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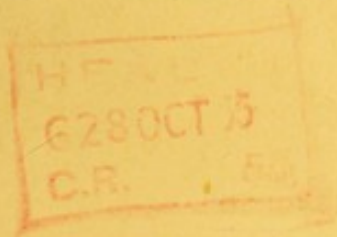
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BOROUGH



OF LEIGH



R E P O R T

of the

Medical Officer of Health

and the

Senior Sanitary Inspector

for the

Year 1954



BOROUGH



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Health Committee :

Chairman :

Alderman T. HOURIGAN, J.P., C.C.

Deputy Chairman :

Councillor F. GIBSON

His Worship The Mayor—Councillor Rev. R. J. KING, J.P.

Alderman T. Battersby, J.P.	Councillor H. Gough
„ W. Collier, J.P.	„ P. Hull
„ H. Gough, J.P.	„ T. Jameson, C.C.
„ W. Hindley, J.P.	„ S. Jones
„ W. Kearney, J.P.	„ J. Murray
Councillor D. M. Allen	„ F. Taylor
„ C. H. Bratt, J.P.	„ W. Woolstencroft, J.P.
„ E. Ditcher	

Staff :

Medical Officer of Health:

T. PATTON SEWELL, M.D., Ch.B., D.P.H. (To 14-6-54)

ELLIS TAYLOR, M.B., Ch.B., D.P.H. (From 15-6-54)

Senior Sanitary Inspector :

HARRY CLUSKY

Inspector of Canal Boats : Rodent Officer : Inspector under Shops Act

District Sanitary Inspectors :

Arthur L. Hope

Kenneth Pollitt

Norman Smith (Resigned 7/2/54)

Michael Richards (Resigned 21/2/54)

William Coupe (Appointed 12/1/54. Resigned 30/11/54)

Laurence H. Kerr (Appointed 1/6/54)

Henry Lear (Appointed 1/6/54)

Clerical Staff :

Senior Clerk : Eric H. Haslam

Clerk/Typist : Miss Mary Neary (Resigned 27/3/54)

„ „ Mrs. Alwyn Markland

„ „ Miss Margaret Flynn (appointed
24/5/54)

Disinfector/Mortuary Attendants :

Ronald Marsh

Samuel Lowe

Rodent Control:

John Statham

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Section A

STATISTICAL AND SOCIAL CONDITIONS OF THE AREA

Public Health Department,
Town Hall,
Leigh.

To the Chairman and Members of the Health Committee.

I have the honour to present for your information and consideration the Annual report on the health of the Borough of Leigh for the year 1954.

Dr. T. Patton Sewell resigned his appointment as Medical Officer of Health in June, when I succeeded him.

The health of the Borough has remained satisfactory through the year in spite of the unusually sunless summer. The population continues its downward trend which has been evident since 1950, the mid-year estimate being 47,990. The birth rate at 14.9 per thousand showed a decrease on the previous year but this was to some extent offset by a reasonably low infantile mortality rate of 27.

The death rate (11.8 per thousand) showed its first upward swing since 1951. Reference to the table of classification of causes of death will demonstrate that the 565 deaths were fairly equally divided between the sexes, but that tuberculosis, carcinoma of the lung, angina and pneumonia claimed many more male victims. An interesting reflection on a subject to which so many adults wish to turn a blind eye, is that cancer of the lung was responsible for as many deaths as tuberculosis.

The difficulty in recruitment of Sanitary Inspectors is causing the Department to suffer from disappointment and frustration in the efficient maintenance of all the health services. Whilst of necessity, much of the time of the staff is taken up on inspection, more should be spent on education and advice to enable wrongs to be righted intelligently. The field of smoke abatement, food handling and planned housing inspection have perforce suffered during the past year.

I welcome this opportunity of expressing my thanks to the Chairman and Members of the Health Committee for their continued interest in the Department and to the members of the staff and my colleagues in the Town Hall for their ever ready help and co-operation.

Yours sincerely,

E. TAYLOR.

VITAL STATISTICS

The following is a summary of the principal statistics for the years 1952, 1953 and 1954.

	1952	1953	1954
Population	48,280	48,070	47,990
Number of Deaths (corrected)	567	491	565
Death Rate (per 1,000 population)	11.7	10.2	11.8
Death of Infants under one year	18	21	19
Infantile Mortality Rate (per 1,000 registered live births)	27	29	27
Number of Live Births registered (corrected)	670	725	714
Birth Rate (per 1,000 population)	13.9	15.1	14.9
Number of Still births (corrected)	15	21	20
Still Birth Rate (per 1,000 total births)	22	28	27
Number of Illegitimate Births	27	34	22
Illegitimate Birth Rate (per 1,000 total births)	39.41	45.5	29.97
Maternal Deaths	Nil	4	2
Maternal Mortality Rate (per 1,000 live births)	Nil	5.52	2.80
Maternal Mortality Rate (per 1,000 Live and Still Births)	Nil	5.36	2.72
Number of Deaths from Pulmonary Tuberculosis	8	7	11
Death Rate per 1,000 population from Pulmonary Tuberculosis	0.17	0.15	0.23
Number of Deaths from all forms of Tuberculosis	10	8	11
Death Rate per 1,000 population from all forms of Tuberculosis	0.20	0.17	0.23

Local Conditions and Statistics.

Leigh is an industrial South East Lancashire town. The highest and lowest ordinance datum being 146 feet and 53 feet respectively.

The principal industries are coal mining, cotton spinning, and weaving, electric cable manufacture, rope making, rayon weaving, sheet metal working, agricultural and general engineering with some farming on mossland on the Southerly boundary of the Borough.

Area in acres	6,359
Population (Census 1951)	48,728
Estimated population (Mid-year estimate 1954)	47,990
Number of inhabited houses end of 1954 according to rate books ...	14,235
Rateable value	£270,634
Sum represented by Penny Rate	£1,075

**Table showing classification of causes
of Deaths for the year 1954**

	Males	Females	Total
Tuberculosis—Respiratory	9	2	11
Other Infective and Parasitic diseases	1	2	3
Malignant Neoplasms—Stomach	8	9	17
do. Lung, Bronchus	10	1	11
do. Breast	—	9	9
do. Uterus	—	8	8
do. Other	17	19	36
Leukaemia, Aleukaemia	3	1	4
Diabetes	1	1	2
Vascular Lesions of the nervous system ...	41	49	90
Coronary Disease, Angina	55	31	86
Hypertension with heart disease	4	2	6
Other heart diseases... ..	26	41	67
Other circulatory diseases	8	11	19
Influenza	4	—	4
Pneumonia	13	7	20
Bronchitis	18	16	34
Other diseases of respiratory system	9	—	9
Ulcer of stomach and duodenum	1	1	2
Gastritis, enteritis and diarrhoea	—	1	1
Nephritis and nephrosis	5	8	13
Pregnancy, childbirth, abortion	—	2	2
Congenital malformations	2	3	5
Other defined and ill-defined diseases ...	40	36	76
Motor vehicle accidents	2	3	5
All other accidents	7	9	16
Suicide	3	5	8
Homicide	1	—	1
TOTAL	288	277	565

Table showing comparable Death Rates from 1926

					Leigh	England and Wales
1926	...	...	...	...	13.3	11.6
1927	...	...	...	...	12.7	12.3
1928	...	...	...	...	12.7	11.7
1929	...	...	...	...	15.5	13.4
1930	...	...	...	...	10.5	11.4
1931	...	...	...	...	11.9	12.3
1932	...	...	...	...	13.0	12.0
1933	...	...	...	...	13.8	12.3
1934	...	...	...	...	13.8	11.8
1935	...	...	...	...	15.3	11.7
1936	...	...	...	...	15.8	12.1
1937	...	...	...	...	14.4	12.4
1938	...	...	...	...	11.9	11.6
1939	...	...	...	...	15.4	12.1
1940	...	...	...	...	16.6	14.3
1941	...	...	...	...	11.7	12.9
1942	...	...	...	...	12.1	11.6
1943	...	...	...	...	12.5	12.1
1944	...	...	...	...	12.7	11.6
1945	...	...	...	...	12.5	11.5
1946	...	...	...	...	11.5	11.4
1947	...	...	...	...	12.7	12.0
1948	...	...	...	...	11.3	10.8
1949	...	...	...	...	12.4	11.7
1950	...	...	...	...	11.8	11.6
1951	...	...	...	...	12.7	12.5
1952	...	...	...	...	11.7	11.3
1953	...	...	...	...	10.2	11.4
1954	...	...	...	...	11.8	11.3

Statistics for 1953, 1954 and the period 1949—1953

BOROUGH OF LEIGH					Per 1000 Estimated Population			Mortality Rate	
					Live Birth Rate	Crude Death Rate	Death Rate from Respiratory Tuberculosis	Maternal	Infants
								Rate per 1000 total births	Rate per 1000 live births
Mean of 5 years (1949 to 1953)	...	...	...	...	15.5	11.7	0.23	1.81	28
Year 1953	...	...	...	...	15.1	10.2	0.15	5.36	29
Year 1954	...	...	...	...	14.9	11.8	0.23	2.72	27
Increase or decrease in 1954 on 5 years average (1949 to 1953)	...	...	...	...	-0.6	+0.1	—	+0.91	— 1
Increase or decrease in 1954 on 1953	...	...	...	...	-0.2	+1.6	+0.08	-2.64	— 2

Birth Rate.

The total number of registered live births assignable to the Borough of Leigh for the year 1954 was 714 as compared with 725 in the previous year. The corresponding Birth Rate for the two years respectively are 14.9 and 15.1 per 1,000 of estimated population.

