improvement Act 1862. X The Halifax Extension and Improvement Act 1865. The Halifax Corporation Waterworks and Improvement Act 1868. Sl. house The Halifax Water and Gas Extension Act 1870. The Halifax Water and Gas Extension Act 1876. The Halifax Corporation Act 1882. 1 D (Mulh purveyor) The Halifax Corporation Waterworks Act 1888. The Halifax Corporation Tramways Act 1897. The Halifax Corporation Act 1898. The Halifax Corporation Act 1900. Wilk . heream The Halifax Corporation Act 1902. Slipment folle The Halifax Corporation Act 1905. Coldstores helden flatter flatt The Halifax Corporation Act 1915. The Halifax Corporation Act 1920. 🗙 The Halifax Corporation Act 1922. The Halifax Corporation Act 1924. The Halifax Corporation Act 1926. The Halifax Corporation Act 1929. Busing Trams

CONFIRMATION ACTS.

SHORT TITLE.

The Public Health Supplemental Act 1851 (No. 3).

The Public Health Supplemental Act 1856.

- The Local Government Board's Provisional Orders Confirmation (Halifax etc.) Act 1881.
- The Local Government Board's Provisional Orders Confirmation (No. 4) Act 1886.
- The Local Government Board's Provisional Orders Confirmation (No. 4) Act 1887.

The Local Government Board's Provisional Orders Confirmation (No. 11) Act 1889.

The Local Government Board's Provisional Orders Confirmation (No. 3) Act 1890.

The Local Government Board's Provisional Orders Confirmation (No. 4) Act 1892.

- The Local Government Board's Provisional Orders Confirmation (No. 9) Act 1892.
- The Local Government Board's Provisional Orders Confirmation (No. 10) Act 1892.

The Commons Regulation (Halifax) Provisional Order Confirmation Act 1895.

The Local Government Board's Provisional Orders Confirmation (No. 4) Act 1896.

The Local Government Board's Provisional Orders Confirmation (No. 7) Act 1899.

The Local Government Board's Provisional Orders Confirmation (No. 5) Act 1901.

- The Local Government Board's Provisional Orders Confirmation (No. 7) Act 1912.
- The Local Government Board's Provisional Orders Confirmation (No. 1) Act 1918.
- Ministry of Health Provisional Orders Confirmation (No. 5) Act 1924.
- Ministry of Health Provisional Orders Confirmation (No. 3) Act 1928.
- Ministry of Health (Halifax and West Riding Provisional Orders) Confirmation Act 1928.
- Ministry of Health Provisional Orders Confirmation (No. 11) Act 1929.

ADOPTIVE ACTS.

The undermentioned Acts have been adopted in the Borough :---

The Infectious Disease (Prevention) Act 1890.

The Public Health Acts Amendment Act 1890.

The Public Libraries Acts 1892 to 1919.

BYELAWS, ETC.

Nuisances. Common Lodging Houses. Houses Let in Lodgings. Smoke Abatement. New Streets and Buildings. Offensive Trades.

ORDER THEREBY CONFIRMED.

The Halifax Order 1851. Section 2 relating to Hlfx. The Halifax Order 1881.

The Halifax Order 1886.

The Halifax Order 1887.

The Halifax Order 1889.

The Halifax Order 1890.

The Halifax (No. 2) Order 1892.

The Halifax (No. 3) Order 1892.

The Borough of Halifax Order 1892.

Provisional Order dated 30th April 1895.

The Halifax Order 1896.

The Borough of Halifax Order 1899.

The Halifax and Sowerby Bridge Order 1901.

The Halifax (Extension) Order 1912.

The Halifax Order 1918.

The Halifax Order 1924.

The Halifax Order 1928.

The Halifax (Extension) Order 1928.

The Halifax Order 1929.

General Summary of Meteorological Observations taken at the Public Library, Belle Vue, from January 1st, 1937, to December 31st, 1937.

By E. GREEN, F.L.A., CHIEF LIBRARIAN.

