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COUNTY BOROUGH OF SALFORD.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1923.

BY

H. OSBORNE,

MEDICAL OFFICER OF HEALTH.

JOHN HEYWOOD LTD.,
Printers and Publishers, Manchester and London.

MEMBERS OF THE HEALTH COMMITTEE.

1923–1924.

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Councillor CORBEY, J.P., *Deputy-Chairman.*

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	,, A. WILLIAMSON, J.P.

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Mrs. BERRY ..... Representing the Pendleton Co-operative Industrial Society Limited.

Mrs. CUDDEFORD .... A member of the Maternity and Child Welfare Sub-Committee.

Miss E. BOWDEN ... Representing the Manchester and Salford Women Citizens' Association.

STAFF.

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Honorary Consulting Medical Officer ..	C. H. TATTERSALL, M.R.C.S., L.R.C.P. D.P.H.
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Medical Superintendent, Ladywell Sanatorium	J. W. MULLEN, L.R.C.P.I.
Assistant Resident Medical Officer, Ladywell Sanatorium	R. J. STALEY, M.B., Ch.B.
Resident Medical Officer, Nab Top Tuberculosis Sanatorium, Marple ..	H. M. FLEMING, B.A., M.D., B.A.O. D.P.H.
Assistant Medical Officers for the Medical Inspection of School Children	H. HEATHCOTE, M.D., D.P.H. G. HEATHCOTE, M.B., Ch.B. E. N. RAMSBOTTOM, M.A., M.D. (Lond.) B.S., B.Sc., D.P.H., M.R.C.S. L.R.C.P. J. G. MCKINLAY, M.B., Ch.B.
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School Dentists	H. MALLINSON, L.D.S.; A. E. SHERRATT L.D.S.
Child Welfare Medical Officers (Whole Time)	H. K. BRADE-BIRKS, M.B., Ch.B. M.R.C.S., D.P.H. (Senior). F. G. WILCOCKS, M.B., Ch.B., D.P.H.
Child Welfare Medical Officer (Part Time)	E. C. BYRD, M.B., Ch.B., M.Sc.
Veterinary Inspector	J. D. WHITEHEAD, F.R.C.V.S., D.V.S.
Public Analyst	G. D. ELSDON, B.Sc., F.I.C., F.C.S.
Chief Sanitary Inspector	J. P. CARGILL, M.R.S.I.
Chief Clerk	W. K. CHALONER.

TO THE HEALTH COMMITTEE.

GENTLEMEN,

I have the honour to present my second Annual Report on the health of the Borough and the work of the Public Health Department for the year 1923.

The erection, at Ladywell Sanatorium, of additional accommodation for nurses and domestics, is being proceeded with and it is hoped that before another Report is presented, that this building will be completed.

It is anticipated that during 1924, a new Bacteriological Laboratory and also a Maternity and Babies' Hospital will be established in Salford.

Attention is drawn to a special report on " Atmospheric Pollution " on pages 51 to 75.

The statistical matter in the report is presented in the usual way, there being nothing in the nature of an epidemic to report.

I have the honour to be, Gentlemen,

Your obedient servant,

H. OSBORNE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
143, REGENT ROAD, SALFORD,
1924.

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SECTION 1.

MORTALITY STATISTICS.

STATISTICAL SUMMARY, 1923.

ılation—Estimated to the middle of the year				241,600
„ (Census, 1921) „ „ „				*234,045
hs	**Males** .... 2,580 / **Females**... 2,467		**Total**	5,047
ual Rate of Births per 1,000 of the Population				20·9
hs under One Year of Age per 1,000 Births				98
hs	**Males** .... 1,654 / **Females**... 1,608		**Total**	3,262
ual Rate of Mortality per 1,000				13·5
ual Rate of Mortality per 1,000 from the seven principal Zymotic Diseases.				0·8
ss of Registered Births over Deaths				1,785
nated Annual Increase of Population				1,600

ity.—The mean density of the Borough is equal to 46·4 persons per acre.

.—The Municipal Borough of Salford has a total area of 5,202 acres

ıtion.—The mean elevation of the Borough is 140 feet above sea-level, and varies between 85 feet and 250 feet.

* Owing to the census having taken place during the holiday season, this e is low. The Registrar-General estimated the normal resident population mid-year 1921 to be 239,100.

TABLE M. 3.

DEATHS IN WARDS FOR THE YEAR 1923.

CAUSES OF DEATH.	AT ALL AGES.																
	Borough.	Albert Park.	Charlestown.	Claremont.	Crescent.	Docks.	Kersal.	Langworthy.	Mandley Park.	Ordsall Park.	Regent.	St. Matthias'	St. Paul's.	St. Thomas'.	Seedley.	Trinity.	Weaste.
Malaria	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Enteric Fever	6	..	..	..	..	2	1	..	..	..	..	2	..	..	1	..	..
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	12	..	1	..	1	..	1	..	..	3	..	..	4	..	..	..	2
Scarlet Fever	19	..	2	..	1	1	..	2	1	3	3	3	2	..	..	1	..
Whooping Cough	48	..	2	3	2	2	4	1	2	6	5	8	5	..	..	8	..
Diphtheria and Croup	31	..	1	..	7	1	1	1	3	3	2	4	3	3	..	2	..
Chicken Pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Influenza	98	13	7	2	5	5	3	10	4	7	7	9	6	5	4	8	3
Erysipelas	7	..	..	..	1	1	..	..	..	1	1	..	1	..	1	..	1
Encephalitis Lethargica	4	1	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuberc.)	311	18	19	7	33	26	6	11	24	24	27	25	29	18	4	25	15
Tubercular Meningitis	23	1	..	1	2	..	2	1	..	3	2	2	2	1	2	4	..

Meningitis	26	1	3	..	2	1	2	3	..	2	..	..	1	6	3	1	1	
Cerebro-Spinal Meningitis	3	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Organic Heart Disease	274	31	8	14	26	17	6	12	14	27	25	15	14	11	14	20	20	
Bronchitis	389	18	34	8	41	19	8	18	16	34	34	41	25	21	12	43	17	
Pneumonia (all forms)	358	17	30	12	31	21	9	19	23	47	28	20	16	24	5	44	12	
Other Diseases of Respiratory Organs	33	3	3	1	5	2	..	1	1	..	2	2	2	3	..	6	2	
Diarrhœa and Enteritis	80	3	5	..	13	4	1	3	3	11	11	4	5	5	2	7	3	
Appendicitis and Typhlitis	19	3	..	1	..	2	..	1	2	1	1	..	3	1	..	3	1	
Cirrhosis of Liver	10	2	1	1	1	..	..	..	..	..	1	2	..	..	1	1	..	
Alcoholism	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	
Nephritis and Bright's Disease	69	3	5	2	6	5	5	2	3	4	11	4	2	5	3	5	4	
Puerperal Fever	3	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	
Other Accidents and Diseases of Pregnancy and Parturition	13	1	..	1	2	..	1	1	1	..	2	..	..	...	2	1	1	
Congenital Debility and Malformation, including Premature Birth	180	11	11	5	18	11	2	8	9	19	10	18	15	13	4	21	5	
Violent Deaths (excluding Suicide)	95	3	6	2	8	6	4	3	2	9	7	4	6	11	..	15	9	
Suicide	21	1	4	1	4	1	..	..	2	..	4	1	..	2	..	1	..	
Other Defined Diseases	761	65	43	41	67	56	31	32	48	43	62	61	45	43	26	61	37	
Ill-defined or Unknown	11	..	..	..	..	..	..	..	3	2	2	..	..	..	2	2	..	
Totals	**3262**	**230**	**209**	**123**	**300**	**212**	**99**	**144**	**184**	**279**	**277**	**251**	**206**	**199**	**98**	**307**	**144**	

TABLE M. 4.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1923.

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.							
	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.
ALL CAUSES—Certified	3,261	493	149	109	102	183	452	868
Uncertified	1	..	..	..	..	..	..	..
Malaria	1	..	..	..	..	..	1	..
Enteric Fever	6	..	..	..	..	2	3	1
Small Pox	..	..	..	..	..	..	..	..
Measles	12	8	2	2	..	..	..	..
Scarlet Fever	19	..	4	8	4	2	1	..
Whooping Cough	48	18	14	15	..	1	..	..
Diphtheria and Croup	31	5	5	10	9	1	1	..
Chicken Pox	..	..	..	..	..	..	..	..
Influenza	98	6	4	2	1	3	24	2
Erysipelas	7	..	..	..	..	..	3	1
Encephalitis Lethargica	4	..	..	1	1	..	2	..
Anthrax	..	..	..	..	..	..	..	..
Phthisis (Pulmonary Tuberculosis)	311	..	2	1	10	79	134	7
Tuberculous Meningitis	23	4	3	6	6	1	2	..
Other Tuberculous Diseases	48	1	9	4	13	6	13	1
Cancer, malignant disease	300	..	..	1	1	1	27	17
Rheumatic Fever	7	..	..	..	1	2	2	..
Meningitis	26	6	3	6	6	2	2	..
Cerebro-Spinal Meningitis	3	..	1	..	..	1	1	..
Poliomyelitis	..	..	..	..	..	..	..	..
Organic Heart Disease	274	4	..	2	7	16	38	10
Bronchitis	389	31	13	7	1	2	26	10
Pneumonia (all forms)	358	82	63	24	8	12	56	7
Other diseases of Respiratory organs	33	3	..	1	2	4	2	1
Diarrhœa and Enteritis	80	59	10	2	..	1	2	..
Appendicitis and Typhlitis	19	..	..	1	3	5	4	..
Cirrhosis of Liver	10	..	..	..	..	..	..	..
Alcoholism	2	..	..	..	..	..	1	..
Nephritis and Bright's Disease	69	..	..	..	3	5	12	3
Puerperal Fever	3	..	..	..	..	1	2	..
Other accidents and diseases of Pregnancy and Parturition	13	..	..	..	..	..	13	..
Congenital Debility and Malformation, including Premature Birth	180	177	2	1	..	..	..	..
Violent Deaths, excluding Suicide	95	6	4	3	12	12	18	3
Suicide	21	..	..	..	..	1	6	..
Other Defined Diseases	761	80	10	12	14	23	56	20
Diseases ill-defined or unknown	11	3	..	..	..	..	..	..
Totals	3,262	493	149	109	102	183	452	8

TABLE M. 7.

IRTHS IN THE COUNTY BOROUGH OF SALFORD AND IN ITS WARDS, DISTINGUISHING DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD.

FOR THE YEAR 1923.

Ward.	Births.		Percentage of Illegit. Births to total Births.	Deaths under One Year.		Proportion of Deaths under One Year per 1,000 Births.		
	Total.	Illegit.		Total.	Illegit.	Total.	Legit.	Illegit.
bert Park	331	8	2·4	24	1	73	71	125
arlestown	351	8	2·3	31	1	88	87	125
aremont	102	2	2·0	8	1	80	70	500
escent	453	17	3·8	50	4	110	106	235
cks	237	6	2·5	25	..	105	108	..
rsal	221	6	2·7	13	1	59	56	167
ngworthy	221	7	3·2	21	2	95	89	286
ndley Park	301	11	3·7	22	3	73	66	273
dsall Park	410	12	3·0	64	5	156	148	417
gent	410	11	2·7	42	4	102	95	364
Matthias'	354	11	3·1	47	2	132	131	182
Paul's	346	12	3·5	33	1	95	96	83
Thomas'	333	4	1·2	35	2	105	100	500
dley	136	2	1·5	13	..	96	97	..
nity	404	18	4.4	53	7	131	119	389
easte	437	71	16·2	12	1	27	30	14
Totals	**5,047**	**206**	**4·1**	**493**	**35**	**98**	**95**	**170**
CORRESPONDING DATA FOR THE BOROUGH FOR THE TEN YEARS 1913-1922.								
rough	**54,113**	**2,338**	**4·3**	**6,404**	**447**	**118**	**115**	**191**

ncludes births in the Hope Hospital.

TABLE M. 14.

SHOWING THE BIRTH-RATES, ALSO RATES OF MORTALITY FROM ALL CAUSES, THE SEVEN PRINCIPAL ZYMOTIC DISEASES, AND FROM PHTHISIS, CA NERVOUS DISEASES, HEART DISEASES, BRONCHITIS, PNEUMONIA, THE INFANT MORTALITY RATE, DURING THE YEARS 1878 TO 1923

Years.	Population.	Rates per 1,000 Population from									Death under One Year to 1,000 Births
		Births.	Deaths, All Causes.	Seven Principal Zymotic Diseases.	Phthisis.	Cancer.	Nervous Diseases.	Heart Diseases.	Bronchitis.	Pneumonia.	
1878..	160,277	44·7	27·1	5·4	2·7	0·5	3·5	1·1	3·6	1·8	185
1879*	165,899	43·0	26·7	4·2	2·9	0·4	3·7	1·2	4·3	1·8	170
1880..	171,727	41·4	27·9	7·4	2·7	0·4	3·2	0·9	3·4	1·9	197
1881..	177,760	38·8	22·5	3·0	2·5	0·5	3·1	1·1	3·6	1·6	163
1882..	179,855	39·7	23·7	4·0	2·4	0·4	3·6	1·1	2·8	1·7	177
Average 5 years.		**41·5**	**25·6**	**4·8**	**2·6**	**0·4**	**3·4**	**1·1**	**3·5**	**1·8**	**178**
1883..	181,951	37·3	23·6	3·4	2·7	0·4	3·1	1·2	3·0	1·7	171
1884*	184,047	38·8	24·4	4·4	2·6	0·5	2·9	1·1	2·8	1·7	184
1885..	186,142	37·6	23·0	3·6	2·6	0·5	2·9	1·2	3·0	1·9	174
1886..	188,238	38·5	24·8	4·1	2·6	0·5	2·8	1·3	3·3	1·8	197
1887..	190,334	36·6	25·5	4·9	2·3	0·5	3·2	1·3	2·9	2·2	195
Average 5 years.		**37·8**	**24·3**	**4·1**	**2·6**	**0·5**	**3·0**	**1·2**	**3·0**	**1·9**	**184**
1888..	192,429	37·1	24·8	3·9	2·3	0·5	3·0	1·1	3·0	2·1	184
1889..	194,525	35·9	25·1	5·3	1·9	0·6	2·5	1·3	2·6	1·9	181
1890*	196,621	36·1	27·7	4·4	2·2	0·5	2·0	1·3	3·4	3·8	198
1891..	198,775	36·3	26·0	3·4	2·2	0·5	2·2	1·1	3·7	3·0	194
1892..	200,833	35·8	24·6	4·6	1·9	0·6	2·0	1·2	2·6	2·9	186
Average 5 years.		**36·2**	**25·6**	**4·3**	**2·1**	**0·5**	**2·3**	**1·2**	**3·1**	**2·7**	**189**
1893..	203,015	34·7	24·1	4·2	1·9	0·6	2·0	1·4	2·6	2·3	211
1894..	205,220	34·3	21·1	3·3	1·8	0·6	2·0	1·1	1·9	2·3	174
1895..	207,449	35·9	25·6	5·0	1·9	0·6	2·0	1·3	2·6	2·7	229
1896*	209,703	35·6	23·1	4·2	1·5	0·6	2·3	1·4	2·2	2·7	200
1897..	211,981	35·2	23·9	5·6	1·8	0·6	2·1	1·3	2·4	2·1	219
Average 5 years.		**35·1**	**23·6**	**4·5**	**1·8**	**0·6**	**2·1**	**1·3**	**2·3**	**2·4**	**207**
1898..	214,284	34·9	22·8	4·2	1·8	0·8	2·2	1·2	2·2	2·2	213
1899.	216,612	34·1	23·9	4·4	1·8	0·6	2·3	1·4	2·5	2·7	211
1900.	218,965	33·3	25·3	4·1	1·8	0·6	2·4	1·7	3·2	2·8	208
1901.	221,212	29·2	21·7	4·2	1·8	0·7	1·9	1·5	2·3	1·9	205
1902*	222,233	34·0	19·3	2·7	1·7	0·7	2·0	1·5	2·2	2·1	157
Average 5 years.		**33·1**	**22·6**	**3·9**	**1·8**	**0·7**	**2·2**	**1·5**	**2·5**	**2·3**	**199**
1903..	223,260	32·6	19·4	2·9	1·8	0·7	1·9	1·4	2·1	1·9	168
1904..	224,299	32·4	21·4	4·4	2·0	0·6	1·8	1·7	2·2	1·9	193
1905..	225,327	31·8	17·7	2·6	1·5	0·6	1·7	1·6	1·8	1·8	148
1906..	226,367	31·2	19·1	3·3	1·7	0·8	1·7	1·5	2·0	1·8	162
1907..	227,413	30·6	18·5	2·2	1·7	0·7	1·7	1·6	2·1	2·3	140
Average 5 years.		**31·7**	**19·2**	**3·1**	**1·7**	**0·7**	**1·8**	**1·6**	**2·0**	**1·9**	**162**