The following table gives the Birth Rate for Leigh and England and Wales during the last 25 years :—

	Leigh	England and Wales
1930	14.5	16.3
1931	15.7	15.8
1932	14.8	15.3
1933	14.5	14.4
1934	14.0	14.8
1935	13.6	14.7
1936	12.8	14.8
1937	13.5	14.9
1938	15.3	15.1
1939	14.5	15.0
1940	15.5	14.6
1941	18.1	14.2
1942	18.3	15.8
1943	19.8	16.5
1944	19.3	17.6
1945	18.8	16.1
1946	20.4	19.1
1947	22.2	20.5
1948	17.9	17.9
1949	17.4	16.7
1950	16.5	15.8
1951	14.7	15.5
1952	13.9	15.3
1953	15.1	15.5
1954	14.9	15.2

Still Birth Rate.

The total number of registered still births assignable to the Borough during the year was 20 as compared with 21 in the previous year. Giving rates for the two years of 0.41 and 0.43 respectively per 1,000 estimated population. The still birth rate for England and Wales during the period was 0.36.

**Birth-rates and Death rates, Analysis of Mortality
and case-rates for certain Infectious Diseases
for the year 1954**

	Rates per 1,000 Home Population	
	England & Wales	Leigh
Births :—		
Live Births	15.2	14.9
Still Births	{ 0.36 23.4 (a)	{ 0.41 27.2 (a)
Deaths :—		
All causes	11.3	11.8
Tuberculosis (all forms)	0.18	0.23
Respiratory	0.16	0.23
Non-Respiratory	0.02	Nil
Cancer (all forms)	2.04	1.77
Lung & Bronchus	0.37	0.23
Other cancer	1.67	1.54
Maternal Mortality	0.69 (a)	2.72 (a)
Infant Mortality	25.5 (b)	26.6 (b)
Notifications :—		
Typhoid Fever	0.00	Nil
Paratyphoid Fever	0.01	Nil
Meningococcal Infection	0.03	0.02
Scarlet Fever	0.96	0.79
Whooping Cough	2.39	1.66
Diphtheria	0.00	Nil
Erysipelas	0.12	0.06
Smallpox... ..	Nil	Nil
Measles	3.32	6.35
Pneumonia	0.60	0.31
Acute poliomyelitis Paralytic	0.03	Nil
Non-paralytic	0.01	Nil
Acute Encephalitis Infective	0.00	Nil
Post infective	0.00	Nil
Dysentery	0.72	0.23
Food Poisoning	0.20	Nil
Puerperal Pyrexia	0.28	Nil
Tuberculosis Respiratory	0.87	0.37
Meninges & C.N.S.	0.02	Nil
Other	0.11	0.10

(a) Per 1,000 Total Live and Still Births

(b) Per 1,000 Total Live Births.

Incidence and Mortality of Tuberculosis 1954

Age periods	New Cases				Deaths			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M	F	M	F	M	F	M	F
Under 1	—	—	—	—	—	—	—	—
1	—	—	—	1	—	—	—	—
5	—	—	—	—	—	—	—	—
10	—	1	—	—	—	—	—	—
15	—	—	—	—	—	—	—	—
20	2	3	1	1	—	—	—	—
25	—	—	—	—	—	1	—	—
35	—	2	—	1	1	1	—	—
45	10	—	1	—	3	—	—	—
55	—	—	—	—	5	—	—	—
65 and upwards ...	—	—	—	—	—	—	—	—
Totals	12	6	2	3	9	2	—	—
	18		5		11		—	

Incidence and Mortality of Tuberculosis, 1940-1954

	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Notified cases :—															
(a) Respiratory ...	35	29	33	34	31	32	21	24	42	27	27	35	26	28	18
(b) Non-respiratory	16	14	9	13	14	9	9	6	12	6	14	14	4	3	5
Deaths :—															
(a) Respiratory ...	31	20	26	13	14	15	11	18	17	17	14	9	8	7	11
(b) Non-respiratory	4	2	6	5	4	4	5	1	3	1	—	5	2	1	—

Summary of the incidence of the principal notifiable diseases :—

	1948	1949	1950	1951	1952	1953	1954
Scarlet Fever	444	167	105	177	128	32	38
Diphtheria	5	2	—	—	—	—	—
Measles	581	267	584	315	653	71	305
Whooping Cough ...	111	154	215	35	118	62	80
Pneumonia	39	41	33	44	29	31	15
Puerperal Pyrexia ...	7	1	2	2	—	—	—
Meningococcal Infection	—	3	—	—	—	3	1
Dysentery	2	1	2	25	1	3	11
Erysipelas	13	18	13	11	3	3	3
Acute Poliomyelitis ...	1	2	4	4	2	—	—
Food Poisoning	—	4	—	—	—	—	—
Paratyphoid Fever ...	—	—	—	7	—	—	—
	1203	660	958	620	934	205	453

Incidence of Notifiable Diseases (other than Tuberculosis) 1954

Disease	Under 1		1—		2—		3—		4—		5—		10—		15—		20—		35—		45—		65 & over		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Scarlet Fever ...	—	—	—	1	2	—	2	1	5	4	10	7	3	2	—	1	—	—	—	—	—	—	—	—	22	16
Measles ...	3	2	10	21	15	16	19	15	28	31	60	83	2	—	—	—	—	—	—	—	—	—	—	137	168	
Whooping Cough	4	6	2	2	8	4	4	6	13	7	8	16	—	—	—	—	—	—	—	—	—	—	—	39	41	
Pneumonia ...	1	1	—	—	—	—	—	—	1	—	1	—	—	1	—	—	2	1	—	—	4	2	—	1	9	6
Dysentery ...	—	—	1	—	2	—	1	—	—	—	—	2	—	—	1	—	2	2	—	—	—	—	—	6	5	
Erysipelas ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	2	1	
Meningococcal Infection ...	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
Total ...	9	9	13	24	27	20	26	22	47	42	79	108	5	3	—	2	4	3	—	6	3	—	—	1	216	237

Section B

GENERAL PROVISION OF THE HEALTH SERVICES IN THE BOROUGH

GENERAL PROVISION OF THE HEALTH SERVICES IN THE BOROUGH

AMBULANCE SERVICE

Leigh Ambulance Station Tel. Leigh 939.

CARE OF CHILDREN—CHILDREN ACT, 1948

Children's Committee, Lancs. C.C.—Area No. 11

Area Children's Officer :

J. W. COLE, M.A.

89-91 Railway Road,

Leigh.

Tel. Leigh 1658

CLINICS

1. Ante-Natal & Post-Natal

Stonehouse, Leigh.

Every Wednesday & Thursday, 2 to 4 p.m.

2. Relaxation Class

Stonehouse, Leigh.

Friday, 2—4 p.m.

3. Diphtheria Immunisation

(i) At the four County Clinics in the Leigh area by arrangement as required.

(ii) The general practitioner service.

4. Maternity and Child Welfare

(i) Stonehouse Tuesday, 2—4 p.m.

(ii) Chapel Street Clinic Tuesday, 2—4 p.m.

(iii) Westleigh Clinic Wednesday, 2—4 p.m.

(iv) Nangreaves Street Clinic Wednesday, 2—4 p.m.

5. Ophthalmic

Stonehouse, Leigh—by appointment.

6. Orthopaedic

Elliott Street Clinic, Tyldesley.

by appointment

7. Orthoptic

Stonehouse, Leigh—by appointment.

8. School Health and Minor Ailment

(i) Stonehouse, every morning.

(ii) Chapel Street Clinic—Monday, Wednesday and Friday mornings.

(iii) Westleigh Clinic—Monday and Friday mornings.

(iv) Nangreaves Street Clinic — Tuesday and Thursday mornings.

(v) Dental Clinic—Stonehouse daily.

9. Speech Therapy

Stonehouse—by appointment

10. Tuberculosis

Chest Clinic, Leigh Infirmary, Leigh.

11. Venereal Diseases

(i) Civic Centre, Bolton.

Males and Females—Monday, Wednesday and Friday.

9-30 a.m. to 12-30 p.m.

2 p.m. to 7-30 p.m.

(ii) Royal Albert Edward Infirmary, Wigan.

Males ... Wednesday, 2 p.m. to 7 p.m.

Females ... Wednesday, 2 p.m. to 4 p.m.

4-30 p.m. to 7 p.m.

CONVALESCENCE

Arrangements made by the Lancashire County Council through the Divisional Medical Officer.

CONVALESCENT TREATMENT

Arrangements made by the Regional Hospital Board.

HEALTH VISITING SERVICE

Full-time Health Visitor School Nurses are employed in the area by the Lancashire County Council.

HOME HELP SERVICE

Provided by the Lancashire County Council through the Divisional Medical Officer.

HOME NURSING SERVICE

District Nurses employed full-time are provided in the area by the Lancashire County Council.

HOSPITALS

1. **General**—Leigh Infirmary.
Atherleigh Hospital.
2. **Infectious Diseases**—Astley Hospital, Astley.
Hulton Lane, Bolton.
3. **Maternity**—Bolton District General Hospital, Farnworth.

LABORATORY FACILITIES

Laboratories at Leigh, Wigan and Bolton Infirmaries and the Regional Laboratory at Monsall Hospital of the Public Health Laboratory Service.

MATERNITY HOMES

Firs Maternity Home, Leigh.
Haslam, Havercroft and Heaton Grange Maternity Homes, Bolton.

MIDWIFERY SERVICE

Domiciliary midwives employed whole-time in the area by the Lancashire County Council.

MORAL WELFARE WORK

Local Worker :—

Miss A. Rigby
186 Chapel Street

Leigh

Tel. : Leigh 1061

(Council for Moral Welfare)

NURSING HOMES

None in the district.

UNMARRIED MOTHERS AND ILLEGITIMATE CHILDREN

Provision for their care is made by the Lancashire County Council in conjunction with voluntary organisations.

WELFARE SERVICES

Arrangements made by the Lancashire County Council.

Residential accommodation at Atherleigh Grange and Hourigan House, Leigh.

X-RAY FACILITIES

At Leigh, Bolton and Wigan Infirmaries. Facilities for special chest cases at the Chest Clinic, Leigh Infirmary.

Section C

PREVENTION OF AND CONTROL OVER INFECTIOUS AND OTHER DISEASES

PREVENTION OF AND CONTROL OVER INFECTIOUS AND OTHER DISEASES

CHICKENPOX (Varicella)

This disease is not notifiable in the district.