1937.	Pres Atmo M	sure of sphere in onth.		Temp	erabure o	t Air in	Month.		Me Tempe	ean rrafure.	1	apour		* 0	of a Air.	Mean Re Thermo	ading of meter.					w.	od.							Rain.		
	32º F. Lavel.						Mean		(Adop- tel.)			In a c foot o	rubic f Air.	degree -	Weight foot of	1	41	Per l				Relati	ive propi	ortion of				of Cloud.	and a	11	Remarks	
Monib.	Mean at 32 and Sea L	inge.	flighest.	Lowest.	lange.	Of all Blighest.	Of all Lowest.	Daily Earge.	Air.	Dew Points.	Elastic Forc	Mean.	Short of Saturation.	Mean Bahura Sahura Mean Cobie	Mean Mean Mean Mean Mean Mean	Satur Satur Mean cubic	Maximo in Rays of	Minimum on Grass.	Retima	м.	N.E.	E.	8.E.	8.	s.w.	w.	N.W.	Calms.	Menu	No. of Days it full.	Amount	
January February March April May June July August September October November December	29-69 29-548 29-51 29-51 29-98 29-98 29-98 29-98 29-98 29-94 30-03 29-94 30-01 29-77	$\begin{array}{ccccccc} 0 & 1 \cdot 416 \\ 2 & 1 \cdot 100 \\ 9 & 1 \cdot 140 \\ 4 & 0 \cdot 916 \\ 7 & 0 \cdot 600 \\ 3 & 0 \cdot 556 \\ 9 & 0 \cdot 812 \\ 6 & 1 \cdot 024 \\ 3 & 1 \cdot 790 \\ 3 & 1 \cdot 242 \end{array}$	$\begin{array}{c} 52 \cdot 0 \\ 48 \cdot 8 \\ 59 \cdot 2 \\ 74 \cdot 0 \\ 71 \cdot 5 \\ 79 \cdot 2 \\ 78 \cdot 2 \\ 72 \cdot 7 \\ 64 \cdot 0 \\ 55 \cdot 7 \end{array}$	$\begin{array}{r} 28 \cdot 5 \\ 22 \cdot 7 \\ 31 \cdot 5 \\ 38 \cdot 5 \\ 42 \cdot 4 \\ 46 \cdot 7 \\ 43 \cdot 2 \\ 39 \cdot 2 \\ 33 \cdot 6 \\ 26 \cdot 5 \end{array}$	23.5 26.1 27.7 35.5 29.1 32.5 35.0 35.0 35.0 33.5 30.4 29.2	43.4 39.2 51.1 58.6 60.9 64.9 67.1 60.8 53.9 244.8	34·4 30·1 38·9 43·6 47·7 51·4 51·4 51·4 46·3 43·8 35·9	9.0 9.1 12.2 15.0 13.2 13.0 15.7 14.6 10.1 8.9	39.6 36.0 46.8 53.0 53.6 55.9 61.0 55.3 150.3 41.6	35.4 34.6 43.8 49.1 50.4 54.6 53.8 53.2 48.0 38.6	0.285 0.349 0.367 0.427 0.427 0.414 0.405 0.335 0.234	$\begin{array}{c} 2 \cdot 4 \\ 2 \cdot 3 \\ 3 \cdot 3 \\ 4 \cdot 7 \\ 4 \cdot 6 \\ 4 \cdot 5 \\ 3 \cdot 8 \\ 2 \cdot 7 \end{array}$	$\begin{array}{c} 0.3 \\ 0.5 \\ 1.0 \\ 1.3 \\ 1.5 \\ 1.8 \\ 0.7 \\ 0.6 \\ 0.5 \end{array}$	84 91 86 81 76 77 72 87 86 84	537·8 541·0 528·8 521·2 518·1	$\begin{array}{c} 65{\cdot}4\\ 73{\cdot}0\\ 82{\cdot}2\\ 96{\cdot}5\\ 103{\cdot}5\\ 102{\cdot}6\\ 106{\cdot}0\\ 97{\cdot}0\\ 76{\cdot}8\\ 61{\cdot}0 \end{array}$	$\begin{array}{r} 30 \cdot 2 \\ 27 \cdot 9 \\ 36 \cdot 3 \\ 41 \cdot 2 \\ 46 \cdot 2 \\ 49 \cdot 8 \\ 48 \cdot 2 \\ 42 \cdot 1 \\ 39 \cdot 5 \\ 32 \cdot 5 \end{array}$	$\begin{array}{c} 3 \cdot 0 \\ 2 \cdot 0 \\ 2 \cdot 5 \\ 3 \cdot 0 \\ 2 \cdot 0 \end{array}$	$ \begin{array}{c} 0 \\ 2 \\ 1 \\ 0 \\ 1 \\ 1 \\ 0 \\ 4 \\ 5 \\ 3 \\ 4 \\ 8 \\ 8 \end{array} $	$2 \\ 0 \\ 4 \\ 9 \\ 4 \\ 7 \\ 1 \\ 3 \\ 1 \\ 11 \\ 6 \\ 14$	52844001014001400	$ \begin{array}{c} 7 \\ 2 \\ 2 \\ 1 \\ 5 \\ 1 \\ 0 \\ 0 \\ 3 \\ 2 \\ 4 \\ 2 \end{array} $	$ \begin{array}{c} 4 \\ 1 \\ 2 \\ 2 \\ 2 \\ 0 \\ 1 \\ 1 \\ 1 \\ 1 \end{array} $	$12 \\ 18 \\ 4 \\ 8 \\ 12 \\ 10 \\ 11 \\ 3 \\ 11 \\ 4 \\ 3 \\ 5 \\ 5 \\ 12 \\ 12 \\ 12 \\ 10 \\ 11 \\ 3 \\ 5 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 $		$ \begin{array}{c} 2 \\ 10 \\ 12 \\ 9 \\ 6 \\ 15 \\ 12 \\ 9 \\ 5 \\ 3 \\ 4 \\ 4 \end{array} $	5 4 9 10 5 3 11 13 11 19 20 9	7·9 7·4 7·9 7·4 7·9 7·4 7·5 7·3 7·4 6·7 7·9	14 13 11	$\begin{array}{c} & & \\ & 4 \cdot 09 \\ & 5 \cdot 83 \\ & 2 \cdot 61 \\ & 2 \cdot 44 \\ & 2 \cdot 99 \\ & 2 \cdot 14 \\ & 1 \cdot 38 \\ & 1 \cdot 58 \\ & 2 \cdot 46 \\ & 1 \cdot 94 \\ & 2 \cdot 50 \end{array}$	The observations have been reduced to mea- values by Glaisher Barometrical & Diurm Range Tables, and th Hygrometrical result have been deduced fron the seventh edition of Hygrometrical Table after corrections fo Index errors of th Instruments employed	
Annual Mea	ns 29.83	8 1.132	68.9	33-3	30.6	52.	5 41.0	11.6	47.8	44.4	0.303	3.4	0.8	84	527.6	80.4	38.0	2.6	2	5	2	2	2	8	6	8	10	7.5	-	-		

January, 44°February. 42°March, 41°April, 43°May, 47°June, 52°July, 55°August, 56°September, 55°October, 52°November, 48°December, 44°

Highest Readings = 57° on Aug. 11th to 20th.

Rain fell on 207 days, and measured 32.98 inches.

Lowest Readings = 39° on Feb. 20th to March 9th.



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