TABLE M. 14—*continued.*

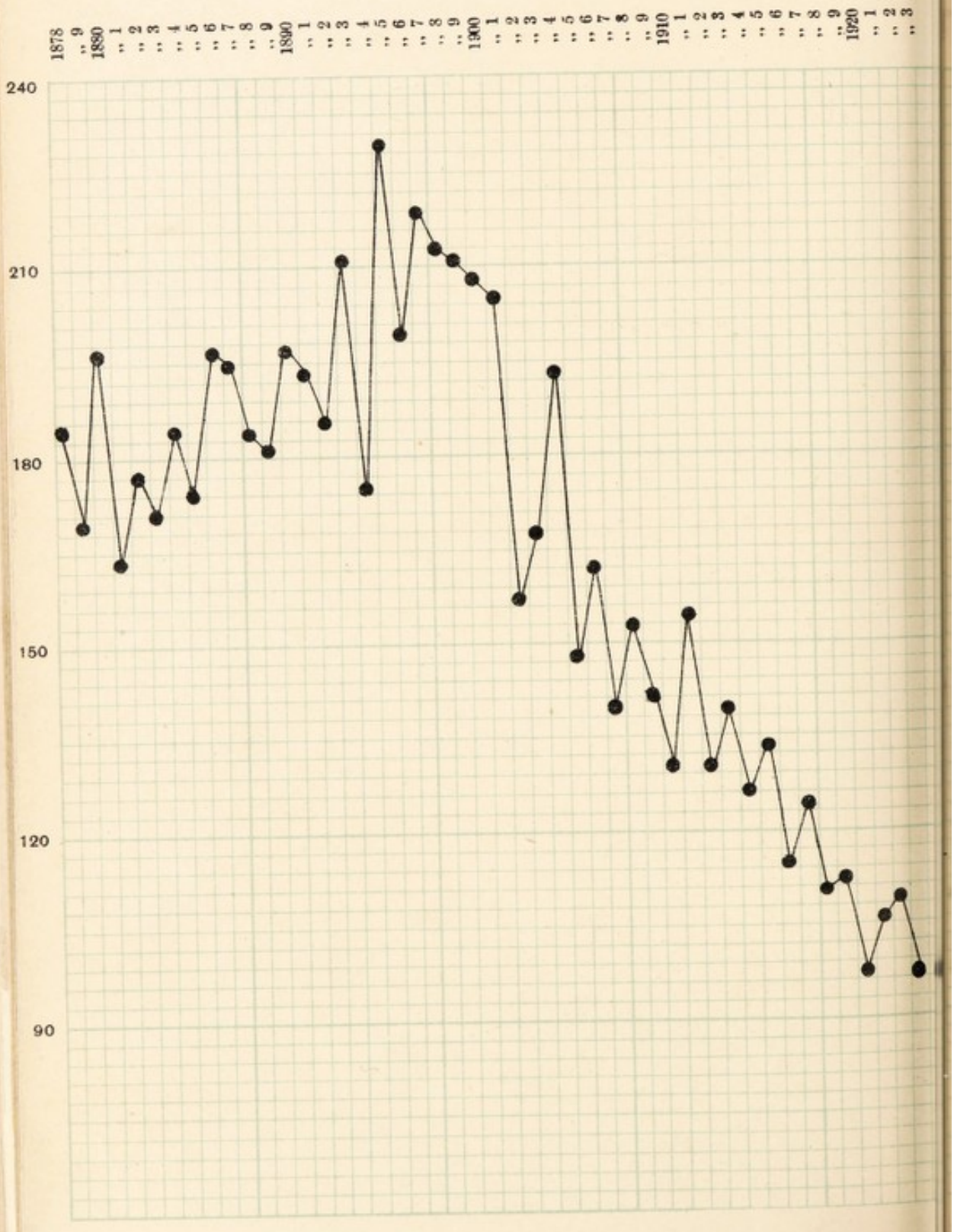
opulation.	Rates per 1,000 Population from Births.	Deaths, All Causes	Seven Principal Zymotic Diseases.	Phthisis.	Cancer.	Nervous Diseases.	Heart Diseases.	Bronchitis.	Pneumonia.	Deaths under One Year to 1,000 Births.	Marriage Rate.
28,463	31·2	18·7	3·2	1·6	0·7	1·6	1·4	1·9	1·7	153	15·5
29,519	29·5	19·0	2·5	1·5	0·8	1·7	1·4	2·3	2·3	141	15·6
30,579	28·6	16·2	1·8	1·4	0·9	1·6	1·4	1·8	1·7	131	16·0
31,641	27·4	17·4	2·5	1·6	0·9	1·3	1·3	1·8	1·8	154	..
32,726	26·8	17.2	2·2	1·5	1.0	1·4	1·5	2·1	**2·0**	130	..
5 years.	**28·7**	**17·7**	**2·4**	**1·5**	**0·9**	**1·5**	**1·4**	**2·0**	**1·9**	**142**	..
33,849	27·0	16·3	1·9	1·4	1·0	1·4	1·8	1·8	1·7	139	..
34,975	26·9	17·1	1·9	1·6	1·1	1·4	1·8	1·8	1·8	126	..
19,979†	24·8	19·1	2·8	1·7	1·1	1·4	1·6	2·3	1·9	134	..
14,229†	21·8	15·8	1·2	1·6	1·0	1·3	1·3	1·9	**1·5**	115	..
11,373†	18·9	16·0	1·6	1·5	1·2	1·4	1·3	2·0	1·4	124	..
years.	**24·3**	**16·8**	**1·9**	**1·6**	**1·0**	**1·4**	**1·6**	**2·0**	**1·7**	**128**	..
09,274†	18·3	18·0	1·0	1·6	1·1	1·2	1·1	2·3	1·9	111	..
26,225†	18·8	15·8	0·8	1·2	1·1	1·1	1·1	2·4	1·5	113	..
35,239	27·3	13·7	0·9	1·2	1·0	1·0	1·0	1·8	1·1	98	..
39,100	25·2	13·9	1·1	1·3	1·0	1·0	1·2	1·7	1·5	106	..
40,700	22·1	14·6	1·3	1·3	1·1	0·9	1·1	1·9	1·7	110	..
years.	**22·3**	**15·2**	**1·0**	**1·3**	**1·0**	**1·0**	**1·1**	**2·0**	**1·5**	**108**	..
41,600	20·9	13·5	0·8	1·3	1·2	0·9	1·1	1·6	1·5	98	..

s 1879, 1884, 1890, 1895, 1902, 1908, and 1913, the facts are those registered in 53 instead of 52 weeks; corrections have therefore been made in calculating the rates. † Civil population.

INFANT MORTALITY

(DEATHS PER 1000 BIRTHS)

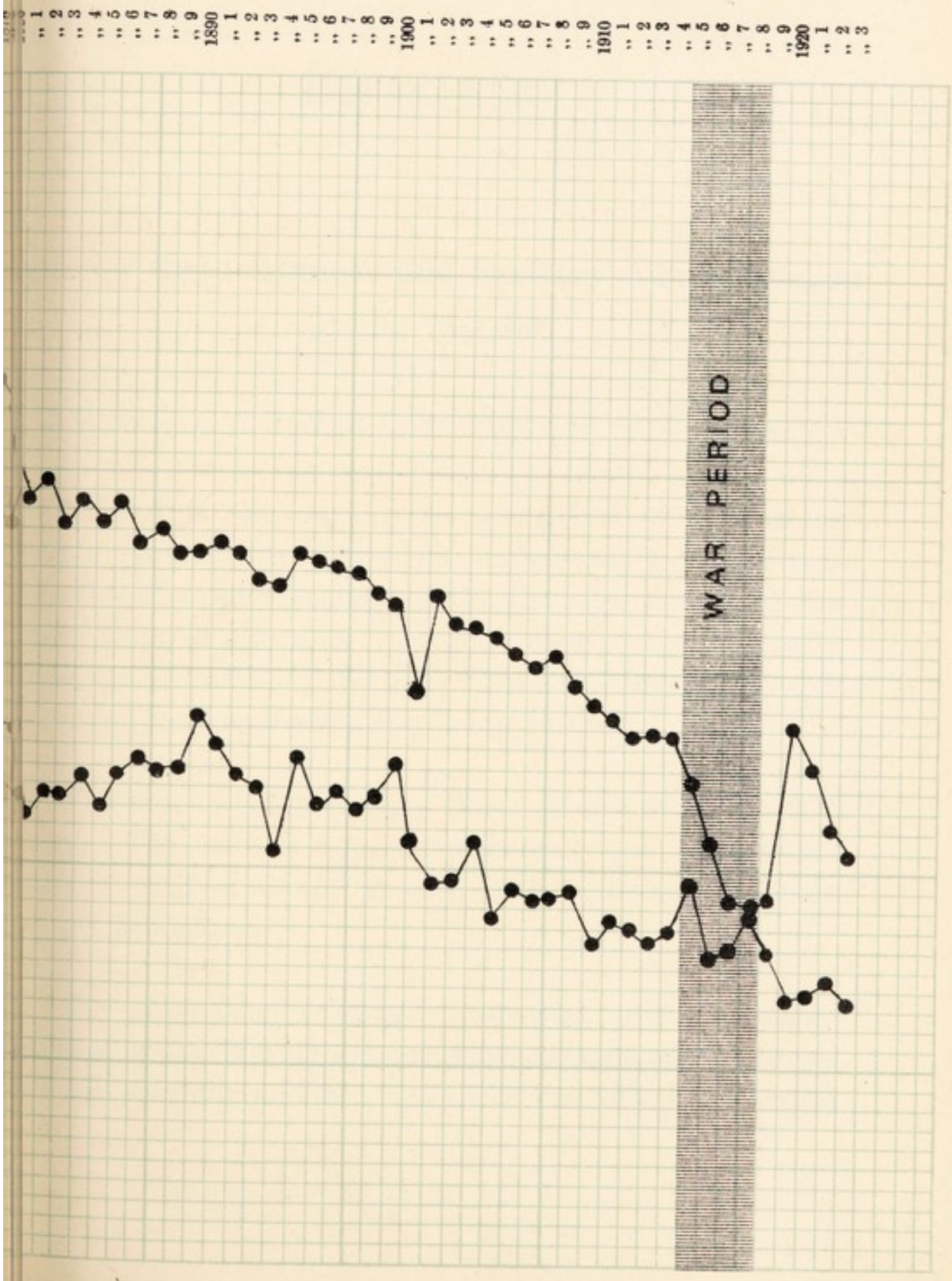
COUNTY BOROUGH OF SALFORD.



UPPER CURVE—BIRTHS PER 1000 OF POPULATION

LOWER CURVE—DEATHS PER 1000 OF POPULATION

COUNTY BOROUGH OF SALFORD.



SECTION II.

General Work of the Health Department.

Sanitary Circumstances and Sanitary Administration of the District.

Natural and Social Conditions of the District.

Salford is situated in the south-east of Lancashire and is partially divided from Manchester by the River Irwell. The older portion of the Borough lies along the right bank of the river and the ground rises gradually from an elevation of 85 feet above sea level to about 250 feet, the mean elevation being 140 feet.

The area of the Municipal Borough of Salford is 5,202 acres. The subsoil consists principally of clay interspersed with sand and gravel, with occasional patches of red sandstone.

The population is largely industrial; a considerable portion of the Borough is occupied by mills and factories for the spinning and weaving of cotton and other textile

fabrics, ironworks, brassworks, tool makers, dyeworks and soapworks.

The principal docks and a portion of the Manchester Ship Canal are situate in Salford.

There is no special influence of any particular occupation on the public health of the district.

The population of Salford avail themselves of the hospital accommodation of both Salford and Manchester.

The voluntary hospitals are :—

The Salford Royal Hospital.
The Manchester Royal Infirmary.
The Manchester Eye Hospital.
The Manchester Skin Hospital.
The Manchester Children's Hospital.
The Manchester Northern Hospital.
The Manchester St. Mary's Hospitals.

Under the Poor Law Guardians.

Hope Hospital (910 beds).

Infectious diseases hospitals, including tuberculosis

Ladywell Sanatorium.
Crossley Sanatorium.
Nab Top Sanatorium (in course of erection).
Drinkwater Park Hospital.
Clayton Hospital (for smallpox by arrangement with Manchester).

Salford Local Acts and Orders.

The Salford Borough Act, 1857.

The Salford Improvement Act, 1862.

The Salford Improvement Act, 1867.

The Salford Improvement Act, 1870.

The Salford Improvement Act, 1871.

The Salford Tramways and Improvement Act, 1875.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Order Confirmation (No. 8) Act, 1882.

An Order, dated 20th December, 1882, and made by the Local Government Board under the provisions of the Divided Parishes and Poor Law Amendment Act, 1876, as amended and extended by the Poor Law Act, 1879, amalgamating a detached part of the Township of Pendlebury with the Township of Pendleton.

The Salford Corporation Tramways Order, 1885, confirmed by the Tramways Orders Confirmation (No. 2) Act, 1885.

The Salford Corporation Act, 1886.

The Salford Electric Lighting Order, 1890, confirmed by the Electric Lighting Orders Confirmation (No. 2) Act, 1890.

The Salford Corporation Act, 1891.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Orders Confirmation (No. 14) Act, 1891.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional

Orders Confirmation (Housing of Working Classes) Act, 1891.

Provisional Order relating to the Borough of Salford confirmed by the Local Government Board's Provisional Order Confirmation (No. 12) Act, 1892.

The Salford Improvement Act, 1893.

The Salford Corporation Act, 1897.

The Salford Order, 1898.

An Order, dated 2nd March, 1899, and made by the Local Government Board under the provisions of the Housing of the Working Classes Act, 1890, modifying an improvement scheme relating to the Borough of Salford.

The Salford Corporation Act, 1899.

The Salford Corporation Act, 1900.

The Salford Corporation Act, 1901.

The Salford Corporation Act, 1902.

The Salford Corporation Act, 1903.

The Salford Order, 1906.

The Salford Order, 1908.

The Salford Order, 1912.

The Salford Corporation (Standard of Calorific Power) Order, 1918.

The Salford (Union of Townships) Order, 1918.

The Salford Corporation Act, 1920.

Public Health Acts Amendment Act, 1907, Section 51.

ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL.

The Baths and Wash-house Acts. Adopted October , 1876.

The Labouring Classes Lodging Houses Act, 1851 ; he Labouring Classes Dwelling Houses Act, 1866 ; he Labouring Classes Dwelling Houses Act, 1867, as mended by the Housing of the Working Classes Act, 885. Adopted July 2, 1890.

Infectious Diseases (Notification) Act, 1889. Adopted th February, 1920.

Housing of the Working Classes Act, 1890, part III. dopted February 4, 1891.

The Infectious Disease (Prevention) Act, 1890 (except ections 14 and 19) and Parts 2, 3, 4 and 5 of the Public ealth Acts Amendment Act, 1890. Adopted January 1891.

The Public Libraries Act, 1892. Adopted on poll ratepayers, reported to Council, October 5, 1892.

The Museums and Gymnasiums Act, 1891. Adopted ebruary 7, 1894.

The Private Street Works Act, 1892. Adopted April 1894.

Dogs Order, 1906. Regulations as to Wearing of llars by Dogs. Adopted May 5, 1909.

Notification of Births Act, 1907. Adopted January 1914.

Section 95 of the Public Health Acts Amendment t, 1907. Order issued by Local Government Board, ted 27th October, 1908, declaring the above section be in force in the County Borough of Salford.

Public Health Acts Amendment Act, 1907. Order of Local Government Board, dated 28th August, 1909, that on and after 16th October, 1909, Section 47 and Part V. of the Act should be in force in the County Borough of Salford.

Public Health Acts Amendment Act, 1907. Order of Local Government Board, dated 22nd April, 1914, that on and after 3rd June, 1914, Sections 23, 27, 33 and 76 of the Act should be in force in the County Borough of Salford.

Sanitary Circumstances.

Water.—The water supply is obtained from the Manchester Corporation's reservoirs at Woodhead and Thirlmere. It is ample in quantity and excellent in quality.

Rivers and Streams.—The question of river pollution is in the hands of the River Irwell Conservancy Committee.

Drainage and Sewage.—The drains and sewers of the district are satisfactory; the question of adequate sewage disposal is under consideration.

Scavenging.—The removal and disposal of house refuse is under the authority of the Lighting and Cleansing Committee of the Corporation.

Sanitary Inspection of District.

Staff.—The staff of the Department consists of the Borough Analyst, Veterinary Surgeon, Chief Inspector, a Deputy Chief Inspector, 12 Assistant Inspectors, one Lady Inspector and two Laboratory Assistants.

The systematic inspection of the Borough was conducted during the year 1923 on the same lines as in previous years. The result of the inspections may be gathered from a perusal of the "Register of Work Done," which is to be found at the end of this section of the report. It shows that the number of complaints received at the office of the Department was 4,154, as compared with 4,569 received in 1922, also that 14,484 dwelling houses were inspected during the year. The details of each section of the work will be found under the special heading.

During the year one privy has been converted to a water closet, and 284 pail closets which were certified as unsanitary were also converted.

Milkshops.

There were 798 milkshops on the register at the end of 1923. Four were discontinued during the year, and 7 newly registered. Three hundred and ninety-three visits were made during the year. Two cases of scarlet fever and three of diphtheria occurred in milkshops during 1923. All the patients were removed to the sanatorium, and precautions taken in all the cases to prevent the spread of the disease.

Shops Act, 1912.

The shops in the Borough are classified under 53 headings. The card index shows a total of 5,220 shops, as compared with 5,219 last year.

The number of visits made was 327.

The appeal lodged against the decision of the magistrates in one case, reported in the previous year, was dismissed.

TABLE G 1.