DIPHTHERIA

Two suspected cases were notified but the disease was not confirmed. The need to continue the immunisation campaign against the disease remains, the most necessary pre-requisite for continued freedom.

DYSENTERY

Eleven notifications were received during the year.

ENCEPHALITIS

Again no cases were notified.

ERYSIPELAS

Three cases have been reported.

FOOD POISONING

No case was reported during the year under the provisions of section 17 of the Food and Drugs Act.

MALARIA

No cases reported.

MEASLES

The periodicity of this infection was experienced, with 305 cases. All proved to be fairly mild and complications were minimal.

MENINGOCOCCAL INFECTION

Although two cases were notified, only one was confirmed as a meningitis.

MUMPS (Infective Parotitis)

This disease is not notifiable but it is known that a number of cases occurred.

PARATYPHOID FEVER

No cases reported.

PNEUMONIA

Fifteen cases occurred this year.

POLIOMYELITIS (Infantile Paralysis)

No confirmed case occurred.

PUERPERAL PYREXIA

No case was notified.

SCARLET FEVER

The incidence remained comparable with last year, there being 38 cases notified.

SMALLPOX (Variola)

No case occurred but if this satisfactory state of affairs is to be maintained it is imperative that the public continue to seek protection through vaccination and that a higher acceptance rate is achieved.

TUBERCULOSIS

During the year there were eighteen new cases of respiratory and five of non-respiratory infection, as compared with twenty eight and three respectively the previous year.

TYPHOID FEVER

No case occurred.

VENEREAL DISEASE

None of the venereal diseases are notifiable.

WHOOPING COUGH

There were eighty notifications during the year.

Section D

**SANITARY CIRCUMSTANCES
OF THE
AREA**

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GENERAL SANITARY ADMINISTRATION.

This year has been marked by the frequency of staff changes and a constant deficiency which has materially affected the volume of work accomplished by the department. Priority has been given to slaughter-house duties, one inspector being engaged full time and one spending almost threequarters of his time on this work.

The number of complaints made by the public has again increased over previous years and at times visits in response thereto have not been so prompt as when the department had a full staff establishment. Less attention has been given to some sections of the department's activities than should be the case, too few food premises are being regularly visited and too little smoke abatement work are instances of the neglect of essential duties.

During the year the Sanitary Inspectors paid a total of 7,489 visits to all classes of premises as against 9,292 in 1953.

Complaints Received and Investigated.

The number of complaints received and investigated in the year by the staff was 846.

These complaints are classified in the following table :—

Nature of Complaint	Number received
Defective drains	84
„ Closets	107
„ Doors	1
„ Windows	14
„ Yard surfaces	4
„ Eavesgutters	25
„ House roofs	34
„ Floors	12
„ Sinks	6
„ Wall and ceiling plaster	27
„ Dustbins	27
„ Washing boilers	3
„ Fireplaces	14
„ Chimneys	9
„ Baths	1
Dampness due to various causes	34
Insufficient and inadequate water supply	15
Water lodged	24
Overcrowding	37
Verminous houses	42
Dirty houses	10
Rain penetration	35
Rats and Mice	160
Smoke emission	12
Rubbish	18
Insufficient Sanitary Accommodation	6
Miscellaneous	85
TOTAL	846

Summary of Visits by the Sanitary Inspectors.

	Inspections	Re-inspections	Total	Defaults found	Defaults remedied
Dwellinghouses—					
Public Health Act, 1936 ...	891	2489	3380	1378	987
Housing Act, 1936 ...	169	52	221	17	2
Overcrowding ...	29	6	35	11	2
Houses let-in-lodgings ...	1	—	1	2	—
do. Verminous ...	35	52	87	28	10
do. Non-Verminous	32	63	95	30	13
General Sanitation—					
Tents, Vans, Sheds ...	2	3	5	2	2
Canal Boats ...	4	—	4	—	—
Places of Public Entertainment... ..	4	13	17	1	—
Streets, Passages, footpaths ...	27	16	43	16	7
Infectious Diseases ...	78	65	143	—	—
Schools ...	8	11	19	4	—
Stables ...	1	5	6	1	—
Piggeries ...	25	79	104	16	2
Keeping of fowls ...	2	2	4	1	1
Rats and Mice ...	193	160	353	60	44
Public Conveniences ...	7	—	7	1	—
Farms ...	22	4	26	1	—
Drain Testing ...	69	47	116	18	16
Water courses... ..	7	3	10	3	—
Smoke Observations ...	36	—	36	—	—
Pet Animals Act ...	4	—	4	—	—
Rag Flock Act ...	1	—	1	—	—
Miscellaneous ...	736	140	876	24	22
Shops Act ...	80	67	147	34	18
Factories Act—					
Premises with Mechanical Power ...	66	90	156	27	28
do. without do. do. ...	21	16	37	6	3
Other premises classified as Workplaces ...	2	2	4	3	—
Premises visited with respect to Sec. 34 for Means of Escape in Case of Fire	7	7	14	4	1
Food Premises—					
Markets ...	14	7	21	3	3
Bakehouses ...	46	64	110	57	24
Canteens (Factories) ...	4	2	6	—	—
Cafes and Restaurants ...	27	19	46	9	2
Dairies and Milkshops ...	25	11	36	1	—
Grocers Shops... ..	60	68	128	25	24
Greengrocers ...	6	8	14	3	2
Fish Friers ...	15	23	38	5	3
Wet Fish Shops ...	9	12	21	11	2
Sweet Shops ...	13	12	25	6	3
Food Warehouses ...	17	10	27	1	—
Hotels and Public Houses	7	3	10	1	3
Butchers Shops ...	33	69	102	26	9
Slaughterhouses ...	527	301	828	1	—
Butchers Vehicles ...	3	—	3	—	—
Ice Cream Manufacturers	5	—	5	—	—
„ „ Shops ...	29	45	74	1	—
„ „ Vehicles ...	5	21	26	3	—
Offensive Trades ...	1	5	6	—	1
Miscellaneous ...	5	7	12	2	1
TOTAL ...	3410	4079	7489	1843	1235

Infectious Diseases—Investigation and Disinfection.

78 visits of investigation and 65 re-visits were paid to premises where infectious diseases had occurred. In addition 39 visits were made by the Disinfecting Staff for the purpose of carrying out disinfection on account of the occurrence of notifiable diseases. 29 library books and twenty-two beds were disinfected.

Disinfestation.

87 visits were made by the Sanitary Inspectors in the course of investigation of verminous premises.

A total of 60 premises were treated by the disinfestation staff as follows :—

20 (59 rooms) Corporation houses ; 26 (88 rooms) private houses ; 14 (40 rooms) miscellaneous premises.

D.D.T. or Gammexane according to circumstances, has been used as a spray in solution of white spirit or as an emulsion in water.

Rechargeable disinfestation work was carried out for which £52 10s. 1d. was recovered.

Sales of Disinfectant by the Department realised £172 5s. 3d.

Testing of Drainage Systems.

116 visits were paid for the purpose of testing and inspecting Drainage Systems.

Testing of new drainage is carried out by the Borough Surveyor's Department.

Closet Accommodation.

Number of fresh water closets	...	16,727
Number of waste water closets	...	260 (approx.)
Number of trough closets		17 (schools)
Number of pail closets		23
Privy middens		18

During the year 9 waste water closets were converted into pedestal water closets. A sum of £8 or one half the cost of conversion whichever is the less, is paid to the owner on completion of the work.

The pail closets and privy middens are situated in the semi-rural area of the Borough where it is impracticable to provide water closets.

Sewerage Disposal.

The disposal is effected at the works of the Leigh and Atherton Joint Sewerage Board, Mather Lane, Leigh. The method of disposal is by percolating filters and humus tanks, with additional chemical treatment by chlorine gas.

Houses Let in Lodgings.

Of the three houses on the register it can be said that a satisfactory standard has been maintained.

Canal Boats.

There were no new registrations of Canal Boats during the year.

4 inspections were made, the object being to ensure compliance with the requirements of the Public Health Act, 1936. No infringements were found.

There were no cases of infectious disease reported on any Canal Boat and it was not necessary to detain any boat for cleansing or disinfection.

Piggeries.

The number of piggeries in the Borough is 107. Generally speaking they give rise to little in the way of nuisance, particularly those of more recent date and erected in accordance with the Building Bye-laws. The insistence on the submission of plans before permitting the erection of piggeries has without doubt done much to help in the reduction of complaints from this class of premises.

104 visits were made during the year.

Offensive Trades.

There are two tripe dressers and one fat melter within the Borough. These premises are visited by the Sanitary Inspectors to ensure that they comply with the Bye-Laws and the Food and Drugs Act, 1938. A good standard has been maintained by the owners of the businesses.

Common-Lodging Houses.

There are no Common Lodging Houses within the Borough.

Rag Flock and Other Filling Materials Act, 1951.

No new applications were received for registration of premises during the year. One factory is on the register of such premises and was inspected during the year and found to be satisfactory.

Three samples of filling materials were submitted to an approved analyst and found to conform to the Regulations and the B.S.I. 1425 standard.

Marine Store Dealers.

There are six premises registered as Old Metal and Marine Store Dealers in the Borough.

Public Baths.

The Public Baths consists of 2 plunges, 12 slipper baths and 1 foam bath. Facilities are available for Turkish baths.

Sixty-eight samples of swimming bath water were submitted to the Public Health Laboratory for examination.

Mortuary.

The Public Mortuary is supervised by the Department, the two disinfectors acting as attendants.

During the year 70 bodies were received for the following causes.

Accidents	8
Suicide	6
Natural Causes	51
Other Causes	5

Refuse Collection.

This service is under the control of the Director of Cleansing who has supplied the following information :—

Number of moveable ashbins	17,900
Number of ashbins emptied	716,000
Refuse dealt with at Destructor	580 tons
Refuse delivered to Tip	20,116 tons

Places of Public Entertainment.