COMMON LODGING-HOUSES, 1923.

	Wards.				
	Crescent.	St. Paul's.	St. Thomas's.	Trinity.	Total.
Number on Register	7	1	2	6	16
Number added to Register in 1923	..	..	..	..	..
Number removed from Register in 1923	..	..	..	..	..
Number of Rooms	61	7	12	55	135
,, ,, Beds	301	36	31	595	963
Average Number occupied each night—Males	196	20	26	489	711
Females	..	..	..	..	..
Notices served on Landlords	6	..	1	..	7
,, ,, Keepers	..	..	..	..	..
Number of Day Inspections	197	25	31	220	473
,, Night ,,	..	..	..	..	..

Common Lodging Houses.

There were 16 Common Lodging Houses on the register at the end of the year, including the Salford House in Bloom Street; seven are in the Crescent Ward, six in Trinity, one in St. Paul's, and two in St. Thomas' wards. These houses contain 135 rooms, with 963 beds. The average number of beds occupied per night was 711 beds for males and none for females. Four hundred and seventy-three inspections were made during the day time.

One house in Trinity Ward and one house in Crescent Ward changed hands during the year.

These Lodging Houses have been kept in good and clean condition during the year, and the Bye-laws have been observed.

Houses Sub-let in Lodgings.

There are 285 houses let in apartments in the Borough; these contain 1,273 rooms. Nineteen houses were registered during the year and 34 discontinued.

The registration of these houses gives us power to inspect them at any time. They have been inspected from time to time, and they have received 2,789 inspections.

Seamen's Lodging Houses.

There are 16 Seamen's Lodging Houses in the Borough, containing 71 rooms and 200 beds. There have been 17 applications for renewals and new licences. One house was given up. The Bye-laws in force

regulating these houses have been carried out, and the houses generally kept in good and clean condition. Five hundred and thirty visits have been made during the day time and 39 visits during the night time.

Workshops.

At the end of the year there were 2,017 workshops on the register. These have been regularly inspected by the Lady Inspector of Workshops and by the District Inspectors, the Lady Inspector visiting those workshops where females are employed and the District Inspectors visiting those premises where males only are employed.

Ninety-eight defects were found in the workshops, the particulars being given in Table B. The chief defects were unsatisfactory sanitary accommodation and want of cleanliness, which were found in 38 cases and 32 cases respectively.

In one instance the ventilation was found to be defective.

Re OUTWORKERS.—The women outworkers' premises are visited by the Lady Inspector of Workshops, and those of the men by the District Inspectors.

During the year 223 visits have been paid.

actories, Workshops, Workplaces, and Homework.

A.—Inspection.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF NUISANCES DURING THE YEAR 1923.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
ctories ..... Including Factory Laundries)...	25	..	..
orkshops ..... ncluding Workshop Laundries).	2017	8	..
orkplaces ..... Other than Outworkers' premises included in Part 3 of this Report).	121	..	..
Total	2163	8	..

B.—Defects Found.

Premises.	Number of Defects.			Number
	Found.	Remedied.	Referred to H.M. Inspector.	
(1)	(2)	(3)	(4)	(5
*Nuisances under the Public Health Act—**				
Want of cleanliness	32	36*	..	
Want of ventilation	1	3	..	
Overcrowding	..	..	..	
Want of drainage of floors	1	1	..	
Other nuisances	3	3	..	
Sanitary accommodation — insufficient	18	15	..	
Sanitary accommodation — unsuitable or defective	17	28†	..	
Sanitary accommodation — not separate for sexes	3	6	..	
Offences under the Factory and Workshop Act—				
Illegal occupation of underground bakehouse (s. 101)	..	..	..	
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	23	21	..	
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)	..	..	..	
Total	98	107	..	

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

† Including defects notified in previous year.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.												OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Number of Addresses of Outworkers received from other Authorities.	Number of Addresses of Outworkers forwarded to other Authorities.	Notices served on Occupiers as to keeping or sending lists.	Prosecutions.		Number of Inspections of Outworkers' premises.	Instances.	Notices served.	Prosecutions.	Instances.	Orders made, S. 110.	Prosecutions, S.S. 109, 110.
	Sending twice in the year.			Sending once in the year.						Failing to keep or permit inspection of lists.	Failing to send lists.							
	Lists.	Outworkers.		Lists.	Outworkers.													
		Contractors.	Workmen.		Contractors.	Workmen.												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Wearing Apparel—																		
1. Making, &c.	40	38	87	4	3	7	245	59	..	..	..	223	..	..	..	..	..	..
2. Cleaning and washing	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lace, lace curtains and nets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Artificial flowers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nets, other than wire nets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tents	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sacks	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Furniture and upholstery	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Fur pulling	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Feather sorting	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Umbrellas, &c	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..
Carding, &c., of buttons, &c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Paper bags and boxes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Basket making	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brush making	2	..	2	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..
Racquet and tennis balls	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stuffed toys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
File making	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Electro plate	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cables and chains	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cart gear	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Locks, latches and keys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anchors and grapnels	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pea picking	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	42	38	89	5	3	9	247	59	..	..	..	225	..	..	..	..	..	..

D.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year. (1)	Number (2)
Tenement Workshops	7
Domestic Workshops	216
Laundries	23
Workshop Bakehouses	232
Other Workshops	642
Total number of Workshops on Register	1,120

E.—Other Matters.

Class. (1)		Number (2)
Matters notified to H.M. Inspector of Factories— Failure to affix abstract of the Factory and Workshop Act (s. 133)		22
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	Notified by H.M. Inspector	40
	Reports (of action taken) sent to H.M. Inspector	52
Other		..
Underground Bakehouses (s. 101)— Certificates granted during the year		..
In use at the end of the year		4

F.—Additional Sanitation for Retail Bakehouses, Sections 97—102.

Number of such premises in the district, 232.

Note to their sanitary condition. Ground floor bakehouses—Good.
Underground— ,, —Satisfactory.

Action taken as to retail bakehouses in 1923, 3 Notices served.

Action taken.	No. of Defects found.	Notices served.	Legal Proceedings.	Defects remedied.	Remarks.
As to Closets, &c., Sec. 97	..	..	..	..	
As to Water Cisterns, Sec. 97	..	..	..	..	
As to Drain Openings, Sec. 97	..	..	..	..	
As to Limewashing, &c., Sec. 97 ..	21	..	..	18	
As to Sleeping Places, Sec. 100 ...	..	..	..	..	

Any proceedings under Section 98 as to retail bakehouses sanitarily unfit, Nil.

Underground Bakehouses.

Number of such premises in district, 4 certified, and 1 not in use at present.

Number certified by District Council under Section 101 (2) in 1923, Nil.

Bakehouses, 1923.

Registered	232
Added to Register.....	12
Discontinued	13
Number of Underground Bakehouses Certified by Authority	4 and 1 not at present in use.
Total Number of Ovens	286
Employees—Males	222
Females	356
Notices Served	3

Fertilisers and Feeding Stuffs Act, 1906.

No samples have been taken under this Act.

Pharmacy Act, 1868.

No licences have been granted in the Borough.

Smoke Nuisance.

Particulars as to smoke nuisances caused by firms during the year 1923, and dealt with by the Health Committee :—

Twenty notices were issued under the Public Health Act.

Four firms were summoned by the Health Committee in respect of smoke nuisances during the year, and the Stipendiary Magistrate fined them in the aggregate £6 15s. During the year 1923, 3,285 smoke observations have been made as against 2,728 in the year 1922 and 2,937 in the year 1921.

One hundred and eighteen stokers and others were cautioned by the Inspector for negligence in firing the furnaces under their charge. At the same time 24 firms were reported to and dealt with by the Health Committee ; also 97 cautionary notices were issued to firms, with a table of smoke observations taken from their chimneys.

Several chimneys have been raised during the year in connection with small workshops.

TABLE SHOWING THE NUMBER OF HALF-HOURLY OBSERVATIONS TAKEN DURING THE YEAR 1923.

Minutes of Black Smoke emitted in half-an-hour.	No. of Observations taken.	Percentage to Total.
No Black Smoke	1,957	59·6
One Minute	901	27·5
Two Minutes	331	10·0
Three Minutes.....	72	2·2
Over Three Minutes.....	24	0·7
Total Observations taken..	3,285	100·0

Manure Receptacles, and Removal of Manure and other Offensive Matter.

The Bye-laws with respect to receptacles for manure and the weekly removal of manure, filth, or other offensive or noxious matter, which came into operation towards the end of 1909, have been enforced during the past year, and special attention has been paid to stable yards where manure quickly accumulates and where no receptacle is provided.

The Bye-laws as regards the regular removal of manure have been well observed.

Offensive Trades.

The following is a list of the offensive trades in the Borough :—

Nature of Trades.	Borough.	Discontinued.	Newly Registered.
Tripe Dressing	5	..	..
Soap Works	3	..	..
Fat Boiling	..	..	..
Tanneries	1	..	..
Skin Dressers	1	..	..
Gut Scrapers	2	..	..
Total	12	..	..

Canal Boats Acts.—

Number of canal boats inspected	159
Number of canal boats conforming to Acts	147
Number of canal boats with one or more infringements ..	12
Total number of infringements	14
Registration	..
Notification of change of master.....	..
Absence of certificates	3
Dilapidation of certificate.....	..
Marking	2
Overcrowding	..

Canal Boats Acts—*continued.*

Separation of sexes	..
Cleanliness	..
Ventilation	..
Ventilators obstructed	..
Painting	2
Provision of water vessel	..
Water vessels broken	..
Removal of bilge water	..
Boats defective and leaking	2
Dilapidation	..
Stoves defective	2
Stove pipes defective	2
Pumps defective	..
Admittance of Inspector	..
Notification of infectious disease	..
Certificates not identifying owners	..
Loading manure without tight bulkheads	1
Number of notices served	8

Other steps taken to secure compliance: Letters written to owners, 1.

Detention of boats for cleansing and disinfection: None.

Legal proceedings taken: None.

Number of boats on register: Not a Registration Authority.

Canal boats registered to carry	722
Men found on the boats	296
Women found on the boats	27
Children under 12 years found on the boats	14

Drainage Inspection.

The testing and examination of all existing drainage is carried out by this Department. Two Inspectors and four labourers are kept continually at work examining drainage, and the following table gives the detailed results of their labours :—

Number of	tests made	724
,,	applications from householders	12
,,	houses affected by the tests	1,084
,,	notices and reports issued	300
,,	notices and reports complied with	291
,,	drain inlets opened and cleared	2,158

Insanitary Conditions Found.

Defects.

Number of	drains wholly and partly choked	686
,,	drains defectively constructed	183
,,	gully traps badly laid	18
,,	drains defectively trapped	29
,,	waste pipes defectively trapped or connected to drains	7
,,	downspouts connected to drains	16
,,	soil pipes with leaking joints or defectively ventilated	30
,,	defective water closets	93
	Total defects	1,062

Reconstruction of Drains and the Construction of New Drains.

Number of	tests applied	657
,,	,, houses affected	510
,,	,, passage main drains affected	4

Mode Wheel Ambulance and Disinfecting Station.

STAFF.—The work of this department is supervised by the Chief Inspector. Under his control there are five drivers, one motor mechanic, five disinfectors, one of whom attends to the steam disinfecting machines, and one labourer who cleans the public conveniences in the Borough. There are three motor ambulances and four motor vans. The disinfecting machines are two large Goddard, Massey and Warner's high-pressure stoves.

The following are the details of the work carried out during the year :—

SALFORD CASES.—1,203 journeys were made by the ambulances ; 2,032 journeys were made for the removal of infected bedding and clothing ; 1,850 houses were disinfected, involving the disinfection of 3,900 rooms ; 1,270 bundles of clothing were disinfected by steam at the station.

OUT-DISTRICT CASES.—266 journeys were made by the ambulances ; 78 journeys were made for the removal of infected bedding and clothing ; 663 bundles of clothing have been disinfected by steam at the Station. Disinfection has been carried out on 8 ships stationed at the Manchester Ship Canal ; 3 journeys were made for the removal of cases from ships at the Salford Docks, and bundles of clothing were disinfected ; 780 journeys were made for the removal of convalescent cases from the Eadywell Sanatorium to their homes.

Salford Cases and Out-District Cases.—7,95 journeys were made during the year, delivering disinfecte bedding and clothing.

One hundred and three bundles of clothing and beddi were destroyed at the owners' request.

Disinfection has been carried out at 1 school, an also at 24 public institutions in the Borough during th year. Two hundred and fourteen books from publ and private libraries have been disinfected.

Thirty-eight verminous children were bathed and the clothing disinfected.

Ten adults and 673 school children were bathed an their clothing disinfected after scabies.

Fourteen midwives were bathed at the station, an their clothing and various instruments disinfected.

Three "contacts" with cases of Infectious Disea were bathed, and their clothing disinfected.

The ambulances belonging to the Salford Union we disinfected on six occasions.

One thousand and thirty-eight journeys were ma in connection with the various hospitals.

One hundred and eighty-two children were remov from the Salford Royal Hospital to their respecti homes after operations for removal of tonsils for adenoi

Sanitary Conveniences.

There are 20 conveniences in the Borough, under the ontrol of the Health Committee, situated :—

Trinity Market, Salford (Male and Female).
Liverpool Street, Salford.
Bolton Road (junction of Claremont Road), Pendleton.
Whit Lane, Pendleton.
Windsor Bridge, Salford.
Blucher Street, Salford.
Stevenson Street, Salford.
Park Lane, Broughton.
Broad Street, Pendleton.
Greengate Arch, Salford.
Eccles New Road, Weaste.
Broughton Bridge.
Frederick Road, Pendleton.
Cross Lane, Salford.
Trafford Road (Eccles New Road corner).
,, ,, (near the Docks).
Oldfield Road (corner of Chapel Street).
Moor Lane, Broughton.
*Cross Lane, Salford (Women's).

These conveniences have been kept in a clean ndition.

* This is a new convenience for women only, situated on the Cattle Market adjoining the Police Station.

TABLE G 2.

NEW HOUSES ERECTED AND HOUSES DEMOLISHED IN 1923.

Wards.	Houses erected.	Houses demolished.
Kersal	22	—
Albert Park	—	—
Mandley Park	4	—
St. Matthias'	—	—
Trinity	—	—
Crescent	—	—
Regent	—	—
Ordsall Park	—	—
Docks	—	—
Charlestown	25	—
St. Thomas'	—	—
St. Paul's	—	—
Langworthy	—	—
Seedley	—	—
Weaste	37	—
Claremont	12	—
	100	—

Increase of Rent and Mortgage Interest (Restrictions) Act, 1920.

The number of applications received for Certificat as to houses being either not reasonably fit for habitatio or not in a reasonable state of repair was 4.

In two instances certificates were granted, but in th other two cases the conditions found did not justify th issue of Certificates, but in each case considerable repai were carried out.

TABLE G 3.

Cases heard before Magistrates, 1923.

Offence.	No. of Cases.	Decision of Justice.	Total Fine, without Costs.
			£ s. d.
r consigning milk to Salford Milk lealer which was not of the nature, substance and quality of the article lemanded.	8	1 fined £10. 4 fined £5. 1 fined £3. 2 dismissed.	33 0 0
r selling milk from a vehicle on the public highway, not of the nature, substance and quality demanded by the purchaser.	2	2 fined £5.	10 0 0
r selling milk from a vehicle on the public highway and not having inscribed on such vehicle the name and address of the person selling such milk contrary to the food and Drugs Act, 1899.	1	1 fined £1.	1 0 0
r exposing for sale margarine without abel, contrary to Section 6 of the Margarine Act, 1887.	1	1 fined £5.	5 0 0
r exposing for sale margarine abelled, a butter mixture, contrary o Section 8 of the Butter and Margarine Act, 1907.	1	1 fined £5.	5 0 0
r selling margarine as margarine blended with butter and containing nly 1 per cent of butter.	1	fined £20.	20 0 0
r describing in an advertisement, Margarine by another name, namely, nargarine blended with butter.	1	Withdrawn.	
r wilfully giving a false description of the article sold, to wit, a sample of butter.	1	Withdrawn.	
r selling cream cheese which was ot of the nature, substance and quality of the article demanded.	1	1 fined £5.	5 0 0
r selling preserved cream as cream ithout the statutory label.	3	1 fined £10. 1 fined £5. 1 fined £3.	18 0 0
Carried forward	20		97 0 0

CASES HEARD BEFORE MAGISTRATES, 1923.—*Continued.*

Offence.	No. of Cases.	Decision of Justice.	Total Fi withou Costs.
			£ s.
Brought forward.....	20		97 0
For selling syrup treacle which was not of the nature, substance and quality of the article demanded.	2	Dismissed.	
For selling a bottle of Beef and Malt Wine which was not of the nature, substance and quality of the article demanded by the purchaser.	3	(3 fined £20 (maximum penalty), and £21 cost in one case only.	60 0
For making up a prescription, to wit, a sample of pills which, on analysis, was found not to be of the nature, substance and quality of the article demanded.	1	1 fined £3.	3 0
For shipping a pig from Galatz, Roumania, to Salford, without the necessary license, contrary to the Foreign Animals Order, 1922.	1	Fined 10s.	0 10
For emitting dense black smoke from the chimney of their works.	2	1 fined £1 and an Order to abate made, and 1 fined 5s.	1 5
For failing to comply with an Order to abate nuisances arising from the emission of dense black smoke from the chimney of their works.	2	1 fined £5. ..... 1 fined 10s.	5 10
For failing to comply with a notice under the Salford Corporation Act, 1899, to convert pail closets to water closets.	2	1 fined £1. 1 fined 1s. and £2 2s. costs.	1 1
TOTAL	33		168 6

TABLE G 4.

REGISTER OF WORK DONE—YEAR ENDING DECEMBER 29TH, 1923.

No of Complaints received		4154
Inspections of	Dwelling-houses	14430
	Schools	216
	Factories	25
	Canal Boats	159
	Common Lodging-houses (Day)	473
	,, ,, ,, (Night)	..
	Sub-let ,, ,, (Day)	2790
	,, ,, ,, (Night)	..
	Seamen's Lodging-houses (Day)	530
	,, ,, ,, (Night)	39
	Slaughter-houses	1975
	Dairies and Milk-shops	393
	Shippons	6
	Piggeries	14
	Van Dwellings	89
	Tips	22
	Bakehouses (Day)	599
	,, (Night)	..
	Workshops (Day)	1236
	,, (Night)	69
	Domestic Workshops	66
	Domestic Workshops (Night)	..
	Houses *re* Rents Restriction Act	22
	Premises where food is prepared	121
	Fish and Fruit Stalls	..
	Pork Shops	2
	Butchers' Shops and Stalls	2
	Grocers' Shops	..
	Outworkers' Premises	225
	Ice Cream Shops and Stalls	205
	Re Offensive Trades	31
	Re Shops Act (Day)	120
	,, (Night)	207
	Re Midwives	380
	Re Still Births	107
	Re Infantile Deaths	8
	Re Ophthalmia Neonatorum	227
	Miscellaneous	6256
	Laundries	47
	Urinals —Public	309
	—Private	134
	Stables	133
	Re Infectious Diseases	1966
	Re Cases of Measles	101
	Re Rag Flock Act	..
	Restaurant Kitchens	4
	Theatres, Cinemas, etc. (Day)	42
	,, ,, (Night)	37

Register of Work Done—*Continued.*

Re-inspections		30604
Action taken	Statutory Notices issued	3013
	,, ,, uncomplied with	151
	Informal Notices issued	2287
	,, ,, uncomplied with	160
	Letters written	4900
	Summonses issued	33
Disinfection—Houses Disinfected		1850
House Drains	Repaired	133
	Reconstructed	952
	Trapped	391
	Slopstone Pipes disconnected from	..
	Downspouts disconnected from	..
	Blockages removed	1944
Passage Inlets	Blockages Removed	2248
Water Closets	New, provided	285
	Ventilated	..
	Soil-pipes ventilated	..
	Urinals provided	..
Ash receptacles	New, provided	3773
	Bricked up or demolished	1147
Limewashed	Ice Cream Shops	..
	Lodging-houses	15
	,, Sub-let	95
	,, Seamen's	..
	Bakehouses	213
	Slaughter-houses	..
	Dairies and Milkshops	..
	Workshops	29
	Offensive Trade Premises	..
	Workshops (Domestic)	..
	Outworker's premises	1
	Laundries	4
	Restaurant kitchens	..
	Shippons	..
	Urinals	1
Closure of	Houses unfit for habitation	..
Newly registered	Lodging-houses	..
	,, ,, Sub-let	19
	Slaughter-houses	..
	Workshops	18
	,, (Domestic)	2
	Dairies and Milkshops	87
	Bakehouses	10
	Laundries	..
	Shops under Shops Act	3
	Second-hand Goods Stores	23
	Offensive Trades	..
Accumulations Removed	Manure and Refuse	113
	Stagnant Water	9
Manure receptacles provided		11

REGISTER OF WORK DONE—*Continued.*

Smoke Nuisance	Observations taken	3285
	Notices served	20
	Cautionary Notices served	97
Passages and Yards	Flagged	1
	Repaired	493
	Drained	1
Infected Bedding and Clothing	Stoved	4270
	Destroyed	103
Food	Samples purchased for analysis	1591
Milk	Samples obtained for bacteriological examination	278
Unsound Food	Seizures made	1081
Animals removed from improper situations		..
Overcrowding of dwellings abated		4
Houses repaired by owners, after notice		3572
,, cleansed		19
Canal Boats painted		3
,, defective		2
,, repaired		3

Housing Conditions.

YEAR ENDED 31ST DECEMBER, 1923.

GENERAL STATISTICS.

rea (acres)	5202
opulation (1923)	241600
umber of Inhabited Houses (1923) ..... about	49928
umber of families or separate occupiers (1923)	—
ateable Value	£1341086
m represented by a penny rate	£5171

HOUSING.

nber of new houses erected during the year :—

(a) Total	100
(b) As part of a municipal housing scheme	36

Unfit dwelling-houses.

nspection—

(1) Total number of dwelling-houses inspected for housing defects (under Public Health Acts) 14480

(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 ..... Nil.

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation..... Nil

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation..... 530

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..... 228

3. Action under Statutory Powers.

(A) Proceedings under Section 28 of the Housing, Town Planning, etc., Act, 1919 ..... N

(1) Number of dwelling-houses in respect of which Notices were served requiring repairs ..... Ni

(2) Number of dwelling-houses which were rendered fit :—

(a) By owners ..... Ni

(b) By Local Authority in default of owners ..... Ni

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ..... Ni

(B) Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which Notices were served requiring defects to be remedied 301

(2) Number of dwelling-houses in which defects were remedied :—

(a) By owners..... 28

(b) By Local Authority in default of owners ..... N

(C) Proceedings under Sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

(1) Number of representations made with a view to the making of Closing Orders..... N

(2) Number of dwelling-houses in respect of which Closing Orders were made ..... N

(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit.. N

(4) Number of dwelling-houses in respect of which Demolition Orders were made ..... N

(5) Number of dwelling-houses demolished in pursuance of Demolition Orders ..... N

Local Acts in force

SECTION IIA.

THE PROBLEM OF ATMOSPHERIC POLLUTION.

PREFACE.

THE writer has, for many years, realised how the inhabitants of Salford, and other towns of industrial Lancashire, are labouring under a heavy handicap of gloomy and unhealthy environment.

He ventures to hope that this very limited enquiry into the relative amounts, causes, and character of Salford's Atmospheric Pollution, may be of some possible help in formulating the remedy, which is so ardently desired.

H. D'Osborne

Medical Officer of Health.

Health Office,
Salford.

September, 1924.

The Problem of Atmospheric Pollution.

Mortality from Respiratory Diseases.

During the year 1923 the grim reaper Death claimed 3,262 of Salford's population. Of this total loss, respiratory disease, including lung consumption, accounted for more than one-third, a truly formidable proportion. The actual figures are as follows :—

Deaths from	Bronchitis	389
,, ,,	Pneumonia	358
,, ,,	Phthisis	311
,, ,,	Other Respiratory Disease	33
	Total	1091

Phthisis, or lung consumption, is a disease which has proved itself to a large extent amenable to ordinary public health measures, such as improved housing and ventilation, improved sanitation, relief of overcrowding, and improved standard of living generally. Public health measures and education have largely assisted in effecting a 50 per cent reduction in the Phthisis Death Rate during the last 35 years. Unfortunately, the same marked improvement in mortality figures does not apply in the case of the non-tubercular respiratory diseases—bronchitis and pneumonia—as will be seen from the following table :—

	Average Death Rate during the five years 1884 to 1888.	Average Death Rate during the five years 1919 to 1923.
Phthisis	2·5 per 1,000	1·25 per 1,000
*Bronchitis	3·0 ,,	1·9 ,,
Pneumonia	1·9 ,,	1·5 ,,

*A number of the deaths certified as "Bronchitis" 35 years ago would, with modern knowledge and methods of diagnosis to-day, be classed as "Phthisis."

From this brief statistical survey two very striking facts emerge :—

First of all it is evident that the two non-tubercular respiratory diseases—Bronchitis and Pneumonia—account for approximately one-fourth of the total deaths.

Secondly, the fall in Death Rate from these two diseases during the last 35 years is not commensurate with the improvements that have taken place in general sanitation and the standard of living.

Obviously, here is a problem calling for very serious consideration.

A comparison of the Borough statistics with those of England and Wales as a whole, at once reveals the fact that in Salford, the percentage of deaths from non-tubercular respiratory disease is unduly high.

Respiratory Death Rate per million persons living :—

Year 1923.	
Salford	3092
England and Wales	1867

Atmospheric Pollution and Disease.

The question which naturally arises is "What local conditions are responsible for this undue proportion of respiratory deaths?" The answer which immediately suggests itself is "Atmospheric Pollution." Those of us who at an earlier period of life migrated from the pure atmosphere and clean surroundings of the country to this smoke-laden environment, readily realise the

potentiality of the latter for setting up respiratory irritation and catarrh. Our local medical men are only too familiar with the blackened lungs as seen in the post-mortem room—lungs in which the ramifying air tubes are coated with a layer of soot deposited from the inspired air. The relation between atmospheric pollution and increased respiratory Death Rate, is well illustrated during prolonged periods of winter fog. It is the common experience of medical practitioners to find their bronchitic patients dying off like flies during such periods. Smoke-laden fog may set up respiratory disease in those previously healthy; it often kills off those already suffering from bronchitis.

The accompanying charts are suggestive of a close relation between fog periods and respiratory deaths. The years 1916 and 1917 were chosen, as in each there was a well-marked fog period, and at the same time an absence of Influenza epidemic, which would have complicated the issue.

In the year 1916, the main fog period extended from December 1st to 27th (17 foggy days out of 27), and the peak of respiratory deaths (43) was reached during the week ending December 16th.

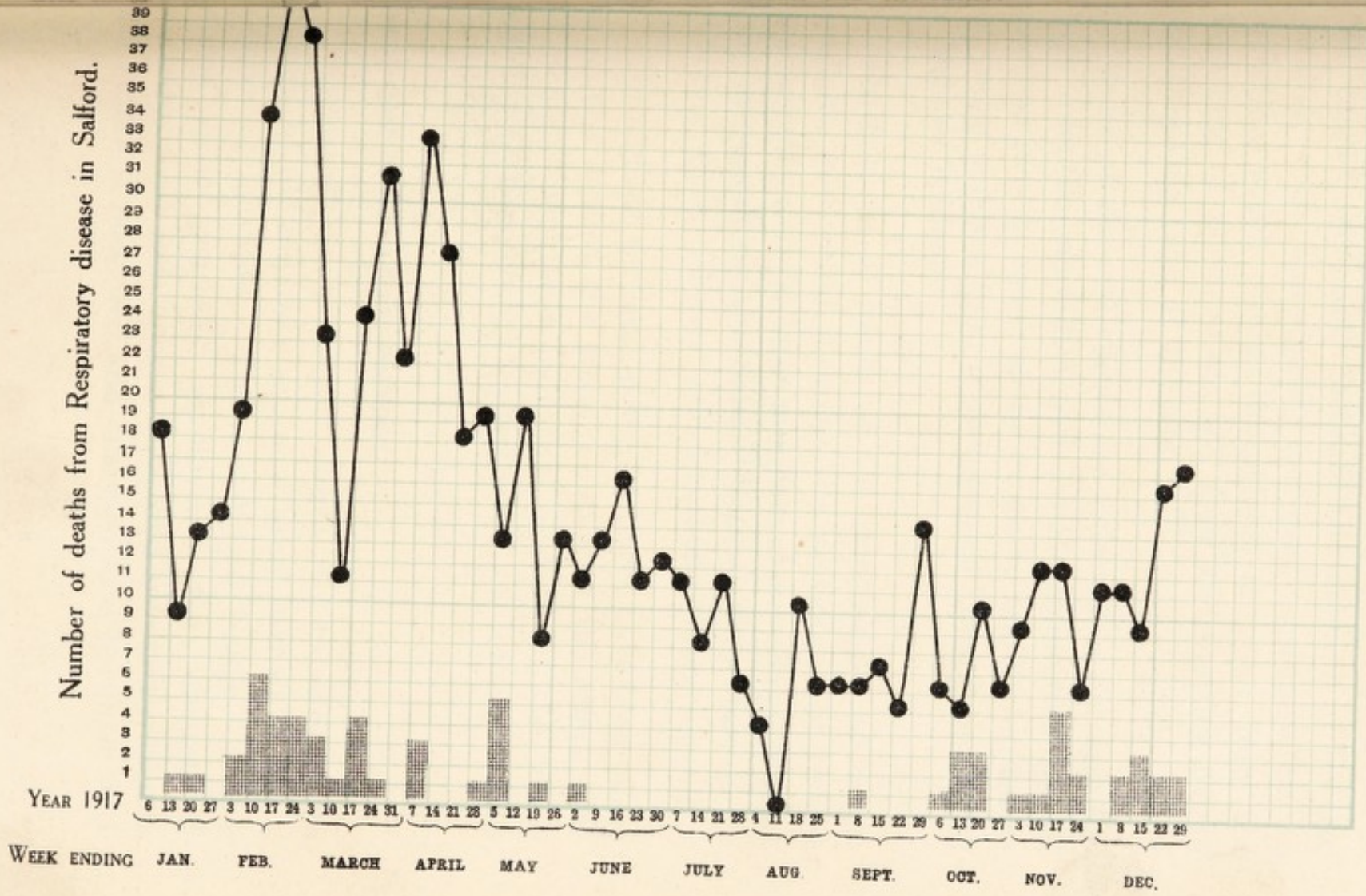
In the following year, 1917, the main fog period occurred early on from February 1st to 27th (18 foggy days out of 27), and the peak of respiratory deaths (41) was reached during the week ending February 17th.

These charts, therefore, fully confirm one's experience as to the effects of smoke fog in patients whose respiratory organs are already damaged, but, of course, they are

Curve showing number of deaths from Respiratory disease for each week of the year 1916.

Shaded columns show number of foggy days in each week of the year 1916.

▦ = One day on which fog prevailed.


Number of deaths from Respiratory disease in Salford.
39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
YEAR 1917
6 13 20 27 3 10 17 24 3 10 17 24 31 7 14 21 28 5 12 19 26 2 9 16 23 30 7 14 21 28 4 11 18 25 1 8 15 22 29 6 13 20 27 3 10 17 24 1 8 15 22 29
WEEK ENDING
JAN. FEB. MARCH APRIL MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

inadequate to demonstrate the vast amount of evil, short of death, which results from our polluted atmosphere. We cannot accurately measure the amount of lowered vitality, with consequent increased susceptibility to infection, which results, throughout the year, from the breathing of poisoned air, and from the shutting out of health-giving rays of the sun.

Some of the evil effects are reflected in our still too high infantile mortality, and in this connection special mention may be made of the excessive number of deaths of young children from Bronchitis and Pneumonia during a Measles epidemic.

Further, as a result of the deprivation of direct sunlight, one would instance the prevalence of rickets and anæmia, and the large numbers of our school children who are found by the School Medical Inspectors to be suffering from delicacy and glandular tuberculosis.

Throughout the land, powerful voices have been raised in protest against the gross pollution of the atmosphere of densely populated industrial areas, and the whole country is awakening to the need of reform in this direction.

easurement of Atmospheric Pollution.

Investigations with the object of measuring the amount of air impurity are now being carried out in a number of localities. The "Standard Gauge" is the means most generally employed; the amount of mpurity which falls upon a measured area in the course of a month is measured and analysed into insoluble and

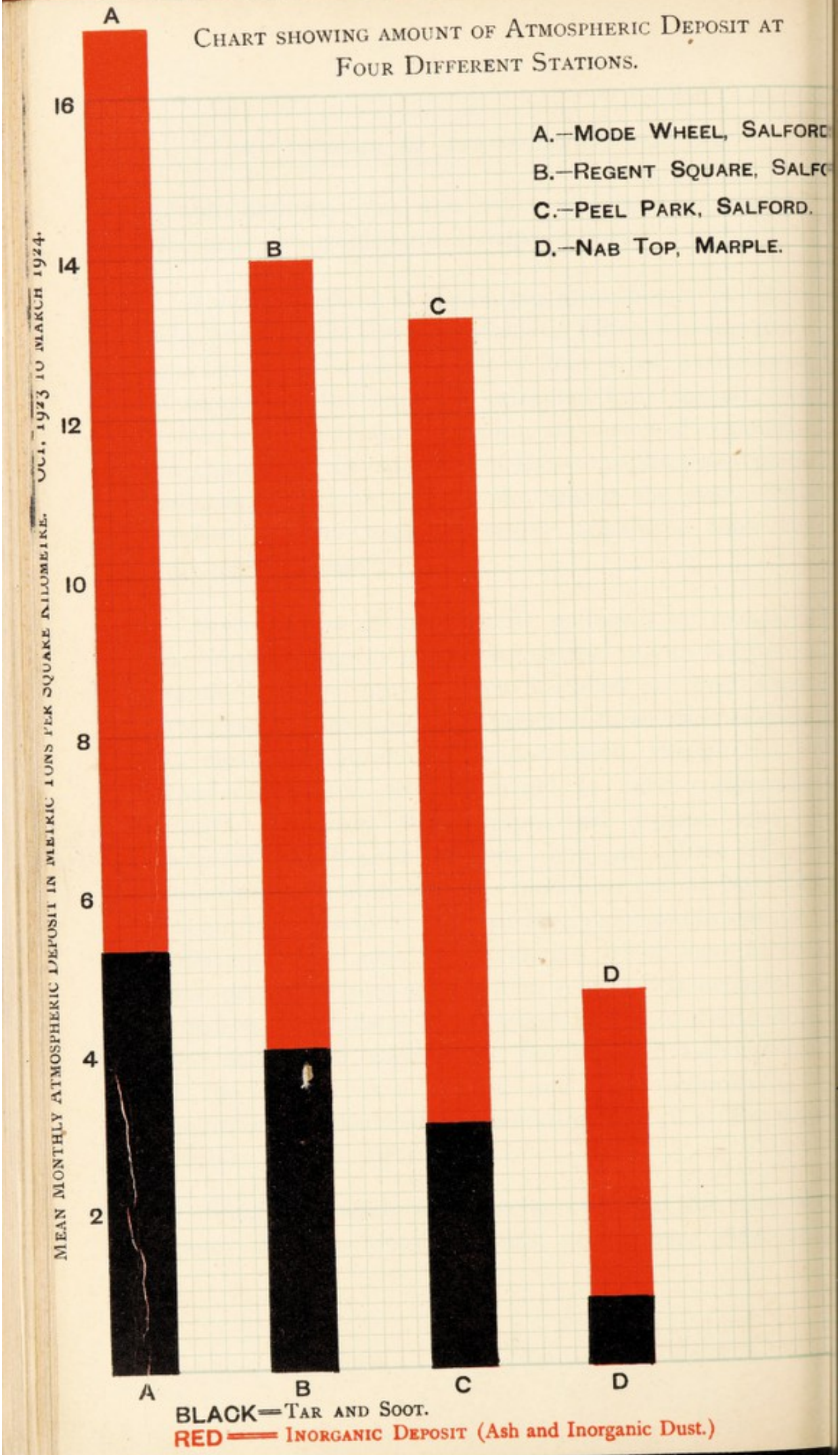
soluble impurity, tar and other carbonaceous matter, and ordinary wind-borne inorganic dust.