There are seven cinemas of which one is used for live shows occasionally.

Seventeen visits were paid in the year to this class of premises for the purpose of inspection of sanitary accommodation, ventilation and cleanliness.

Shops Act, 1950.

Due to the frequent changes in inspectorate it has proved impossible to give this year an accurate number and classification of shops in the Borough, but it is over 900.

A total of 147 visits for all purposes were made during the year.

Thirty-four informal notices were served under Section 38 of the Act requiring the provision of suitable and sufficient washing facilities.

WATER SUPPLY

The supply is taken in bulk from the Rivington reservoirs of the Liverpool Corporation, being sand filtered and chlorinated before distribution in the Borough.

Arrangements are also made with Manchester Corporation for a supply to be made available from the Thirlmere aqueduct.

Weekly sampling of the Town's Mains Water is undertaken for bacteriological examination. In all a total of 86 samples were submitted. 35 by this department and 51 by the Supplying Authority.

Five samples were taken for chemical analysis. The table on page 35 shows the results.

Number of houses with direct supply	
from main	14,288
Number of houses supplied by standpipe	1
Number of houses with private supply	7

Results of Chemical Examination of Town's Water Samples (Parts per 1,000,000)

Date	Sample	Colour	Oxygen absorbed from Permanganate in 15 mins	Oxygen absorbed from Permanganate in 3 hrs.	Ammonia	Albuminoid Ammonia	Nitrogen as Nitrates	Nitrogen as Nitrites	Combined Chlorine	Lead grains per gall.	ph value	Total solids in solution	Free Chlorine	Copper
9- 2-54	1	Normal	0.42	0.74	0.05	0.05	0.65	Trace	14	Nil	7.2	108	Nil	Nil
5- 5-54	2	Normal	0.22	0.40	0.025	0.04	0.50	Nil	14	Nil	6.5	80	0.05	Nil
3- 8-54	3	Normal	0.10	0.25	0.05	0.05	0.40	Nil	13	0.9	6.6	100	Trace	Nil
26- 8-54	4	Normal	(Submitted for examination)	for examination	nation for Lead only)		—	—	—	Nil	7.2	—	—	—
1-11-54	5	Normal	0.21	0.40	0.06	0.04	0.45	Trace	13	Nil	6.7	96	Trace	Nil

FACTORIES ACT, 1937.

Number of factories on the register at end of year 189.

Classification

Cotton and Rayon Textile Manufacturers	28
Reed Makers	1
Tailors and Overall Makers	12
Brick Makers	4
Builders Merchants and Stonemasons	9
Joiners and Cabinet Makers	14
Earthenware Manufacturers	1
Bakehouses	27
Maltsters and Bottlers	3
Margarine Manufacturers	1
Mineral Water Manufacturers	1
Slaughterhouses	2
Toffee Works	1
Agricultural Implement Makers	1
Coach Builders	2
Engineers and Iron Founders	6
Motor Vehicle Repairers	14
Scrap Metal Dealers	3
Sheet Metal Workers and Welders	8
Boot and Shoe Repairers	13
Brush, Skip and Hamper Makers	3
Cable Makers	1
Electricity Stations	3
Funeral Directors and Coffin Makers	2
Launderers and Dry Cleaners	5
Paint Manufacturers	1
Printers	8
Rope Works	1
Radio and T.V. Repairers	2
Others	12
TOTAL	189

The following table gives particulars of the inspections during the year under Part One of the Factories Act, 1937, and an analysis of the defects which were found, with particulars of the action taken.

Factories, Cases in which defects were found

Particulars (1)	No of defects				Number of offences in respect of which Prosecutions were instituted (6)
	Found (2)	Remedied (3)	Referred to H.M. Inspector (4)	Referred by H.M. Inspector (5)	
Nuisances under the Public Health Acts :—					
Want of cleanliness	3	1	—	12	—
Overcrowding	—	—	—	—	—
Unreasonable temperature ...	2	1	—	—	—
Inadequate ventilation	2	1	—	1	—
Ineffective drainage of floors ...	—	—	—	—	—
Sanitary Conveniences :—					
(a) Insufficient	12	9	—	1	—
(b) Unsuitable or defective ...	22	23	—	5	—
(c) Not separate for sexes ...	—	—	—	—	—
Other offences against the Act (not including offences relating to Outwork)	—	—	—	—	—
TOTAL	41	35	—	19	—

Factories, Inspections for Purposes of Provisions as to Health

Premises (1)	(2)	No. on Register (3)	No. of Inspections (4)	No. of Written Notices (5)	No. of Occupiers prosecuted (6)
Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authority	1	10	37	5	—
Factories not included in (1) in which Section 7 is enforced by Local Authority	2	175	148	6	—
Other Premises in which Section 7 is enforced by Local Authority (excluding out-workers premises)	3	4	4	—	—
TOTAL		189	189	11	—

FACTORIES ACT, 1937 SECTION 34.

Means of escape in case of fire.

Reports and recommendations with respect to work under this Section of the Act are made to the Watch, Parks and Cemeteries Committee of the Council.

During the year fourteen visits were paid to four premises which were not provided with suitable means of escape in case of fire. Of these premises the work in respect of one was completed during the year and a certificate of suitability issued. Of the other three premises work was still proceeding in two instances at the end of the year whilst in the other case the owners are to submit plans of their proposals.

The main work accomplished has been one new external steel staircase with landings serving three floors, modifications to doors and door fastenings together with the marking of exits in accordance with the Regulations.

SMOKE ABATEMENT AND ATMOSPHERIC POLLUTION

The number of factory and works chimneys situated within the Borough is 74.

The local Bye-law relating to emission of black smoke permits a maximum of two minutes in one half hour.

The following table gives details of the work done in this connection during the year :—

Number of chimneys observed (half hour observations	...	36
Number of observations showing emission of black smoke		
in excess of Bye-laws limits		14
Number of intimation notices served		3
Number of abatement notices served		—

An average emission of 4.72 minutes of black smoke per half hour was recorded.

This authority is a member of both the North Western Division of the National Smoke Abatement Society and the Manchester and District Regional Smoke Abatement Committee.

During the year, as is apparent from the number of smoke observations, very little work has been done on Smoke Abatement which in view of the evidence which was accumulating of improving conditions is a sad commentary to offer, and unless this work is more actively pursued much of the past achievement is likely to be lost.

The long awaited Report of the Committee on Air Pollution was published towards the end of the year and was well received. Although the document is a lengthy one there are several points to which attention might be directed. The Report says "we wish to state our emphatic belief that air pollution on the scale with which we are familiar in this country today is a social and economic evil which should no longer be tolerated and that it needs to be combated with the same conviction and energy as were applied one hundred years ago in securing pure water. We are convinced that given the will it can be prevented. To do this, will require a national effort and will entail costs and sacrifices ; the recommendations made in this Report will involve expenditure by the Government, local authorities,

and householders alike. But we are confident that our proposals, if carried out, will secure happier and more healthy living conditions for millions of people, and that on all counts the cost of the cure will be far less than the national loss in allowing the evil to continue" and in drawing attention to the effect of air pollution on health "Action to reduce pollution by smoke, grit and dust and sulphur oxides need not and must not be held up while further medical research is done. There can be no doubt that the effect of air pollution on health is wholly bad, whether measured positively in relation to growth, well-being and joy of living or more negatively in terms of death, disease and the economic loss which goes with incapacity to work."

Atmospheric Pollution.

The recording of the extent of atmospheric pollution commenced in November, 1949 has continued during the year.

The apparatus in use consists of three standard deposit gauges for the measurement of soot, dust and grit, etc., whilst three lead peroxide instruments measure the amounts of active sulphur dioxide present in the atmosphere these results are transmitted to the Department of Scientific and Industrial Research.

Tables showing the results of the investigations during the last five years are given on pages 41 and 42.

SOLID MATTER DEPOSITED

Month	Tons of solid matter per square mile														
	Leigh Boys' Grammar School					Town Hall					Firs Maternity Home				
	1950	1951	1952	1953	1954	1950	1951	1952	1953	1954	1950	1951	1952	1953	1954
January	12.93	20.91	21.25	14.92	18.41	33.00	31.66	37.55	29.37	—	19.43	54.07	—	15.54	14.16
February	12.69	17.90	11.63	16.74	37.84	31.17	33.36	19.67	26.03	—	23.41	23.04	13.79	20.09	33.93
March	9.38	25.39	16.33	22.07	14.40	21.49	43.59	36.28	40.32	36.85	15.41	24.14	18.82	19.26	—
April	19.04	21.35	17.08	17.79	9.03	35.69	33.71	27.47	35.41	18.34	32.90	21.97	15.85	18.54	19.53
May	15.43	16.53	16.67	10.34	20.32	—	29.17	35.65	21.51	29.61	25.82	18.71	18.98	17.33	16.69
June	25.47	16.94	12.14	8.35	13.76	22.54	—	30.05	26.80	18.64	52.80	13.61	16.79	10.21	13.41
July	11.47	17.04	9.95	19.23	14.55	19.32	—	20.95	30.28	20.48	15.95	26.90	17.05	22.36	12.52
August	12.26	8.82	5.64	7.73	19.72	21.05	36.33	18.62	25.78	25.15	17.88	—	16.86	22.51	18.34
September	23.03	11.74	38.61	15.98	18.56	32.80	24.49	38.17	30.92	28.80	27.37	15.20	23.33	16.27	17.34
October	13.10	11.67	17.65	9.96	13.75	32.95	30.07	35.42	22.49	20.24	18.47	17.20	23.52	15.95	13.62
November	23.57	—	20.05	13.84	24.02	32.56	41.27	—	28.51	32.57	44.53	25.15	17.26	15.89	22.34
December	13.62	28.47	57.08	11.94	22.27	20.46	34.60	—	25.81	27.52	—	26.54	—	14.96	23.66
TOTAL	191.99	196.76	244.08	168.89	226.63	303.03	338.25	299.83	343.23	258.20	293.97	266.53	182.25	208.91	205.54
Average per month	15.99	17.88	20.34	14.07	18.88	27.54	33.82	29.98	28.60	25.82	26.72	24.23	18.22	17.41	18.68