Another method of measuring atmospheric pollution is by means of the Owen's Automatic Filter, which isolates near the edge of a circular disc of filter paper, a succession of samples of the impurity extracted from the air, two to four every hour, thus providing the means of examining the changes in the condition of the atmosphere as regards pollution from hour to hour throughout the year. This method requires more expensive apparatus than the "Standard Gauge."

Investigation of atmospheric pollution by means of the deposit gauge is now being carried out in Salford, a standard gauge having been installed in Peel Park. Observations have also been taken at three other stations by means of improvised gauges which, though not of standard pattern, are considered to yield comparable results. Of these three improvised gauges, one is installed in Regent Square, one at Mode Wheel Disinfecting Station, and the remaining one at Nab Top Sanatorium, Marple. Care has been exercised in selecting sufficiently open sites for the gauges, which have further been protected from adventitious pollution in accordance with the Air Ministry's suggestions. The contents of all four gauges are conveyed to the Borough Laboratories at the end of each month, and there submitted to quantitative chemical examination by the Borough Analyst (Mr. G. D. Elsdon).

From the analytical results obtained for the six winter months—October, 1923, to March, 1924—the

Chart showing amount of Atmospheric Deposit at Four Different Stations.



accompanying chart — showing the mean monthly deposit at each of the four stations—has been constructed. The amounts are set forth numerically in Appendix "A."

The four columns in the above chart give a fair indication of the relative amount of atmospheric impurity at the three Salford Stations and at the Marple Sanatorium. The Peel Park gauge showed less deposit than those at Regent Square and Mode Wheel; on the other hand, the total amount of deposit (including ash and inorganic dust) at Peel Park was nearly thrice that at Marple, the tar and soot at Peel Park being about four times that at Marple.

The proximity of a locomotive engine shed to the Mode Wheel Station may account for the excessive deposit there as compared with other Salford stations.

If we were to assume that the amount of atmospheric deposit at Peel Park represented an average for the whole Borough, then a simple calculation would show that "dirt" was being deposited over the whole of Salford at the rate of about 3,000 tons per annum!

Only a limited number of local authorities in England are taking observations by means of the standard gauge. The results obtained from all these areas are published in tabular form in the reports of the "Committee for the Investigation of Atmospheric Pollution," Meteorological Office, Air Ministry. The results set forth in the report for 1923 are herewith summarised and presented in graphic form in the case of each area where observations have been sufficiently complete, extending over the period April, 1922, to March, 1923, these being the latest

results to hand. In the case of Salford, observations were only commenced in 1923; the results are, therefore, charted for the period April, 1923, to March, 1924.

The amounts are stated numerically in Appendix "B."

In order to simplify the graphic representation, the amounts of tar and other insoluble carbonaceous matter have been grouped together as soot (shown black), whilst the soluble and insoluble ash and loss on ignition have been grouped as ash and inorganic dust (shown red). The two together (black and red) represent the "Total Solids" deposited from the atmosphere.

The results as set out in the accompanying chart (page 15) form an interesting study of comparative pollution. In London stations, observations taken by the eight standard gauges show the maximum pollution in Golden Lane and the minimum in Ravenscourt Park, the maximum being comparable in amount with that of Peel Park, Salford.

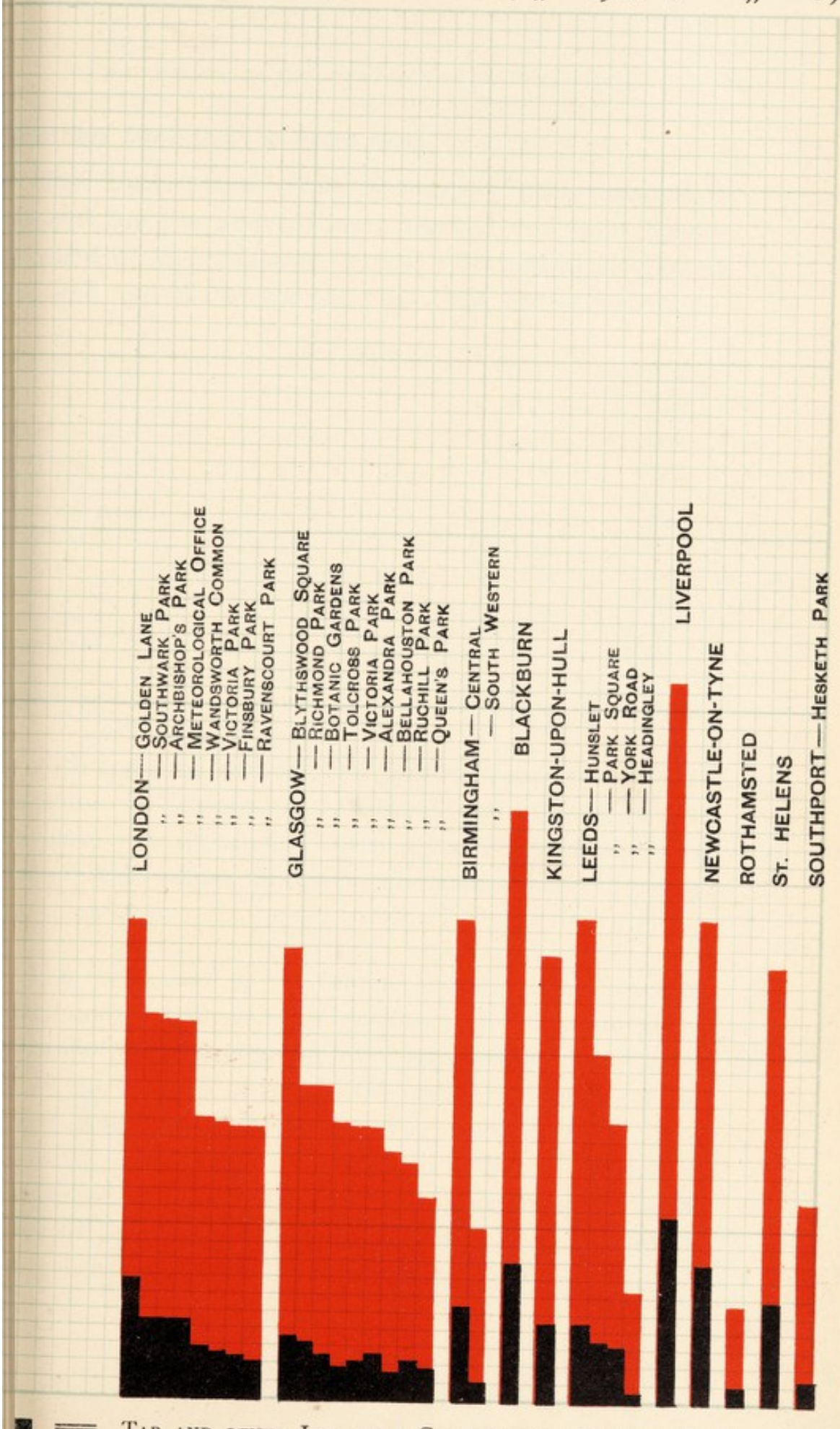
Of Glasgow's nine observation stations, the maximum pollution was obtained in Blythswood Square, and the minimum in Queen's Park. The maximum falls below that of Peel Park, Salford.

Birmingham's two gauges are installed in the central and south-western districts respectively, whilst the pollution in the central district approaches that of Salford, the amount in the south-western district is as low as that of Southport.

Headingley (Leeds) shows less deposit than Southport. Single station observations at Newcastle, Blackburn and Liverpool give high amounts of atmospheric deposit

Monthly Deposit in Salford, April 1923 to March 1924.

" " in Other Towns, " 1922 to " 1923.



espiratory Death Rates in Above Areas.

The Death Rates from respiratory (non-tubercular) iseases for the above towns, worked out from figures upplied in the Registrar-General's Statistical Review of England and Wales, for the year 1923, are as follows :—

YEAR 1923.

Town.	Respiratory Death Rate per Million.
lford ..	3,092
verpool	3,067
eckburn	3,046
uchwark (London)	2,699
. Helens	2,614
uthport	2,306
eds	2,243
wcastle	2,199
rmingham	2,038
ll	1,977
gland and Wales as a whole	1,867

Although, of course, the factors concerned in the usation of respiratory diseases are numerous and mplex, yet the figures here given support the view at mortality from this cause, and atmospheric impurity, e correlated.

Let it be said in this connection that the standard uge does not furnish the absolute index of atmospheric purity : for instance, the fine " impalpable fume " given f by the burning of coal in the ordinary domestic grate, not readily deposited, nor even easily filtered. It is obable that the " automatic filter " previously entioned would give us quite as good, if not a better dex of pollution, and would tell us at what part of the y the impurity was at its highest.

Sulphur in the Atmosphere.

One important figure given by the standard gauge is the amount of sulphur, calculated as sulphate, in the atmosphere. The chief source of sulphur in the air is from the burning of coal. Lancashire coal contains a fairly high proportion of sulphur; when burned it gives off sulphurous acid, a gas which has a markedly irritating effect on the respiratory passages. The well-known irritating effect of the air in a railway tunnel and of the Salford atmosphere during a winter fog is due to the large proportion of sulphur products therein.

Relative Pollution by Factory Furnace and Domestic Fire.

There is a considerable difference of opinion as to whether the factory furnace or the domestic fire is the chief source of atmospheric pollution in thickly populated industrial areas.

The Public Health Act, 1875, empowers local authorities to take proceedings against firms allowing their factory chimneys to send forth black smoke in such quantity as to be a nuisance. Further legislation directed towards abatement of smoke from factory chimneys is contemplated in the immediate future. But there is no existing legislation for dealing with pollution of the air by domestic fires. If the share of the domestic fire in such pollution is a very considerable one, legislation directed against the factory chimney alone will not give us anything like the pure atmosphere we so desire. Inquiry has, therefore, been directed towards the relative part played by (1) industrial furnaces, and (2) domestic fires, in the pollution of the atmosphere in the County Borough of Salford.

The total number of factory chimneys in Salford is 92, of which number 19 are temporarily or permanently out of use.

The total number of occupied dwelling-houses is 9,930.

The proportion of "active" domestic chimneys to factory chimneys is therefore at least 300 to 1.

An attempt has been made to compare the amount of air pollution from these two sources by carrying out an inquiry into the total amount of coal consumed by factory fires on the one hand, and domestic fires on the other hand. Through the courtesy and ready co-operation of the firms within the Borough, it has been possible to obtain a practically complete return of the coal consumed in tons per week in the various industries, and summarised as follows :—

SALFORD INDUSTRIES—COAL CONSUMPTION.

	Fires.	Coal consumed, Tons per Week.
ilers (279)	502	5653
ves and Still Fires (25)	25	
rnaces (47)	47	224
Totals	574	5877

FIRMS BURNING COKE AND BREEZE.

Firm.	Boilers.	Fires.	Fuel.
ford Corporation— as Works	7	14	75 per cent breeze, 25 per cent coke.
irm X	2	2	1½ tons coke.
irm Y	2	2	50 tons breeze.
Totals	11	18	

FIRMS BURNING OTHER FUEL.

Boilers.	Fires	Fuel.
5	6	Waste Wood.
3	3	Oil Fuel.

Total Coal consumption Salford Industries = 5,877 tons per week.

In order to arrive at an estimate of the domestic co consumption for the whole of the Borough, the tot dwelling houses were first separated into the thr following classes :—

(*a*) Houses containing four rooms or less.
(*b*) Houses containing five to six rooms.
(*c*) Houses containing over six rooms.

One hundred houses in each group were selected random, and inquiry made in each case as to the week coal consumption (*a*) in summer and (*b*) in winter. T householders' replies were further checked by inqui from the coal retailers. The replies are summaris hereunder :—

SALFORD DOMESTIC COAL CONSUMPTION.

WEEKLY AVERAGE FOR WINTER AND SUMMER.

Rooms per House.	Number of Houses.	Average Weekly Consumption per House.		Total Weekly Consumption.	
		Summer.	Winter.	Summer.	Winte
4 or less	18291	2·4 cwts.	3·7 cwts.	2195 tons.	3384 to
5 to 6	20658	2·6 ,,	4·16 ,,	2686 ,,	4297
Over 6	10981	4 ,,	6·6 ,,	2196 ,,	3624
Totals ..	49930	....	....	7077 tons.	11305 to

Comparing Factory and Domestic Coal Consumption :

Factory Coal	5,877 tons per week all the year round.
Domestic Coal	7,077 tons per week (Summer).
	11,305 tons per week (Winter).

The amount of coal consumed in domestic grates erefore appears to be considerably in excess of that nsumed in factory fires and furnaces. Moreover, the al is, as a rule, much more completely burned in the ctory fire than in the domestic fire, owing to the much gher temperature reached in the former. In technical nguage, "whilst the combustion efficiency of the erage industrial fire is over 90 per cent, the combustion iciency of the average domestic fire is only about 65 r cent."

In Salford, at any rate, it would appear that the mestic fire plays a considerably greater part in mospheric pollution than does the factory fire. A nsideration, therefore, of the character of pollution ren off by the domestic fire will be of interest.

A striking illustration of the share which domestic oke may take in atmospheric pollution is furnished he accompanying photograph (page 4) of the old town of itby on the east coast of Yorkshire: with the east cliff background, the domestic smoke pall which hangs r the dwelling houses is easily seen.

racter of Pollution from Domestic Fires.

Valuable research bearing on the problem of air lution from domestic fires, has recently been carried under the Manchester Air Pollution Board, and for

notes on the experimental results I am indebted to M Eugene F. Greig, B.Sc., one of the Scientific Investigato who actually carried out the work.

1. The *Scope of the Research* embraced inquiry into :—

   (1) The radiant efficiency of the domestic grate. (The resu of these experiments are put in question since it now realised that all instruments for measuri radiation are selective in their action.)

   (2) The heat efficiency of individual hot water supplies.

   (3) The combustion efficiency of two coal-burning sitti room grates.

   (4) The combustion efficiency of a sitting-room gas fire.

2. The *main results* obtained are as follows :—

   (1) All carbon-containing fuels give off products of *incomp combustion* when burning freely in air : nota carbon monoxide, methane, impalpable carb aceous fume, and in the case of solid fuels, soot a ash combustibles.

   (2) The *design* of the grate and the *size* of the fuel affect combustion efficiency of coal fires : the drau does not appear to affect the efficiency though does affect the rate of combustion. These poi are borne out by the following experimen results :—

Size of Fuel.	Combustion Efficiency of Iron Gate.	Combustion Efficiency of Fire-brick Grat
Coal of about 2 oz.'s per piece	64·6 per cent	79·0 per cent
,, ,, 12 oz.'s ,, ...	79·5 ,,	....
,, ,, 15 oz.'s ,, ...	....	88·4 ,,
,, ,, 37 oz.'s ,, ...	....	78·45 ,,

The firebrick grate, therefore, would appear to be much more efficient t the iron grate, whilst pieces of coal about 1 lb. in weight burn more thorou than smaller, or larger pieces.

3. *Gas Fire.*—Even with the maximum air of combustion, large quantities of unburned products were found in the flue gases of the sitting-room gas fire ; reduction of bunsen air or of gas pressure increased the amounts by 40 per cent.

An interesting comparison of the character and amount of unburned gases, &c., given off respectively by a coal fire and sitting-room gas fire is herewith set forth :—

ANALYSIS OF FLUE GASES FROM (1) A COAL FIRE AND (2) A SITTING-ROOM GAS FIRE, PER 1,000 B.TH.U. AVAILABLE IN FUEL, THE TWO FIRES BEING AT MAXIMUM EFFICIENCY.

Unburned Gases, &c.	Coal Fire.	Gas Fire.
Carbon Dioxide	1·38 cubic feet.	1·03 cubic feet.
Carbon Monoxide	0·04 „	0·10 „
Methane	0·02 „	0·05 „
Unsaturated Hydrocarbons	0·03 „	0·08 „
Soot	43·2 grains.	2·6 grains.

The results of this scientific investigation clearly prove that in the case of the ordinary domestic coal fire, a large proportion of unconsumed fuel in the form of combustible gases and soot passes up the chimney and is into the atmosphere, as much as 35 per cent of the fuel being wasted. In addition to the ordinary soot, which is more or less readily deposited, there is a very finely divided form of carbon known as "Impalpable fume," a substance which gave rise to difficulties in flue gas analysis, as it proved capable of passing through all ordinary filtering materials. This impalpable fume is especially given off from domestic fires, and consisting as it does of very finely-divided carbon, may remain suspended in the atmosphere for prolonged periods ;

it may, indeed, be one of the factors concerned in the excessive respiratory disease in a densely populated area such as ours.

Another striking fact brought into prominence by these experiments is the large amount of exceedingly poisonous gas carbon monoxide which is given off by the ordinary gas fire, the amount being twice or thrice as much as that given off by the coal fire.

The amount of sulphur products given off in the flue gases of the domestic fire was not ascertained in these experiments. Further research in this direction would seem desirable, as sulphurous and sulphuric acids in the air are capable of setting up respiratory disease. The amount given off by the fire will, of course, depend on the amount of sulphide present in the particular coal used. Different coals vary considerably in amount of sulphur content, as the following *analysis shows :—

1.	Sample of raw Yorkshire Coal	3·05 per cent sulphur.
2.	„ „ Lancashire Coal	2·93 „ „
3.	„ „ American Coal	0·96 „ „
4.	„ „ „ „	1·37 „ „
5.	„ „ „ „	0·74 „ „

* Figures supplied by Mr. E. P. Speakman, Leigh, Lancashire.

The proportion of sulphur in Lancashire coal would appear to be high ; moreover, it exists chiefly as sulphide.

The amount of sulphurous acid given off from coal burning in the domestic grate depends on the state of combination of the sulphur ; sulphates remain undecomposed and pass into the ash, whilst sulphides are oxidised to form sulphurous and sulphuric acids.

The reason why coke gives off relatively more sulphurous fumes than coal is that, in the case of the former, all the sulphate has been reduced in the retort to the form of sulphide.

THE REMEDY

Legislation having for its object the restriction of the emission of smoke from factory chimneys is, of course, very necessary, particularly as matters stand at present. There is no legitimate excuse for the pouring out of dense black smoke from chimneys connected with boiler fires; indeed, there should be no need for smoke of any kind if adequate plant were installed, even in the case of factory fires fed with raw coal. Difficulty arises in periods of extra load, when the boiler plant has to be worked beyond its normal capacity. A number of manufacturing firms have solved the problem of smoke emission by replacing old boiler plant with modern equipment provided with smoke preventing devices.

The Salford Health Committee have recently installed at their Infectious Diseases Hospital, Ladywell Sanatorium, a mechanism whereby hot air and superheated steam are passed under the fire bars, and the amount of draught can be regulated at will.

The steam motor wagon is a frequent offender difficult to bring to book under the present state of the law. Since the prosecution of a steam motor-wagon owner in the Salford Police Court on June 2nd, 1920, it has been almost impossible to get a conviction in these cases. In the above case, it was successfully contended by the

Defence that there could be no penalty imposed, as the emission of smoke was due to "temporary or accidental causes," as stated in Locomotive on Highways Act, 1896. In order to effect a successful prosecution, it is now necessary for the Smoke Inspector to follow the steam wagon sending forth black smoke, and to prove that the smoke was being repeatedly emitted during the time the motor wagon was passing through the Borough.

The movement which is afoot to further restrict by legislation the permissible period of smoke emission from factory chimneys is commendable so far as it goes, but it still remains to be said that if all the factory chimneys in Salford and neighbouring areas ceased to smoke, the problem of atmospheric pollution within the Borough would remain unsolved. This inference is obvious on account of the huge volume of domestic smoke arising from the densely-populated area, including Manchester and contiguous towns.

In every working man's home the open fire is the rule. The artizan does not take kindly to the gas fire nor to central heating, and who can blame him? The ordinary man in the street may not always be able to formulate a reason for his likes and dislikes, but after all he is a good judge; he prefers the cheerful blaze of the open fire to the dull comfort of the radiator, and science approves his choice. The sense of comfort attributable to the glowing fire is not merely a psycological effect but proceeds from a physiological basis. In the first place, the open fire is an ideal ventilator; it ensures continual replacement of the air of the room owing to the large volume which is carried up the chimney by

convection. In the second place, it is only of late years that the health value of visible rays, such as those given off from a bright fire, has been realised. Professor Leonard Hill has shown that it is the visible rays of the spectrum which penetrate the skin to the small blood vessels warming the blood and increasing the amount of antitoxic substances therein.

In our country, where the amount of sunshine is so restricted, we cannot afford to further reduce the visible rays impinging on our bodies without some risk of lowered vitality. A people living in darkness, or semi-darkness, is likely to become anæmic and less resistant to infection. The hot water radiator provides neither ventilation nor visible rays. The gas fire is but a poor ventilator compared with the open fire, and, moreover, is a potential danger owing to the high carbon monoxide content of its combustion products. Carbon monoxide is a deadly poison; if present in the atmosphere to the extent of only one part in 10,000, it reduces the oxygenating power of the blood for the time being by one-fifth. In larger amounts, say, 10 parts in 10,000, it can cause death. Amounts of carbon monoxide in the atmosphere too small to be dangerous to life, may set up headache and languor, followed by anæmia. Owing to the fact that this poisonous gas is without colour or smell, its presence in the atmosphere of a room cannot be detected before the evil effects are produced. So also in the case of the gas fire, there is nothing to tell us when down draught is taking place, as the flue gases are invisible. It is true that many people complain of headaches when occupying a room in which a gas fire is burning, and for this reason, after

having given the gas fire a trial, have reverted to the open fire with corresponding improvement in health. It is evident, therefore, that in the case of the gas fire, there is the ever present danger to health owing to the high proportion of unburned carbon monoxide given off in the flue gases. This danger to health is still more accentuated in the case of the flueless gas cooker.

As far back as 1910, Kling and Florentin (Comptes Rendus, Vol. 151) showed that all carbon containing gases burned in the usual domestic appliances (gas rings, etc.) produce noticeable quantities of carbon monoxide: by letting the gas flame impinge on relatively cold surfaces, such as kettles and sauce pan bottoms, the amount of carbon monoxide was increased from four-fold to seven-fold; the mantles of incandescent lights increased the amount of carbon monoxide produced in the combustion three-fold.

These experiments emphasise the importance of adequate ventilation for all fittings used in heating and lighting, particularly by gaseous fuels.

For health reasons, therefore, as well as from personal inclination, it does not appear likely that the present open type of fire will be replaced in the future by gas fires.

What form then should the household fire of the future take? Some form of open fire is desirable in order to afford adequate ventilation and visible rays. Furthermore, this need is accentuated by the fact that the artizan's fire has to act as an incinerator for putrescible organic matter (food refuse) which cannot properly be

placed in the ashbin. The open fire would be the ideal arrangement in this damp and comparatively sunless country of ours, if only the serious atmospheric pollution it causes could be eliminated. The future would, therefore, appear to lie with some form of solid but smokeless fuel. The use of raw coal as at present is indefensible. The problem of converting raw coal into a satisfactory form of carbonised fuel which can be supplied to the public at least as cheaply as the former is one that is at present engaging the attention of scientists. Years of patient research have been devoted to this subject, and most of the difficulties have now been overcome. For instance, some coals swell considerably on heating and so cause jamming in the retort; this difficulty has been overcome in one process by mixing the pulverised coal with a certain proportion of non-caking coal, preheated coal or coke breeze, and then briquetting the mixture by powerful pressure as a preliminary to carbonisation. This particular method has been advocated by a firm of engineers who have for some time been carrying out investigations with the object of providing an ideal carbonised fuel at a cost which makes the process a good commercial proposition. These investigators abandoned the usual practice of leaving sufficient volatile matter in the coke to render it easy to ignite and capable of burning freely in an open grate. On the other hand they proved that, under suitable conditions, coal could be carbonised at the usual high temperatures of gas works and still produce a fuel which was free burning and comparatively easy to ignite. By this method of carbonisation the maximum yield of by-products could be obtained. Further, it was found

that the adoption of steam as a circulating gas for the conducting of heat to the charge in the retort had the effect of releasing a very large proportion of the sulphur content of the carbonised product. The following results are interesting from the point of view of sulphur elimination :—

1. Sulphur contained in	Raw Lancashire Coal	2·93 per cent.
2. „ „	Smokeless Fuel made from (1) without use of steam	2·14 „
3. „ „	Smokeless Fuel made from (1) with use of steam	1·26 „

Further, the investigators referred to say that they have not yet completed all their tests and trials in reference to the question of elimination of sulphur, which is, of course, chiefly contained in the "ankerites" or mineral impurity of coal. They are of opinion that they can even reduce still more the sulphur content of their carbonised fuel.

One has recently had the opportunity of testing this product in the domestic grate at the Health Office. It gave a beautiful glowing fire which burned away without any attention, giving off no smoke whatever, and leaving only a soft powdery ash. If anticipations as to the commercially successful production of such fuel are realised, then, indeed, the dwellers in industrial Lancashire may live to see the dawn of a new smokeless era—so may it be.

CONCLUSIONS.

Atmospheric pollution is associated with excessive mortality from respiratory disease, both tubercular and non-tubercular. Whilst ordinary public health measures

ave had a very considerable effect in reducing, during the ast 40 years, the mortality from tubercular lung disease, he same cannot be said with respect to non-tubercular espiratory disease.

Atmospheric pollution by shutting out the health-iving rays of the sun may cause other (non-respiratory) iseases, such as rickets and anæmia, and may also ender individuals more susceptible to infection.

Legislation directed towards suppression of factory noke, although very necessary, will not alone solve the roblem of atmospheric pollution. In Salford, at any te, the total amount of pollution contributed by omestic fires must be considerably in excess of that ntributed by factory fires. The remedy consists of the ppression of the burning of raw coal in open grates nd the substitution of a smokeless fuel.

Of the two alternatives to the ordinary coal fire, mely, the gas fire and the carbonised coal fire, the tter is much to be preferred on the grounds of health. ne time appears to be at hand when a satisfactory rbonised fuel may be produced economically, so as to available to the public at a price at least as low as that raw coal.

APPENDIX "A."

ATMOSPHERIC IMPURITIES, MEASURED IN METRIC TONS PER SQUARE KILOMETRE DEPOSITED DURING THE WINTER MONTHS—OCTOBER, 1923, TO MARCH, 19 AT THREE SALFORD STATIONS (MODE WHEEL, REGENT SQUARE AND PE PARK), AND AT NAB TOP, MARPLE.

Matter.	Tar.	Other insoluble Carbonaceous Matter.	Soluble Matter Loss on Ignition.	Ash (Soluble and Insoluble).	Tota Solid
MODE WHEEL—					
October, 1923	0·20	3·65	1·37	8·34	13·56
November, 1923 ...	0·60	4·93	1·69	12·17	19·39
December, 1923	0·11	6·05	2·12	14·38	22·66
January, 1924	0·72	7·12	3·18	10·69	21·71
February, 1924	0·20	4·12	0·89	6·62	11·83
March, 1924.....	0·20	4·27	0·95	6·73	12·15
Total 6 Months ..	2·03	30·14	10·20	58·93	101·30
Average 1 Month .	0·34	5·02	1·70	9·82	16·88
REGENT SQUARE—					
October, 1923	0·25	4·24	2·27	7·33	14·09
November, 1923	0·22	3·77	2·31	7·99	14·29
January, 1924	0·00	2·28	3·03	9·59	14·90
February, 1924	0·25	4·30	0·94	7·07	12·56
March, 1924.....	0·17	4·80	0·64	8·49	14·10
Total 5 Months ...	0·89	19·39	9·19	40·47	69·94
Average 1 Month .	0·18	3·88	1·84	8·09	13·99
PEEL PARK—					
October, 1923	0·37	3·54	3·16	8·90	15·97
November, 1923 ...	0·21	3·45	2·13	8·06	13·85
December, 1923	0·24	2·91	3·32	7·63	14·10
January, 1924	0·19	1·08	3·15	9·58	14·00
February, 1924	0·20	3·01	0·89	5·89	9·99
March, 1924.....	0·24	3·08	1·10	7·07	11·49
Total 6 Months ...	1·45	17·07	13·75	47·13	79·40
Average 1 Month .	0·24	2·84	2·29	7·86	13·23
NAB TOP—					
October, 1923	0·08	1·03	1·32	1·30	3·73
November, 1923 ...	0·09	0·92	1·47	3·37	5·85
December, 1923	0·00	0·76	1·91	1·85	4·52
January, 1924	0·06	0·53	1·91	1·82	4·32
February, 1924	0·15	0·94	0·53	3·65	5·27
March, 1924.....	0·06	0·44	0·67	3·59	4·76
Total 6 Months ...	0·44	4·62	7·81	15·58	28·45
Average 1 Month .	0·07	0·77	1·30	2·60	4·74

APPENDIX "B."

EAN MONTHLY DEPOSIT IN METRIC TONS PER SQUARE KILOMETRE DURING YEAR APRIL, 1922—MARCH, 1923.

	Soot and Tar.	Ash and Inorganic Dust.	Total Solids.
ONDON—			
Meteorological Office	2·33	8·51	10·84
Archbishop's Park	2·35	8·60	10·95
Finsbury Park	1·43	6·43	7·86
Ravenscourt Park	1·20	6·66	7·86
Southwark Park	2·38	8·74	11·12
Wandsworth Common	1·61	6·55	8·16
Victoria Park	1·47	6·52	7·99
Golden Lane	3·59	10·19	13·78
LASGOW—			
Alexandra Park	1·40	6·39	7·79
Bellahouston Park	0·88	6·28	7·16
Blythswood Square	1·92	11·12	13·04
Botanic Gardens	1·41	7·61	9·02
Queen's Park	0 95	4·87	5·82
Richmond Park	1·72	7·29	9·01
Ruchill Park	1·25	5·57	6·82
Toleross Park	1·10	6·87	7·97
Victoria Park	1·20	6·64	7·84
IRMINGHAM—			
Central	2·82	11·14	13·96
South Western	0·68	4·39	5·07
LACKBURN	4·08	13·02	17·10
NGSTON-UPON-HULL	2·36	10·50	12·86
EDS—			
Headingley	0·42	2·77	3·19
Hunslet	2·39	11·60	13·99
Park Square	1·84	8·32	10·16
York Road	1·69	6·41	8·10
VERPOOL	5·48	15·34	20·82
WCASTLE-ON-TYNE	4·16	9·83	13·99
THAMSTED	0·56	2·31	2·87
HELENS	3·05	9·56	12·61
THPORT—			
Hesketh Park	0·75	5·14	5·89
LFORD—			
Peel Park—(Year 1923–24)	3·47	9·91	13·38

SECTION III.

INFECTIOUS DISEASES.

EVALENCE OF AND CONTROL OVER INFECTIOUS DISEASE.

The prevalence of notifiable infectious disease shows decrease for 1923, the total number of notified cases ing 689 less than last year.

This decrease is largely due to the fall in the number cases of Scarlet Fever notified.

In the case of Diphtheria, no doubt the increasing d more prompt use of antitoxin has played an important rt.

As regards Scarlet Fever, there is no doubt that the sent day type is much milder than that of former years.

Details of the number of cases of infectious disease ified are given in Tables 1 and 2 (pages 80, 81 and 82).

The usual methods, described in previous reports, for the prevention of the spread of these diseases were continued, special attention being again given to measles. Although this disease was not compulsorily notifiable cases were notified to this department voluntarily by some Medical Practitioners and by parents and schoo teachers. Each case was visited by a Lady Inspecto and, where necessary, the services of the Nurses from the District Nursing Association were obtained, th Health Committee paying the Association for thes services. School teachers are encouraged to report, i addition, cases of non-notifiable disease, which are a once investigated by the School Medical Officers.

Supplies of Diphtheria Antitoxin are kept by th department and are available, free of charge, immediatel to any Medical Practitioner who applies for the same.

There were 86 cases of Influenza-Pneumonia notifie but there has been no recrudescence of Influenza i epidemic form, 98 deaths occurring from this disease.

No cases of Trench Fever were notified.

Four cases of Malaria were notified, of which o died ; all the cases were found to have contracted t disease abroad.

The Salford Corporation have an Infectious Diseas Hospital (Ladywell Sanatorium) where cases which ca not be isolated at home are removed for treatme (including advanced cases of Tuberculosis in male

e Sanitary Staff of the Department carry out dis-
ection of the premises where cases of infectious disease
ve occurred.

The Corporation have a Special Disinfecting Station at
de Wheel, where a considerable number of verminous
sons, principally children, are dealt with every year.