Sulphur determined by the Lead Peroxide Method

Month	Milligrammes per 100 square centimetres per day														
	Leigh Boys' Grammar School					Town Hall					Firs Maternity Home				
	1950	1951	1952	1953	1954	1950	1951	1952	1953	1954	1950	1951	1952	1953	1954
January	3.10	2.35	2.67	2.92	3.74	4.46	3.47	—	3.51	4.47	3.71	2.69	2.36	2.55	4.28
February	2.91	2.32	2.66	1.86	3.31	3.83	2.95	3.14	2.39	4.40	2.45	2.41	1.92	1.90	3.67
March	2.54	2.75	1.94	2.72	2.73	3.18	3.46	2.59	3.19	3.72	2.55	2.73	2.14	2.47	3.37
April	2.17	1.81	1.63	2.02	2.18	2.30	2.13	2.10	2.24	3.08	1.67	1.52	1.67	2.12	2.39
May	2.34	2.15	1.36	1.41	1.73	2.39	2.05	1.75	1.68	1.95	2.16	1.59	1.34	1.31	1.42
June	1.38	1.18	1.14	1.48	1.30	1.53	1.42	1.19	1.52	1.70	1.17	1.10	0.93	1.15	1.88
July	1.19	0.96	1.03	1.23	1.48	1.17	1.13	1.17	1.20	1.57	1.01	0.75	0.83	0.90	0.86
August	0.99	0.94	1.00	1.18	1.45	1.37	1.36	1.29	1.42	1.71	1.06	1.00	1.06	0.86	1.12
September	1.48	1.14	1.56	1.49	1.31	1.82	1.66	1.41	1.72	1.86	1.20	1.18	1.14	1.36	1.15
October	1.83	2.18	2.03	2.10	1.99	2.87	3.25	2.44	2.92	2.66	2.25	2.65	1.99	2.58	1.64
November	2.74	2.27	2.99	2.88	2.44	3.66	2.97	3.26	2.03	3.87	2.41	2.44	2.64	2.22	2.65
December	2.41	2.04	2.81	3.56	2.58	3.48	3.02	3.39	3.41	3.21	2.98	2.12	2.63	2.77	2.33
TOTAL	25.18	22.09	22.82	24.85	26.24	32.06	28.87	23.73	27.23	34.20	24.62	22.18	20.65	22.19	26.76
Average per month	2.09	1.84	1.90	2.07	2.18	2.67	2.40	2.15	2.27	2.85	2.05	1.84	1.72	1.84	2.23

HOUSING.

General Remarks.

Housing activities during the year have been as follows :—

- (a) Representation in respect of five houses comprising two areas. Seven individual houses were dealt with under Section II of the Housing Act, 1946.
- (b) Building of 156 houses and 8 flats by the Corporation and 17 houses by other bodies or persons.
- (c) The commencement of a survey of the district with a view to ascertaining the number of houses which appear to be unfit for human habitation in accordance with Section I of the Housing Repairs and Rents Act, 1954.

Representation was made to the Council with respect to five houses comprising two areas.

Clearance Orders were made by the Council and have been confirmed by the Ministry of Housing and Local Government no objections were made by the owners.

The properties dealt with are as follows :—

Area	Houses comprising the Area	No. of Houses	No. of Persons Displaced
Brunswick Street No. 6	13 Brunswick Street	2	4
	13 Back Brunswick Street ...		
Speakman Street	21, 23 and 25 Speakman Street	3	8
	TOTAL	5	12

As Individual Houses :

Address	No. of houses	No. of Persons to be Displaced
304 Westleigh Lane	1	12
Bedford Lodge Cottage	1	6
28 Kirkhall Lane	1	2
35 Lord Street	1	1
4 Ackers Court	1	4
5 Speakman Street	1	3
Crompton House, Farm House ...	1	4
*117 Green Lane	1	5
TOTAL	8	37

*Voluntary undertaking not to re-let given by owners.

SUMMARY

	Number of houses dealt with	Number of Persons affected
Areas	5	12
Individual Houses	8	37
	13	49

HOUSING REPAIRS AND RENTS ACT, 1954.

Number of Applications received	41
Number of Certificates of Disrepair granted	41
Number of Applications for Revocation	Nil

HOUSING

Number of new houses erected during the year :—

(a) Total (including numbers separately under (b))	...	...	...	...	...	181
(i) By Local Authority	...	...	...	...	...	Houses 156 Flats 8
(ii) By other Local Authorities	...	...	...	...	...	Nil
(iii) By other bodies or persons	...	...	...	...	...	17
(b) With State assistance under the Housing Acts :—						
(i) By Local Authority	...	...	...	...	...	Houses 156 Flats 8
(ii) By other bodies or persons	...	...	...	...	...	Nil

I. Inspection of Dwelling-houses during the Year.

(1)	(a)	Total number of Dwelling-houses inspected for housing defects (under Public Health or Housing Acts)...	...	...	...	1060
	(b)	Number of inspections made for the purpose	...	...	...	3601
(2)	(a)	Number of Dwelling-houses (including under Sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	...	184
	(b)	Number of inspections made for the purpose	...	...	...	193
(3)		Number of Dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...			18
(4)		Number of Dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not be in all respects reasonably fit for human habitation	...	...	...	166

2. Remedy of Defects without Service of Formal Notices.

Number of Defective Dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	350
---	-----

3. Action under Statutory Powers.

A. Proceedings under Section 9, 10 and 16 of the Housing Act, 1936 ...

(1) Number of Dwelling-houses in respect of which notices were served requiring repairs

(2) Number of Dwelling-houses which were rendered fit after service of formal notices—	
(a) By Owners	—
(b) By Local Authority in default of Owners	—
B. Proceedings under Public Health Acts—	
(1) Number of Dwelling-houses in respect of which notices were served requiring defects to be remedied	268
(2) Number of Dwelling-houses in which defects were remedied after service of formal notice :—	
(a) By Owners	115
(b) By Local Authority in default of Owners	78
C. Proceedings under Section 11 and 13 of the Housing Acts, 1936.	
(1) Number of Dwelling-houses in respect of which Demolition Orders were made	6
(2) Number of Dwelling-houses demolished in pursuance of Demolition Orders	2
D. Proceedings under Section 12 of the Housing Act, 1936.	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	Nil
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	Nil

4. Housing Act, 1936—Overcrowding.

Number of Cases of overcrowding investigated during the year ...	29
Number of Cases of overcrowding confirmed during the year ...	24
Number of families involved	41
Number of persons dwelling therein	162
Number of families re-housed	15
Number of persons involved	68

The Housing Committee allocate Corporation houses on a points scheme.

Sufficiency of Supply of Houses.

At the end of the year there were 1,404 applicants on the Corporation housing list of which 1,059 were living in lodgings.

The tenants of eight houses for which the Health Committee had previously accepted undertakings from the owners not to re-let, were re-housed.

The following table shows the number and types of defects found and remedied in dwellinghouses during the current year.

Nature		Found	Remedied
Drains		159	160
Roofs		134	104
Eavesguttering		128	90
Rainwater Pipes		38	28
Walls External	Defective Brickwork	36	31
" "	Dampness Penetrating	31	18
Walls Internal	Damp Wallplaster	47	35
" "	Defective Wallplaster	88	58
" "	Defective Ceiling Plaster	58	34
Sinks and Slopstones		15	8
Sink Waste Pipes... ..		26	21
Floors		41	28
Window Frames	Defective Woodwork	54	29
" "	Sashes and inadequate ventilation	41	35
" "	Glazing	4	4
Doors		14	5
Fire-ranges	Defective	33	18
" "	Smoke emission	21	10
Insufficient Water Supply		76	12
Closets—Fresh Water		193	177
" Waste Water		3	3
Yards and Passages		34	19
Other Defects		104	59
TOTAL		1378	986

At the request of the Housing Director 351 Inspections were made with respect to the letting of Corporation Houses. 68 vacant houses and 6 vacant flats were inspected for cleanliness. 32 Certificates of Permitted Number were issued respecting 126 houses and 8 flats.

Repairs were carried out in default of owners, following service of Statutory Notices under the Public Health Act, 1936, at a total cost of £486 4s. 5d.

Public Health Act, 1936—Statutory Notices Served

Section of Act	Reason	No. of Notices
24	Defective Sewer	1
39	Defective sink	6
39	Drainage (Sub-soil drains)	34
39	Gutters downspouts	91
45	Defective water closets	123
83	Dirty House	1
93	Other conditions prejudicial to health	193
138	Water Supply	13
TOTAL		462

FOOD HYGIENE

Classification of Premises Visited.

	No. of visits
Markets	21
Bakehouses	110
Canteens (Factories)	6
Cafes and Restaurants	46
Dairies and Milkshops	36
Grocers Shops	128
Greengrocers	14
Fish Friers	38
Wet Fish Shops	21
Sweet Shops	25
Food Warehouses... ..	27
Hotels and Public Houses	10
Meat Regulations :—	
Shops	102
Slaughterhouses	828
Others	3
Ice Cream Premises :—	
Manufacturers	5
Shops	74
Vehicles	26
Offensive trades	6
Miscellaneous... ..	12
TOTAL	1538

Bakehouses.

Number of Bakehouses on register	42
Number of inspections in year	110
Number of defects found	57
Number of defects remedied	24

Slaughterhouses.

Number of licensed slaughterhouses in the Borough 2

During this year the Ministry of Food ceased to Control meat supplies, the premises at Buck Street and the Bengal Street bacon factory reverting to private use, the former being taken over by the Fat Stock Marketing Corporation. Arrangements were made whereby butchers might have their own animals slaughtered on payment of a fee and casualty animals dealt with, the slaughtermen being on rota for the purpose. The arrangements have worked very satisfactorily, no complaints have been received of inadequacy of slaughter facilities.

On thirty-five Sundays an inspector was on duty whilst slaughtering was in progress at one of the slaughterhouses.

The following tables give details regarding all animals which were slaughtered and inspected during 1954 :—

**TABLE OF CLASSIFICATION FOR CAUSE OF
CONDEMNATION OF CARCASSES**

	Cattle	Cows	Sheep	Pigs	Calves	Total
Generalised Tuberculosis	5	37	—	26	—	68
Oedema, Generalised	—	—	—	2	—	2
Septicaemia	—	—	—	3	—	3
Metastatic abscesses	—	—	—	1	—	1
Emaciation, pathological	—	1	13	2	—	16
Moribund	—	—	2	2	—	4
Umbilical Pyaemia including Joint ill	—	—	—	—	4	4
Fevered	—	—	—	1	—	1
Bruising extensive and severe ...	—	—	—	1	1	2
Swine Erysipelas	—	—	—	2	—	2
Immaturity	—	—	—	—	2	2
Johnes Disease	—	1	—	—	—	1
Tumours... ..	—	—	—	1	—	1
Suffocation	—	—	—	1	—	1
TOTAL	5	39	15	42	7	108

Percentage Condemnations for Tuberculosis and other conditions.

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed	2,670	2,319	612	20,364	20,121
Number inspected	2,670	2,319	612	20,364	20,121
All diseases except Tuberculosis Whole carcasses condemned	—	2	7	15	15
Carcasses of which some part or organ was condemned	1,091	1,289	—	1,790	456
Percentage of the number inspected affected with disease or parasitic conditions other than Tuberculosis	40.86	55.67	1.14	8.86	2.34
Tuberculosis Whole carcasses condemned	5	37	—	—	27
Carcasses of which some part or organ was condemned	269	640	—	—	373
Percentage of the number inspected affected with Tuberculosis	10.26	29.19	—	—	1.98

Tuberculosis Order, 1938.

No cows were sent for slaughter by Veterinary Inspectors.

Cysticercus Bovis.

All bovines are subjected to examination for *Cysticercus Bovis* and during the year two cases were discovered. In each case particulars of the animal affected were forwarded to the Divisional Veterinary Inspector of the Ministry of Agriculture and Fisheries.

Slaughter of Animals Act, 1933.

There are 31 slaughtermen holding licences granted by this Authority.

Inspection of Other Foods.

The following table gives a list of Foods examined by the Sanitary Inspectors and rejected as unfit for human consumption. All were voluntarily surrendered.

	Containers	Tons	cwts.	qrs.	lbs.	ozs.
Meat	1,195	1	10	1	14	14
Vegetables	236	—	2	—	2	10
Fish	201	—	1	—	26	8
Fruit	1,168	—	10	1	7	11
Milk	471	—	3	1	7	6
Sundries	773	—	3	—	2	1
Miscellaneous (Unpacked Food)	—	1	17	—	1	—
TOTAL	4,044	4	7	1	6	2

Food and Drugs Act, 1938.

The Public Analyst for the Borough is Dr. G. H. Walker, Ph.D., F.R.I.C., County Offices, Preston.

180 samples of milk and other foods were submitted to the Public Analyst for examination. The following classified table shows the results of the analysis of the samples.

ANALYSIS OF FOOD SAMPLES, 1954

Article	Number examined			Number adulterated or otherwise giving rise to irregularity		
	Formal	Inf.	Total	Formal	Inf.	Total
Brandy	-	1	1	-	-	-
Bread	-	1	1	-	-	-
Brewers Yeast Tablets	-	1	1	-	-	-
Butter	-	5	5	-	-	-
Cheese	-	5	5	-	-	-
Cocktail Cherries Bottled	-	1	1	-	-	-
Coffee	-	1	1	-	-	-
Confectionery (Shortbread)	-	1	1	-	-	-
Cooking Fat	-	2	2	-	-	-
Cream, Fresh	-	3	3	-	-	-
Fish Paste	-	1	1	-	-	-
Flour, Self Raising	-	3	3	-	-	-
Fruit, Dried	-	4	4	-	-	-
„ Fresh Apples & Oranges	-	4	4	-	1	1
Grapefruit Preserve	-	1	1	-	-	-
Honey	-	1	1	-	-	-
Ice Cream... ..	-	9	9	-	1	1
„ Lollies	-	5	5	-	-	-
Lard	-	1	1	-	-	-
Lemon Curd	-	1	1	-	-	-
Macaroni	-	1	1	-	-	-
Margarine... ..	-	6	6	-	1	1
Marmalade	-	2	2	-	-	-
Meat Canned	-	1	1	-	-	-
Milk	2	69	71	-	1	1
„ Malted	-	1	1	-	-	-
Pepper White	-	1	1	-	-	-
Pickles	-	1	1	-	-	-
Rum	-	3	3	-	-	-
Rum Butter	-	1	1	-	-	-
Sausages, Beef	-	5	5	-	-	-
„ Pork	-	5	5	-	1	1
Sausage Meat, Beef	-	1	1	-	-	-
„ „ Pork	-	1	1	-	1	1
Soft Drinks, Concentrated	-	4	4	-	1	1
„ „ Orange Drink	-	2	2	-	-	-
„ „ Glucose Drink	-	1	1	-	-	-
Sweets	-	7	7	-	1	1
„ including chocolates	-	7	7	-	-	-
Tea	-	1	1	-	-	-
Throat Pastilles	-	1	1	-	-	-
Tomato Paste	-	1	1	-	-	-
Tomato Soup, Canned	-	1	1	-	1	1
Vegetables, Canned	-	3	3	-	-	-
Wine, British Sherry	-	1	1	-	-	-
TOTAL	2	178	180	—	9	9

ADULTERATED FOOD SAMPLES, 1954

No. of Samples	Description	Nature of adulteration or irregularity	Observations
479	Italian Apples ... (Informal)	1. 4 Apples. Lead 5.5 parts per million. Arsenic 2.1 parts per million. 2. 4 Apples Lead 8.2 parts per million Arsenic 2.0 parts per million. Recommended maximum limits Lead 2 parts per million. Arsenic 1 part per million.	Importers communicated with.
484	Milk (Informal) ...	Deficient 10 per cent fat.	Vendor notified. Other sample taken at same time genuine.
535	Sweets, Butter Squares (Informal)	Butterfat contents only 2.8 per cent.	Importers communicated with.
546	Soft Drink Concentrated Orange Squash (Informal) ...	Contained only 15.0 per cent. orange juice.	Manufacturers communicated with. Further sample advised.
566	Pork Sausage Meat ... (Informal)	Meat content only 52.0 per cent.	Vendor interviewed See No. 572.
572	Pork Sausages ... (Informal)	Meat content 64.0 per cent.	No action advised.
574	Ice Cream (Informal)	Deficient of 3.3 per cent. Sugar.	Vendor cautioned. Further sample advised.
607	Margarine (Informal)	Contained only 420 international units of vitamin A per ounce. Should contain 760-940 international units per ounce.	Old Stock. Stock withdrawn from sale.
625	Tomato Soup, Concentrated, canned. (Informal)	Two cans submitted. Cans contained respectively 630 and 880 parts per million of tin.	Stock surrendered and destroyed.

Average Composition of Milk Samples 1940—1954

Year	No. of samples	Fat	Solids-not-fat	Total solids	Percentage Adulteration
1940	90	3.77	8.80	12.57	3.3
1941	88	3.70	8.68	12.38	1.1
1942	78	3.60	8.67	12.27	5.1
1943	61	3.79	8.60	12.39	3.3
1944	50	3.70	8.53	12.23	4.0
1945	38	3.61	8.55	12.16	7.9
1946	34	3.57	8.55	12.12	5.9
1947	60	3.81	8.52	12.23	16.6
1948	83	3.70	8.60	12.30	9.6
1949	80	3.67	8.56	12.23	8.7
1950	87	3.69	8.62	12.31	6.9
1951	70	3.65	8.66	12.31	4.2
1952	62	3.86	8.65	12.51	3.2
1953	65	3.79	8.55	12.34	12.3
1954	71	3.84	8.63	12.47	1.4
Average of 15 years		3.72	8.61	12.32	6.3

Milk Supply.

All milk sold by retail in the Borough on and after October 1st, 1954, was "specially designated" as a consequence of an Order made by the Ministry of Food under the Food and Drugs (Milk and Dairies and Artificial Cream) Act, 1950. From this date only tuberculin tested milk and pasteurised and sterilised milk were permitted to be sold.

Inspections of Dairies and Milk Shops were carried out at regular intervals throughout the year and found to be generally satisfactory.

Number of Registered Milk Distributors in the Borough ... 169

Number of Registered Dairies in the Borough ... 3

Bacteriological and Biological Examination of Milk Samples

Designation	No. taken	NATURE OF TEST							
		Methylene Blue		Turbidity Test		Phosphatase Test		Tubercle Bacilli	
		Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory	Positive	Negative
Raw	26	23	—	—	—	—	—	3	22
Accredited	3	3	—	—	—	—	—	—	3
Tuberculin Tested	5	5	—	—	—	—	—	—	5
Pasteurised... ..	22	22	—	—	—	22	—	—	1
Sterilised	10	—	—	10	—	—	—	—	—
T.T. Pasteurised	19	18	—	—	—	19	—	—	—
TOTAL	85	71	—	10	—	41	—	3	31

The Presence of Tubercle Bacilli in Milk.

33 samples of raw milk were submitted to the biological test for the presence of tubercle bacilli. Tubercle bacilli proved to be present in three or 9.09% of the samples. In each case where the presence of Tuberculosis was confirmed the Divisional Veterinary Inspector of the Ministry of Agriculture and Fisheries was notified.

With regard to the three positive samples mentioned in the previous paragraph, certificates were issued in each case for compulsory pasteurisation during the period of the veterinary investigation, in accordance with Article 20 of the Milk and Dairies Regulations, 1949.