TABLE I. 1.

Cases of Infectious Disease notified during the Year 1923.

Notifiable Diseases.	Cases notified in Whole District.								Total Cases notified in each Ward.																Cases removed to Hospital.
	At All Ages.	At Ages—Years.							Albert Park.	Charlestown.	Clarement.	Crescent.	Docks.	Kersal.	Langworthy.	Mandley Park	Ordsall Park.	Regent.	St. Matthias'.	St. Paul's.	St. Thomas'.	Seedley.	Trinity.	Weaste.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.																	
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous croup)	304	4	87	152	41	18	1	1	17	13	3	30	9	18	21	14	43	31	32	10	19	9	24	11	289
Erysipelas	98	..	4	6	19	25	29	15	8	3	3	14	8	1	5	4	9	6	9	8	4	4	2	10	44
Scarlet fever	868	6	211	539	83	29	..	..	73	54	28	80	40	16	42	41	111	86	51	85	33	23	68	37	756
Typhus fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever	27	..	..	7	7	12	1	..	1	..	3	2	2	1	..	1	1	1	6	3	..	2	1	3	25
Continued fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal fever	22	..	..	..	5	16	1	..	1	1	..	5	2	2	..	2	2	3	1	..	1	..	1	1	21
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis	5	..	2	3	..	..	..	..	..	1	..	2	..	..	..	..	..	..	2	..	..	..	..	..	5
Acute-Poliomyelitis	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	1
Anthrax	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glanders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum	57	57	..	..	..	..	..	..	5	2	1	4	4	1	..	11	6	6	2	5	2	1	5	2	2
Pulmonary tuberculosis	547	..	6	65	133	205	126	12	34	22	11	64	29	14	30	40	42	42	43	44	41	18	49	24	562
Other forms of tuberculosis	125	7	28	53	18	14	5	..	7	4	2	26	4	5	9	6	10	10	4	10	7	3	13	5	8
Trench Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	1	..	..	..
Malaria	4	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Dysentery	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Primary Pneu-									1	3	6	7	2	2	19	4	10	5	1	19	25	5	5	..	..

SHOWING THE NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED TO THE HEALTH DEPARTMENT DURING THE YEARS 1883 TO 1923.

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Fever.					Erysipelas.	Cholera.	Plague.	Anthrax.	Glanders.	Cerebro-Spinal Meningitis.	Acute Poliomyelitis.	Ophthalmia Neonatorum.	Measles.	Tuberculosis.		Total.
				Enteric.	Typhus.	Continued.	Relapsing.	Puerperal.										Pulmonary.	Non-Pulmonary.	
1883	6	805	81	293	14	..	..	21	..	..	..	..	..	..	..	..	..	..	..	1220
1884	5	1154	99	422	35	..	..	14	..	..	..	..	..	..	..	..	..	..	..	1729
1885	11	632	54	205	32	..	..	15	..	..	..	..	..	..	..	..	..	..	..	949
1886	..	1536	41	288	5	..	..	12	..	..	..	..	..	..	..	..	..	..	..	1882
1887	4	1427	83	368	7	..	..	11	..	..	..	..	..	..	..	..	..	..	..	1900
Average 5 years ..	**5**	**1111**	**72**	**315**	**19**	..	..	**15**	..	..	..	..	..	..	..	..	..	..	..	**1537**
1888	52	1128	175	572	31	..	..	26	..	..	..	..	..	..	..	..	..	..	..	1984
1889	..	1283	691	485	3	..	..	14	..	..	..	..	..	..	..	..	..	..	..	2476
1890	..	985	704	383	6	4	..	22	76	..	..	..	..	..	..	..	..	..	..	2180
1891	..	483	231	377	1	6	..	13	53	..	..	..	..	..	..	..	..	..	..	1164
1892	7	865	231	347	5	5	..	26	86	..	..	..	..	..	..	..	..	..	..	1572
Average 5 years ..	**12**	**948**	**406**	**433**	**9**	**3**	..	**20**	**43**	..	..	..	..	..	..	..	..	..	..	**1874**
1893	168	865	261	563	5	12	..	30	147	..	..	..	..	..	..	..	..	..	..	2051
1894	35	1043	242	316	1	14	..	21	130	..	..	..	..	..	..	..	..	..	..	1802
1895	4	1167	194	382	..	11	..	19	111	..	..	..	..	..	..	..	..	..	..	1888
1896	2	1579	158	291	7	12	..	24	114	..	..	..	..	..	..	..	..	..	..	2187
1897	..	714	103	291	..	14	..	13	121	..	..	..	..	..	..	..	..	..	..	1256
Average 5 years ..	**42**	**1074**	**192**	**369**	**3**	**13**	..	**21**	**125**	..	..	..	..	..	..	..	..	..	..	**1836**

TABLE I. 2.—*continued.*

Year.	Small Pox.	Scarlet Fever.	Diphtheria.	Fever. Enteric.	Fever. Typhus.	Fever. Con-tinued.	Fever. Puerperal.	Erysipelas.	Anthrax.	Cerebro-Spinal Meningitis.	Acute Poliomyelitis.	Ophthalmia Neonatarum.	* Measles.	Tuberculosis. Pul-monary.	Tuberculosis. Non-Pul-monary.	Trench Fever.	Malaria.	Dysentery.	Acute Primary Pneumonia	Influenza-Pneumonia.	Encephalitis Lethargica.	Total.
1898	..	659	97	367	16	14	31	146	..	..	..	..	..	..	..	..	..	..	..	..	..	1330
1899	..	723	184	273	3	20	26	153	..	..	..	..	..	..	..	..	..	..	..	..	..	1382
1900	6	1317	309	335	2	8	21	179	..	..	..	..	..	..	..	..	..	..	..	..	..	2177
1901	..	1320	420	317	1	8	33	230	..	..	..	..	..	..	..	..	..	..	..	..	..	2329
1902	23	780	292	207	43	6	16	164	..	..	..	..	..	..	..	..	..	..	..	..	..	1531
Average 5 years	**6**	**960**	**260**	**300**	**13**	**11**	**25**	**174**	..	..	..	..	..	..	..	..	..	..	..	..	..	**1750**
1903	175	737	335	178	..	1	13	161	..	..	..	..	..	..	..	..	..	..	..	..	..	1600
1904	57	1043	422	202	10	7	21	168	..	..	..	..	..	..	..	..	..	..	..	..	..	1930
1905	3	960	363	142	..	7	26	176	..	..	..	..	..	..	..	..	..	..	..	..	..	1677
1906	..	904	432	225	..	1	21	142	..	..	..	..	..	..	..	..	..	..	..	..	..	1725
1907	8	1044	384	92	..	5	23	136	..	..	..	..	..	356	..	..	..	..	..	..	..	2048
Average 5 years	**49**	**938**	**387**	**168**	**2**	**4**	**21**	**157**	..	..	..	..	..	..	..	..	..	..	..	..	..	**1796**
1908	..	1341	629	181	..	7	27	127	..	..	..	..	..	563	..	..	..	..	..	..	..	2875
1909	..	1577	562	138	..	2	26	182	..	..	..	..	..	581	..	..	..	..	..	..	..	3068
1910	..	909	333	113	..	..	24	129	..	..	..	..	..	651	..	..	..	..	..	..	..	2159
1911	..	911	375	108	..	1	24	217	..	..	..	..	..	714	..	..	..	..	..	..	..	2350
1912	..	541	242	76	..	7	26	181	..	1	29	..	..	1073	..	..	..	..	..	..	..	2206
Average 5 years	..	**1056**	**428**	**123**	..	**3**	**25**	**167**	..	..	..	..	..	**716**	..	..	..	..	..	..	..	**2532**
1913	4	1224	336	113	..	1	17	203	3	4	2	..	..	1206	503	..	..	..	..	..	..	3616
1914	1	2336	352	63	..	..	20	248	1	3	5	80	..	1126	236	..	..	..	..	..	..	4471
1915	1	997	236	84	..	..	23	172	..	9	7	97	..	816	195	..	..	..	..	..	..	2637
1916	8	442	204	47	..	..	13	124	..	9	1	60	2065	745	241	..	..	..	..	..	..	3959
1917	..	200	183	40	..	..	2	91	..	2	2	43	3100	575	213	..	..	..	..	..	..	4401
Average 5 years	**3**	**1040**	**252**	**69**	..	**1**	**15**	**167**	**1**	**5**	**3**	**70**	**2582**	**893**	**278**	..	..	..	..	..	..	**3817**
1918	..	289	148	42	..	..	17	92	..	2	2	53	766	556	143	..	..	..	..	..	..	2110
1919	4	663	211	20	..	..	32	131	..	6	3	85	2689	583	107	2	117	56	..	365	4	5078
1920	1	1124	334	49	..	1	40	135	..	10	1	116	..	574	120	..	42	8	..	230	6	2791
1921	..	1746	313	41	..	2	19	146	..	9	..	81	..	553	102	..	11	1	..	394	7	3425
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	72	..	510	101	..	6	..	..	426	1	2957

TABLE SHOWING THE BACTERIOLOGICAL EXAMINATION CARRIED OUT AT THE UNIVERSITY LABORATORY.

Diphtheria.		Typhoid Fever.		Human Tuberculosis Sputum.		Venereal Diseases.					
						Wasserman Reaction.		Spirochoetal.		Gonococcus.	
otal.	+	Total.	+	Total.	+	Total.	+	Total	+	Total.	+
11	259	92	9	25	7	968	224	..	..	10	2

Other Investigations :—

14 samples of Milk (bacterial count and coli).

2 samples of Cerebro Spinal Fluid.

2 samples of Urine and Fæces for Typhoid.

4 Diptheria Swabs for virulence.

Total number of specimens, 2328.

LADYWELL SANATORIUM.

Medical Superintendent's Report for the Year ende December 31st, 1923.

LADYWELL SANATORIUM,

Gentlemen,

I have the honour to lay before you the record of the work done in the Ladywell Sanatorium during the year ended December 31st, 1923.

During the year under consideration 1,790 cases came under treatment, as compared with 2,232 in 1922, and with 1,825·8 the average of the number treated in the five years ended December 31st, 1922. The cases treated were, 1,093 of scarlet fever; measles, 1; enteric fever, 21; diphtheria, 229; erysipelas, 32; puerperal fever, 21; tuberculosis (advanced), 214; and "other diseases," 179. Three hundred and ten (310) of the cases treated were from out-districts, as compared with 322 in 1922.

One thousand five hundred and ninety-seven cases were admitted as compared with 1,984 in 1922, and with 1,684·1 the average of the numbers admitted in the five years ended December 31st, 1922. The cases admitted were: Scarlet fever, 982; measles, 1; enteric fever, 19; diphtheria, 202; erysipelas, 31; puerperal fever, 20; tuberculosis (advanced), 171, and "other diseases," 17.

Two hundred and seventy-six of the cases admitted were from out-districts, as compared with 270 in 1922.

One thousand five hundred and thirty-five cases were discharged, namely: Scarlet fever, 1,005; measles, 1; enteric fever, 13; diphtheria, 187; erysipelas, 26; puerperal fever, 16; tuberculosis (advanced), 119; and "other diseases," 168.

One hundred and sixteen cases proved fatal, namely: 0 from scarlet fever, 6 from enteric fever, 27 from diphtheria, 5 from erysipelas, 4 from puerperal fever, 7 from tuberculosis (advanced), and 7 from "other diseases."

There were remaining in hospital on December 31st, 1923, 139 cases, as compared with 193 on the corresponding date in 1922, and with 170·2 the average of the numbers remaining in hospital on the corresponding date in the five years ended December 31st, 1922. The cases remaining were: 68 of scarlet fever, 2 of enteric fever, 6 of diphtheria, 1 of erysipelas, 1 of puerperal fever, 3 of tuberculosis (advanced), and 4 of "other diseases."

Twenty-five of the cases remaining were from out-districts, as compared with 28 on the corresponding date in 1922.

I append a tabulation of the cases which have been classified in the list of admissions under the head of "other diseases."

The daily average number of patients in hospital in 1923 was 157·0, as compared with 198.5 in the year ended 1922, and with 147·8 the daily average of the numbers in the five years ended December, 1922.

In the Bacteriological Laboratory 1,042 examinations of pathological products have been made, including swabs from throat, nose, mouth, ear, uterus and cerebro spinal fluid from cases of meningitis.

Appended are the usual statistical tables.

TABULATION OF CASES WHICH HAVE BEEN CLASSIFIED AS "OTHER DISEASES."

Abortion	3	Pharyngitis	18
Asthenia	1	Pneumonia	2
Bronchitis	2	Peritonitis Tubercular	1
Bruise after fall	1	Pain over Appendix	1
Cellulitis	1	Rheumatism	7
Cerebro Spinal Fever	5	Rhinorrhœa	1
Constipation	2	Rash on Face	1
Debility	1	Rash following Food Poisoning	1
Diarrhœa	1	Septic Hand	2
Eczema	1	Septic Finger	1
Encephalitis Lethargica	2	Sprained Ankle	1
Food Poisoning	1	Strained Back	1
Glands after S.F.	1	Swollen Arm	1
Influenza	1	Throat, Simple Sore	11
Injured Palate	1	Tonsillitis	81
Metrorrhagia	1	Varicella	5
Nephritis	1		
Nil	10	Total	171

TABLE I.

STATEMENT OF THE NUMBER OF PATIENTS UNDER TREATMENT IN LADYWELL SANATORIUM IN 1923.

	Males.		Females.		
	Under 5 years	Over 5 years	Under 5 years	Over 5 years	Total
I.—PATIENTS REMAINING IN HOSPITAL ON DECEMBER 31st, 1922, AFFECTED WITH—					
Scarlet Fever	12	35	13	51	111
Measles	..	..	..	..	..
Enteric Fever	..	2	..	..	2
Diphtheria	5	7	4	11	27
Erysipelas	..	..	1	..	1
Puerperal Fever	..	..	..	1	1
Tuberculosis (Advanced)	..	43	..	..	43
Other Diseases	..	3	1	4	8
Total	17	90	19	67	193
II.—ADMITTED DURING THE YEAR ENDED DECEMBER 31st, 1923, AFFECTED WITH—					
Scarlet Fever	121	340	112	409	982
Measles	..	..	1	..	1
Enteric Fever	..	8	..	11	19
Diphtheria	38	53	28	83	202
Erysipelas	..	10	2	19	31
Puerperal Fever	..	..	..	20	20
Tuberculosis (Advanced)	..	116	..	55	171
Other Diseases	17	44	8	102	171
Total	176	571	151	699	1597
Total under treatment in 1923	193	661	170	766	1790
III.—OF THE ABOVE THERE WERE DISCHARGED RECOVERED FROM—					
Scarlet Fever	115	348	109	433	1005
Measles	..	..	1	..	1
Enteric Fever	..	5	..	8	13
Diphtheria	30	56	26	75	187
Erysipelas	..	8	3	15	26
Puerperal Fever	..	..	..	16	16
Tuberculosis (Advanced)	..	96	..	23	119
Other Diseases	16	41	9	102	168
Total	161	554	148	672	1535

TABLE I.—*Continued.*

STATEMENT OF NUMBER OF PATIENTS.—*Continued.*

	Males.		Females.		
	Under 5 years	Over 5 years	Under 5 years	Over 5 years	Totals
—DIED FROM—					
arlet Fever	4	3	9	4	20
easles	..	..	..	..	..
nteric Fever	..	3	..	3	6
iphtheria	11	3	4	9	27
rysipelas	..	2	..	3	5
uerperal Fever	..	..	..	4	4
uberculosis (Advanced)	..	39	..	8	47
ther Diseases	1	4	..	2	7
Total	16	54	13	33	116
-REMAINING IN HOSPITAL ON DECEMBER 31st, 1923, AFFECTED WITH—					
arlet Fever	14	24	7	23	68
easles	..	..	..	..	..
nteric Fever	..	2	..	..	2
phtheria	2	1	2	10	15
ysipelas	..	..	..	1	1
erperal Fever	..	..	..	1	1
uberculosis (Advanced)	..	24	..	24	48
her Diseases	..	2	..	2	4
Total	16	53	9	61	139
l under treatment in 1923	193	661	170	766	1790

TABLE II.

MONTHLY STATEMENT OF PATIENTS FOR THE YEAR ENDED DECEMBE 31st, 1923; TOGETHER WITH A COMPARISON WITH THE YEAR 192 AND WITH THE MEAN OF THE FIVE (5) AND FORTY (40) YEARS ENDI DECEMBER 31st, 1922.

Month.	Admissions, 1923.	Admissions, 1922.	Mean of Admissions, 5 years, 1918-22.	Mean of Admissions, 40 years, 1883-1922.	Daily Average No. of Patients in Hospital, 1923.	Daily Average No. of Patients in Hospital, 1922.	Mean of Daily Average No. of Patients in Hospital, 5 yrs., 1918-22.	Mean of Daily Average No. of Patients in
January	174	212	145·0	108·9	196·0	226·1	186·3	13
February	172	181	127·2	87·2	188·9	229·2	153·3	12
March	162	182	127·8	92·5	192·0	226·5	147·7	15
April	103	127	111·6	93·5	162·6	186·3	132·7	11
May	113	165	117·6	93·6	132·2	179·9	127·0	11
June	98	105	108·8	94·0	121·8	153·3	120·1	10
July	137	128	123·8	93·7	126·5	149·9	125·0	11
August	120	146	113·4	112·1	137·7	143·9	124·1	11
September	123	173	151·0	138·7	156·1	159·6	142·6	13
October	175	193	193·0	144·7	176·9	210·7	184·5	15
November.....	134	207	191·6	134·5	177·0	206·9	192·6	17
December	86	165	173·8	121·0	151·2	202·1	177·5	1
Totals	1597	1984	..	..	..	..	..	
M'thly Av'ges.	133·1	165·3	165·4	109·3	159·9	189·5	151·1	13

TABLE III.