One sample of heat-treated milk submitted to the biological test for the presence of Tuberculosis was reported negative.

Biological examinations for Tubercle Bacilli 1940—1954.

Year	No. of Samples raw milk and accredited milk	Biological Test		% of Samples found to contain Tubercle Bacilli
		T.B. +	T.B. —	
1940	106	12	94	11.32
1941	223	12	211	5.38
1942	255	21	234	8.23
1943	210	11	199	5.24
1944	203	6	197	2.95
1945	95	10	85	10.53
1946	107	5	102	4.67
1947	47	2	45	4.26
1948	116	9	107	7.76
1949	111	7	104	6.30
1950	97	7	90	7.21
1951	108	3	105	2.77
1952	111	3	108	2.70
1953	86	3	83	3.48
1954	33	3	30	9.09
Average for the period				6.12

Ice Cream.

In accordance with Section 14 (1) (a) Food and Drugs Act, 1938, 13 premises were registered for the sale of Ice Cream during the year. At the end of the year 153 premises had been registered for the sale or manufacture of ice cream.

There are five manufacturers of ice cream licensed in the Borough.

All ice cream sold within the Borough is subject to frequent bacteriological examination. Samples are submitted to the Regional Public Health Laboratory, Monsall Hospital, Manchester.

The following table shows the grades achieved of 58 samples of ice cream submitted for examination :—

Identification	No. of Samples	Grade I	Grade II	Grade III	Grade IV
Leigh Manufacturers					
No. 1	7	5	2	—	—
No. 2	3	2	—	—	1
No. 3	1	1	—	—	—
Manufacturers premises outside the Borough					
No. 1	12	7	1	3	1
No. 2	8	3	3	2	—
No. 3	8	3	2	1	2
No. 4	6	4	1	1	—
No. 5	5	4	1	—	—
No. 6	3	—	2	1	—
No. 7	3	2	1	—	—
No. 8	1	1	—	—	—
No. 9	1	1	—	—	—
TOTAL	58	33	13	8	4

Where samples on examination are found to be below Grade II special visits are made to those premises situated within the Borough. In the case of samples from a source outside the Borough the appropriate local authority is informed and follow-up samples taken.

The following table gives the results of the examination of Ice Cream samples submitted under the Food and Drugs Act.

Year	Fat%	Total Solids%
1949	8.0	31.9
1950	8.9	32.7
1951	9.8	35.5
1952	9.8	32.7
1953	9.4	34.1
1954	8.5	33.7
Average	9.1	33.4

Lancashire County Council (General Powers) Act, 1951.

Hawkers.

Any person, who shall by himself, or any person employed by him, sell or offer or expose for sale, any meat or meat food product, or fish, fruit or vegetables from any cart, barrow or other vehicle or from any basket, pail, tray or other receptacle, must be registered.

The number of persons on the register at the end of the year was 69.

Premises.

All Premises used or proposed to be used for storage of meat, meat food products, or fish, fruit or vegetables must be registered.

The number of premises registered at the end of the year was 52.

FOOD AND DRUGS ACT, 1938 (Section 14).

Ice Cream.

Under the above Act no premises, unless registered for that purpose, by the Council, shall be used for the sale or the manufacture for purposes of sale of any commodity consisting of ice cream, or any substance similar thereto, or the storage of any such commodity intended for sale.

At the end of the year 156 premises had been registered for the sale or manufacture of ice cream.

Preserved Foods, etc.

Under the above Act all premises used for the preparation or manufacture of sausages or potted, pressed, pickled or preserved meat, fish, or other food intended for sale must be registered.

The number of premises registered at the end of the year was 101.

RODENT CONTROL

During the year as a result of complaints and continuous survey 1,518 premises were inspected. As a result 203 infestations were found and in course of treatment 2,151 visits were made by the Rodent Operator.

A free service for the destruction of Rats and Mice is given to occupiers of dwelling houses conditional on there being no contributory negligence. In all other cases the full cost of the work and materials is borne by the occupiers of the premises and in this connection the sum of £73 19s. 9d. was recovered during the year.

Summary of visits made for purpose of survey

Location	No. of visits
Houses	1047
Factories	27
Food Premises	46
Shops (Not Food)	52
Farms	10
Brooks	22
Allotments	27
Reservoirs	1
Schools	10
Piggeries... ..	4
Hen Runs	23
Public Houses	8
Garages	14
Stables	5
Offices	10
Clubs	3
Gardens	1
Local Authority Premises	5
TOTAL	1315

Summary of Visits for purposes of treatment

Premises	No. of Visits		Non-Poisonous Baits		Poison Baits				Estimated Total Kill Rats Only
			Rats Only		Rats		Mice		
	Rats	Mice	Laid	Taken	Laid	Taken	Laid	Taken	
Houses	1434	292	855	210	1261	388	1219	471	391
Food Premises	56	43	65	6	254	71	316	91	34
Factories	141	37	403	80	2003	529	495	139	243
Schools	16	36	10	3	67	23	425	141	12
Brooks	29	—	117	12	112	47	—	—	41
Farms	23	—	124	24	124	42	—	—	58
Hen Runs... ..	10	—	—	—	51	17	—	—	13
Shops (Not food)	10	—	23	3	19	7	—	—	8
Piggeries	—	1	—	—	—	—	—	—	—
Public Houses ...	—	6	—	—	—	—	78	28	—
Local Authority premises ...	15	2	158	53	21	21	—	—	34
TOTAL	1734	417	1755	391	3912	1145	2533	870	834

Sewer Infestation.

The Ministry of Agriculture and Fisheries procedure as to the methods of pre-baiting and poisoning is adhered to throughout this work. The disinfection of sewers comprises what is known as an initial treatment followed by maintenance of a similar kind at six-monthly intervals.

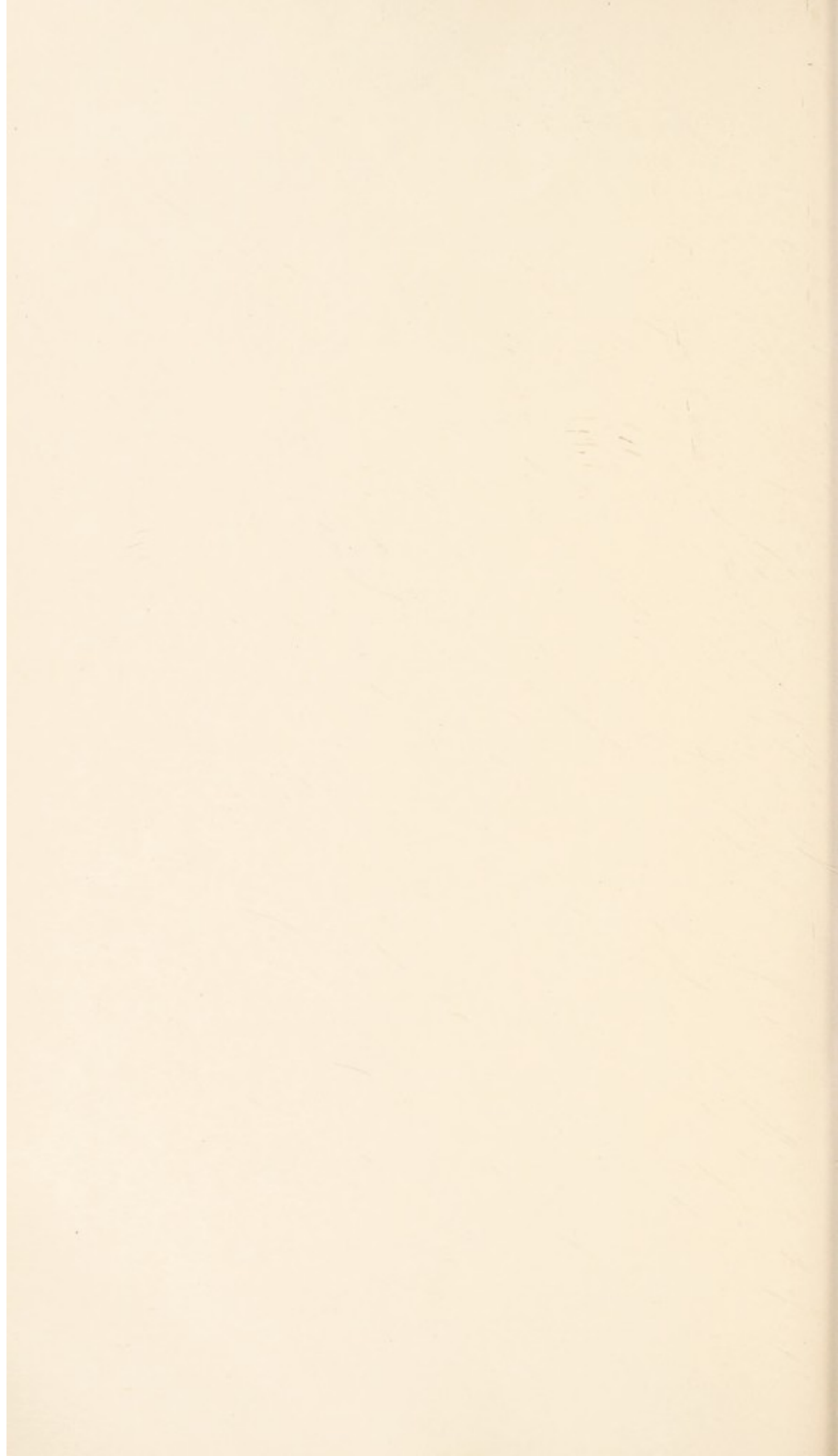
Two further maintenance treatments of sewers were undertaken and a comparative table of all treatments undertaken since the inception of this scheme in 1945 to date is given below.

Sewer Treatment — Rats

Year	Treatment No.	No. of Man-holes treated	Pre-Baiting (2 days)		Poison Baiting			Estimated Kill
			Taken	Not taken	Taken		Not Taken	
1945	1	834	107	727	68	38	728	1160
	2	834	31	803	10	22	802	280
1946	3	224	137	311	36	37	151	660
	4	224	135	313	27	35	162	593
1947	5	87	119	55	42	20	25	693
1948	6	93	99	87	24	27	48	500
	7	102	75	129	24	16	62	427
1949	8	106	14	91	30	22	54	520
	9	117	25	82	35	16	66	510
1950	10	94	48	46	14	34	46	930
	11	104	63	41	3	56	45	620
1951	12	64	49	15	4	38	22	420
	13	108	46	62	4	42	62	460
1952	14	106	64	42	1	64	41	222
	15	121	65	56	2	60	59	215
1953	16	109	53	56	—	50	59	208
	17	108	56	52	1	56	51	280
1954	18	100	70	31	—	68	32	109
	19	106	65	27	1	57	48	387

The following table shows the results of the experiments conducted on the 10th of May 1881. The experiments were conducted on the 10th of May 1881. The results of the experiments are as follows:

Table showing the results of the experiments conducted on the 10th of May 1881.									
No.	Time	Temp.	Pressure	Height	Direction	Force	Velocity	Acceleration	Deceleration
1	10.00	60.0	30.0	10.0	N	1.0	1.0	1.0	1.0
2	10.10	60.5	30.5	10.5	N	1.1	1.1	1.1	1.1
3	10.20	61.0	31.0	11.0	N	1.2	1.2	1.2	1.2
4	10.30	61.5	31.5	11.5	N	1.3	1.3	1.3	1.3
5	10.40	62.0	32.0	12.0	N	1.4	1.4	1.4	1.4
6	10.50	62.5	32.5	12.5	N	1.5	1.5	1.5	1.5
7	11.00	63.0	33.0	13.0	N	1.6	1.6	1.6	1.6
8	11.10	63.5	33.5	13.5	N	1.7	1.7	1.7	1.7
9	11.20	64.0	34.0	14.0	N	1.8	1.8	1.8	1.8
10	11.30	64.5	34.5	14.5	N	1.9	1.9	1.9	1.9
11	11.40	65.0	35.0	15.0	N	2.0	2.0	2.0	2.0
12	11.50	65.5	35.5	15.5	N	2.1	2.1	2.1	2.1
13	12.00	66.0	36.0	16.0	N	2.2	2.2	2.2	2.2
14	12.10	66.5	36.5	16.5	N	2.3	2.3	2.3	2.3
15	12.20	67.0	37.0	17.0	N	2.4	2.4	2.4	2.4
16	12.30	67.5	37.5	17.5	N	2.5	2.5	2.5	2.5
17	12.40	68.0	38.0	18.0	N	2.6	2.6	2.6	2.6
18	12.50	68.5	38.5	18.5	N	2.7	2.7	2.7	2.7
19	13.00	69.0	39.0	19.0	N	2.8	2.8	2.8	2.8
20	13.10	69.5	39.5	19.5	N	2.9	2.9	2.9	2.9
21	13.20	70.0	40.0	20.0	N	3.0	3.0	3.0	3.0
22	13.30	70.5	40.5	20.5	N	3.1	3.1	3.1	3.1
23	13.40	71.0	41.0	21.0	N	3.2	3.2	3.2	3.2
24	13.50	71.5	41.5	21.5	N	3.3	3.3	3.3	3.3
25	14.00	72.0	42.0	22.0	N	3.4	3.4	3.4	3.4
26	14.10	72.5	42.5	22.5	N	3.5	3.5	3.5	3.5
27	14.20	73.0	43.0	23.0	N	3.6	3.6	3.6	3.6
28	14.30	73.5	43.5	23.5	N	3.7	3.7	3.7	3.7
29	14.40	74.0	44.0	24.0	N	3.8	3.8	3.8	3.8
30	14.50	74.5	44.5	24.5	N	3.9	3.9	3.9	3.9
31	15.00	75.0	45.0	25.0	N	4.0	4.0	4.0	4.0
32	15.10	75.5	45.5	25.5	N	4.1	4.1	4.1	4.1
33	15.20	76.0	46.0	26.0	N	4.2	4.2	4.2	4.2
34	15.30	76.5	46.5	26.5	N	4.3	4.3	4.3	4.3
35	15.40	77.0	47.0	27.0	N	4.4	4.4	4.4	4.4
36	15.50	77.5	47.5	27.5	N	4.5	4.5	4.5	4.5
37	16.00	78.0	48.0	28.0	N	4.6	4.6	4.6	4.6
38	16.10	78.5	48.5	28.5	N	4.7	4.7	4.7	4.7
39	16.20	79.0	49.0	29.0	N	4.8	4.8	4.8	4.8
40	16.30	79.5	49.5	29.5	N	4.9	4.9	4.9	4.9
41	16.40	80.0	50.0	30.0	N	5.0	5.0	5.0	5.0
42	16.50	80.5	50.5	30.5	N	5.1	5.1	5.1	5.1
43	17.00	81.0	51.0	31.0	N	5.2	5.2	5.2	5.2
44	17.10	81.5	51.5	31.5	N	5.3	5.3	5.3	5.3
45	17.20	82.0	52.0	32.0	N	5.4	5.4	5.4	5.4
46	17.30	82.5	52.5	32.5	N	5.5	5.5	5.5	5.5
47	17.40	83.0	53.0	33.0	N	5.6	5.6	5.6	5.6
48	17.50	83.5	53.5	33.5	N	5.7	5.7	5.7	5.7
49	18.00	84.0	54.0	34.0	N	5.8	5.8	5.8	5.8
50	18.10	84.5	54.5	34.5	N	5.9	5.9	5.9	5.9
51	18.20	85.0	55.0	35.0	N	6.0	6.0	6.0	6.0
52	18.30	85.5	55.5	35.5	N	6.1	6.1	6.1	6.1
53	18.40	86.0	56.0	36.0	N	6.2	6.2	6.2	6.2
54	18.50	86.5	56.5	36.5	N	6.3	6.3	6.3	6.3
55	19.00	87.0	57.0	37.0	N	6.4	6.4	6.4	6.4
56	19.10	87.5	57.5	37.5	N	6.5	6.5	6.5	6.5
57	19.20	88.0	58.0	38.0	N	6.6	6.6	6.6	6.6
58	19.30	88.5	58.5	38.5	N	6.7	6.7	6.7	6.7
59	19.40	89.0	59.0	39.0	N	6.8	6.8	6.8	6.8
60	19.50	89.5	59.5	39.5	N	6.9	6.9	6.9	6.9
61	20.00	90.0	60.0	40.0	N	7.0	7.0	7.0	7.0
62	20.10	90.5	60.5	40.5	N	7.1	7.1	7.1	7.1
63	20.20	91.0	61.0	41.0	N	7.2	7.2	7.2	7.2
64	20.30	91.5	61.5	41.5	N	7.3	7.3	7.3	7.3
65	20.40	92.0	62.0	42.0	N	7.4	7.4	7.4	7.4
66	20.50	92.5	62.5	42.5	N	7.5	7.5	7.5	7.5
67	21.00	93.0	63.0	43.0	N	7.6	7.6	7.6	7.6
68	21.10	93.5	63.5	43.5	N	7.7	7.7	7.7	7.7
69	21.20	94.0	64.0	44.0	N	7.8	7.8	7.8	7.8
70	21.30	94.5	64.5	44.5	N	7.9	7.9	7.9	7.9
71	21.40	95.0	65.0	45.0	N	8.0	8.0	8.0	8.0
72	21.50	95.5	65.5	45.5	N	8.1	8.1	8.1	8.1
73	22.00	96.0	66.0	46.0	N	8.2	8.2	8.2	8.2
74	22.10	96.5	66.5	46.5	N	8.3	8.3	8.3	8.3
75	22.20	97.0	67.0	47.0	N	8.4	8.4	8.4	8.4
76	22.30	97.5	67.5	47.5	N	8.5	8.5	8.5	8.5
77	22.40	98.0	68.0	48.0	N	8.6	8.6	8.6	8.6
78	22.50	98.5	68.5	48.5	N	8.7	8.7	8.7	8.7
79	23.00	99.0	69.0	49.0	N	8.8	8.8	8.8	8.8
80	23.10	99.5	69.5	49.5	N	8.9	8.9	8.9	8.9
81	23.20	100.0	70.0	50.0	N	9.0	9.0	9.0	9.0
82	23.30	100.5	70.5	50.5	N	9.1	9.1	9.1	9.1
83	23.40	101.0	71.0	51.0	N	9.2	9.2	9.2	9.2
84	23.50	101.5	71.5	51.5	N	9.3	9.3	9.3	9.3
85	24.00	102.0	72.0	52.0	N	9.4	9.4	9.4	9.4
86	24.10	102.5	72.5	52.5	N	9.5	9.5	9.5	9.5
87	24.20	103.0	73.0	53.0	N	9.6	9.6	9.6	9.6
88	24.30	103.5	73.5	53.5	N	9.7	9.7	9.7	9.7
89	24.40	104.0	74.0	54.0	N	9.8	9.8	9.8	9.8
90	24.50	104.5	74.5	54.5	N	9.9	9.9	9.9	9.9
91	25.00	105.0	75.0	55.0	N	10.0	10.0	10.0	10.0
92	25.10	105.5	75.5	55.5	N	10.1	10.1	10.1	10.1
93	25.20	106.0	76.0	56.0	N	10.2	10.2	10.2	10.2
94	25.30	106.5	76.5	56.5	N	10.3	10.3	10.3	10.3
95	25.40	107.0	77.0	57.0	N	10.4	10.4	10.4	10.4
96	25.50	107.5	77.5	57.5	N	10.5	10.5	10.5	10.5
97	26.00	108.0	78.0	58.0	N	10.6	10.6	10.6	10.6
98	26.10	108.5	78.5	58.5	N	10.7	10.7	10.7	10.7
99	26.20	109.0	79.0	59.0	N	10.8	10.8	10.8	10.8
100	26.30	109.5	79.5	59.5	N	10.9	10.9	10.9	10.9





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