OWING THE NUMBER OF ADMISSIONS OF THE PRINCIPAL INFECTIOUS DISEASES FOR THE YEAR ENDED DECEMBER 31ST, 1923; ALSO A COMPARISON WITH THE YEAR 1922, AND WITH THE MEAN OF THE FIVE (5) AND FORTY (40) YEARS ENDED DECEMBER 31ST, 1922.

Month.	Scarlet Fever.	Measles.	Enteric Fever.	Typhus Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Small-pox.	Advanced Tuberculosis.	Other Diseases.	Totals.
nuary	108	..	..	..	35	2	1	..	17	11	174
bruary	105	1	..	..	30	1	2	..	16	17	172
rch	96	..	5	..	34	2	3	..	9	13	162
ril	70	..	2	..	11	1	..	..	8	11	103
y	75	..	2	..	5	5	1	..	6	19	113
ne	67	..	..	..	7	3	2	..	5	14	98
y	77	..	1	..	19	3	..	..	22	15	137
gust	60	..	3	..	13	3	3	..	21	17	120
ptember ..	83	..	2	..	10	1	1	..	7	19	123
tober	109	..	1	..	13	6	4	..	24	18	175
vember ...	85	..	2	..	11	1	2	..	23	10	134
cember....	47	..	1	..	14	3	1	..	13	7	86
Totals	982	1	19	..	202	31	20	..	171	171	1597
tals 1922 ..	1283	18	22	..	203	57	22	..	171	208	1984
crease 1923	..	..	..	..	..	..	..	..	..	..	..
crease 1923	301	17	3	..	1	26	2	..	..	37	387
an of 5years 1918 to 1922	1079·4	8·4	31·0	..	195·4	39·2	21·4	..	140·0	151·8	1684·2
an of 40 ars— 1883 to 1922	800·5	13·0	133·0	5·0	171·8	25·4	9·2	14·8	13·3	97·5	1307·8

TABLE IV.

ANNUAL STATEMENT.

Disease.	No. of Cases Treated.	No. of Cases Admitted.	No. of Cases Discharged	No. of Deaths.	No. of Cases Remainin
Scarlet Fever	1093	982	1005	20	68
Measles	1	1	1	..	..
Enteric Fever	21	19	13	6	2
Typhus Fever	..	..	..	..	..
Diphtheria	229	202	187	27	15
Erysipelas	32	31	26	5	1
Puerperal Fever	21	20	16	4	1
Advanced Tuberculosis	214	171	119	47	48
Small-pox	..	..	..	..	..
Other Diseases	179	171	168	7	4
Total	*1790	†1597	1535	116	‡139
Corresponding date 1922.	2232	1984	1907	132	193
Average five years	1825·8	1684·6	1540·8	114·8	170·2

December 31st, 1924.

	From "Out-Districts."	From "Out-Districts."	From "Out-Districts
1923	*310	†276	‡25
1922	*322	†270	‡28

VENEREAL DISEASES.

Salford Royal Hospital.

	Syphilis.	Soft Chancre.	Gonorrhœa.
Salford Cases treated	245	.. .. ..	268
Out District Cases treated.....	104	.. .. ..	162
Total Cases treated	349	.. .. ..	430
Total Attendances	4595	.. .. ..	3640
Salford Cases treated in Outside Institutions.....	162	28	210

Staff of Salford Royal Hospital (Venereal Disease Section).

Dr. R. Gibson.

Mr. J. D. Macalpine.

Clinical Assistants—

Dr. J. Ghosh.

Dr. W. Elwood.

Pathologist—

Dr. C. E. Jenkins.

The Clinics held are as follows :—

Skin Department—

Monday, 12 noon .. Men, Women and Children.
Wednesday, 6 p.m. .. Women and Children.
Wednesday, 7 p.m. Men.

Genito-Urinary Clinic—

Tuesday, 12 noon.

Friday, 6 p.m.

1. Fifteen Medical Practitioners in the Borough ar qualified to receive Salvarsan substitutes.

2 Novarsenobillon has been supplied to three Salfor Practitioners as follows :—

·15	2 doses.
·3	2 doses.
·45	2 doses.
·6	6 doses.
·75	8 doses.
·9	6 doses.

Novarsenobillon has been supplied to three Ma chester Practitioners for Salford patients as follows :—

·45	12 doses.
·6	112 doses.

Of the 150 doses supplied 120 have been supplied the Medical Officer for His Majesty's Prison, Strangeway Manchester.

Thirty-eight Tests were made for the Wasserma reaction for Salford Medical Practitioners.

Six Tests were made for the Wasserman reacti for an outside Medical Practitioner.

Seven Specimens were sent for Microscopical examin tion by Salford Medical Practitioners.

It has not been found necessary to take any acti under the Venereal Diseases Act, 1917.

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than Venereal.		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of persons who, on the 1st January, 1921, were under treatment or observation for...	113	97	..	..	127	20	105	100	345	217
2. Number of persons dealt with during the year at or in connection with the Out-Patient Clinic for the first time and found to be suffering from :—										
Syphilis only	100	39	..	..	..	..	..	..	100	39
Soft Chancre only	..	..	..	..	..	..	..	..	..	..
Gonorrhœa only	..	..	..	..	266	17	..	..	266	17
Syphilis and Soft Chancre	..	..	..	..	..	..	..	..	..	..
Syphilis and Gonorrhœa	..	..	..	..	..	..	..	..	..	..
Gonorrhœa and Soft Chancre ...	..	..	..	..	..	..	..	..	..	..
Syphilis, Soft Chancre, and Gonorrhœa	..	..	..	..	..	..	..	..	..	..
Conditions other than Venereal ...	..	..	..	..	..	..	325	290	325	290
Total. Item 2	100	39	..	..	266	17	325	290	691	346
Total. Items 1 and 2	213	136	..	..	393	37	430	390	1026	543
3. Number of persons who ceased to attend the Out-Patient Clinic :—										
(*a*) Before completing a course of treatment for	18	2	..	..	3	1	50	9	71	12
(*b*) After completion of a course of treatment, but before final tests as to cure of	..	..	..	..	..	..	..	..	..	..

VENEREAL DISEASES—*Continued.*

	Syphilis.		Soft Chancre.		Gonorrhœa.		Condition other than Venereal.		Total.	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
4. Number of persons transferred to other Treatment Centres after treatment for	..	..	..	..	..	1	..	..	..	1
5. Number of persons discharged from the Out-Patient Clinic after completion of treatment and observation for	10	8	..	..	6	..	14	20	30	28
6. Number of persons who, on the 1st of January, 1922, were under treatment or observation for...	185	126	..	..	384	35	366	361	935	522
Total. Items 3, 4, 5, 6	213	136	..	..	393	37	430	390	1036	563
7. Total Attendances of all persons at the Out-Patient Clinic who were suffering from	2647	1948	..	..	3536	104	2435	2791	8618	4843
8. Aggregate number of "In-Patient" days of treatment given to persons who were suffering from	180	29	..	..	352	..	159	368	691	397

	For Detection of			For Wasserman Reaction.
	Spirochetes.	Gonococci.	Other Organisms.	
9. Examinations of Pathological Material :—				
Specimens which were examined at				

The Salvarsan substitute used in the treatment of Syphilis is Neokharsivan, and Stabilarsan.

Amount and kind of treatment usually administered to a case of Syphilis of each of the types usually dealt with at a Treatment Centre :—

First Course— Weekly injections of Neokharsivan and Mercury (Males).

Grammes of Neokharsivan.									
·45	·6	·75	·75	·9	·9	·9	·9		
Hg.	Hg.	Hg.	Hg.	Hg.	Hg.	Hg.	Hg.	Hg.	Hg.

If case is seen in pre-positive Wasserman stage further treatment may not be necessary, but if Lysis is delayed, or if there is a Wasserman positive when seen, then further Intra-venus injections of Neokharsivan and Mercury are continued. The first of the second series of courses is given six weeks after first course ends, and the interval is increased by two weeks each time. The whole course lasts nearly two years.

Nature of tests applied in deciding as to discharge of patients :—

Repeated blood tests at three monthly intervals over two years after all treatment has been discontinued, in addition to absence of clinical signs and symptoms. Final test (Blood Test after provocative Intra-venus injection.

TUBERCULOSIS.

(i.) The premises available for Dispensary treatmen consisted of one consulting room, with dressing and waitin rooms attached, situate at No. 137, Regent Roa Salford. There are no branch dispensaries or visitin stations.

(ii.) Tuberculosis Officer.... W. W. Uttley, M.B., M.R.C.P.

The staff also includes four Health Visitors and tw Clerks.

The residential institutions in connection with th scheme are :—

(*a*) NAB TOP SANATORIUM, Marple, for early an intermediate cases of tuberculosis (100 beds).

Resident Medical Officer : H. M. Fleming, M.D., B.

(*b*) LADYWELL SANATORIUM, Salford. This San torium is the Infectious Diseases Hospital for th Borough, and a separate pavilion containin 48 beds is set apart for the isolation and trea ment of advanced cases of tuberculosis.

Medical Superintendent : J. W. Mullen, L.R.C.P L.M.

Assistant Medical Officer : P. D. Connolly, M. Ch. B., B.A.O.

(iii.) (*a*) Arrangements have been made and are in operation for the treatment of Surgical Tuberculosis, after approval by the Tuberculosis Officer, with the Salford Royal Hospital.

(*b*) Special arrangements have been made with the Manchester Skin Hospital for the treatment of Lupus and other Tuberculous skin disease. Number of Tuberculous Skin Cases treated during the year, 73. Number of Examinations made, 178. Attendances at Manchester Skin Hospital, 990.

(*c*) There is close co-operation with the School Clinic of the Salford Education Authority, which is situate in the same building.

(iv.) (*a*) The total number of cases referred by Medical Practitioners during last year was 442. All sputum examinations desired by Medical Practitioners are made at the dispensary. (*See* Table I.; 891 specimens examined last year).

(*b*) Medical Practitioners attending insured (National Health Insurance) cases at home furnish the Health Department with records of progress every three months, and such cases are examined periodically by the Tuberculosis Officers.

(v.) In cases where the diagnosis is doubtful, the patient is kept on dispensary treatment until a definite diagnosis can be made. In the cases where such patients remain under their own doctor, they are periodically re-invited to the dispensary for re-examination. (*See* Table I.; cases retained for further observation, 938); contacts retained for further observation, 152.

(vi.) The Health Visitors visit the home of every notified case at frequent intervals. (*See* Table I.; 11,196 visits last year). The Health Visitors make every effort to secure the attendance at the dispensary of all contacts residing in the same house. (*See* Table I.: 642 examinations of contacts).

(vii.) (*a*) TUBERCULIN.—Tuberculin as a curative agent has been used in certain cases, but is not used as a routine measure.

(*b*) X-RAY.—The X-ray screen has been used in certain cases for the diagnosis of fluid, cavities, etc., but has not been used as a routine method of diagnosis.

(*c*) LADYWELL SANATORIUM.—The method of isolation of advanced cases in this manner appears to be of much value, but is detracted from by the difficulty in keeping the patients in hospital indefinitely.

CONCURRENT TRAINING AND TREATMENT.—Four discharged soldiers were admitted to Training Centres.

DISPENSARY TREATMENT.—The effect of dispensary treatment depends chiefly upon the degree of acuteness of disease in each individual case, the home conditions, the facilities for obtaining suitable food and the general habits of the patient. Acute cases do not do well as a rule, but the bulk of the patients attending are cases suffering from chronic disease, who in most cases appear to keep stationary for long periods.

(viii.) There is no special dental treatment provided by the Council for Tuberculous patients.

(ix.) (*a*) Arrangements have been made by the Tuberculosis Committee for the nursing of tuberculosis patients at home with the District Nursing Association.

(*b*) EXTRA NOURISHMENT.—Milk and Eggs are provided in suitable cases, according to the recommendations of the Ministry of Health.

(x.) Arrangements have been made for the treatment of non-pulmonary tuberculosis at the Salford Royal Hospital, who provide their own surgical apparatus.

(xi.) There is no "After Care" Committee in Salford, and these duties are largely undertaken by the Health Visitors. Valuable assistance has been rendered from time to time by the Salford Civic League of Help.

(xii.) No special arrangements are made locally for finding employment for Tuberculosis patients.

(xiii.) Shelters are not supplied to patients at their homes, and in the great bulk of cases their use would be impracticable.

(xiv.) There are no special points relating to the local incidence of Tuberculosis.

(xv.) A valuable aid to the prevention of Tuberculosis would be an increase in the accommodation for the isolation of advanced cases and increased powers to insure such isolation.

(xvi.) (*a*) SPECIAL DIFFICULTIES.—The disinclination of advanced cases for isolation.

(*b*) The difficulty experienced by arrested cases in obtaining employment.

(*c*) The difficulty of impressing upon patients the gravity of the complaint and ensuring that they are consistently following the treatment prescribed.

(*d*) The insidious nature of the onset of the disease in many cases unfortunately allows the patient to reach an advanced stage before he realises that he is actually ill and seeks medical advice.

Particulars of the cases notified, treated at the Nab Top Sanatorium, Ladywell Sanatorium, and at the Dispensary, are given in the following Tables ; Table 2, gives the period elapsing between notification and death of the fatal cases, and illustrates one of the great difficulties of preventive work, 12 per cent being not notified at all.

During the year 125 new cases of discharged tuberculous soldiers and 322 old cases came under our notice. Of this number 129 were admitted to residential institutions as follows :—

73 Ex-Service men admitted to Nab Top Sanatorium, Marple.

52 Ex-Service men admitted to Ladywell Sanatorium.

4 other men were admitted to outside institutions and training centres.

	Insured Cases.			Others.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
New Cases Examined—									
(*a*) Diagnosed as Tuberculous	173	63	236	37	70	107	210	133	343
(*b*) Diagnosed as Non-tuberculous	29	20	49	9	15	24	38	35	73
(*c*) Taken under Observation	81	39	120	45	61	106	126	100	226
Cases Re-examined—									
(*a*) Diagnosed as Tuberculous (Old Cases)	1311	286	1597	235	407	642	1546	693	2239
(*b*) Diagnosed as Non-tuberculous	68	27	95	59	99	158	127	126	253
(*c*) For further Observation	198	69	267	206	239	445	404	308	712
Cases Sent by Medical Practitioners	226	111	337	38	67	105	264	178	442
Cases Discharged—									
(*a*) From Treatment	4	3	7	4	16	20	8	19	27
(*b*) From Observation	18	13	31	46	68	114	64	81	145
Contacts Examined—Positive	1	..	1	4	3	7	5	3	8
Negative	34	58	92	29	100	129	63	158	221
Taken under Observation	8	12	20	7	26	33	15	38	53
Contacts Examined (School Children)—Positive	..	..	..	1	5	6	1	5	6
Negative	..	..	..	128	127	255	128	127	255
Taken under Observation	..	..	..	50	49	99	50	49	99
No. of Attendances	2072	664	2736	1607	2314	3921	3679	2978	6657
Deaths of Dispensary Cases	99	38	137	10	39	49	109	77	186
Cases Returned from Nab Top Sanatorium and taken under Observation	138	48	186	41	75	116	179	123	302
Cases returned from Ladywell and taken under Observation	78	12	90	15	14	29	93	26	119
New Cases attended during 1923 (Ins. and Non-Ins.)	..	..	..	..	..	..	372	275	647
Old Cases attended during 1923 (Ins. and Non-Ins)	..	..	..	..	..	..	866	747	1613

	Negative.	Positive.	Total.
Samples of Sputum Examined—			
Dispensary Cases	174	54	228
General Practitioner's Cases	493	170	663

Nurses' Visits to Homes of Patients: 11,196.

Nurses' Visits to Homes of Discharged Soldiers and Sailors: 2,873.

Doctors' Visits to Homes of Patients: 65

TABLE 2.

SHOWING PERIOD ELAPSING BETWEEN NOTIFICATION AND DEATH IN FATAL CASES OF PHTHISIS.

	Number.	Percentage
Not notified	38	12·2
Notified day of death or after	18	5·7
,, within three months of death	76	24·4
,, from three months to one year before death	83	26·6
,, from one year to two years before death	29	9·6
Over two years	67	21·5

Total number of deaths, 311.

Ratio, 38—311.

The notification of tuberculosis in the district has been fairly satisfactory during the year, but, as Salford is a port, there is a liability for advanced cases of tuberculosis to arrive in the Borough and die before notification here.

For further information see paragraph iv.

TABLE 3.

AGE AND SEX DISTRIBUTION OF CASES OF PHTHISIS NOTIFIED DURING THE YEAR 1923.

	Males.		Females.		Totals.	
	No. Notified	Deaths	No. Notified	Deaths	No. Notified	Deaths
Under 10 years	32	2	16	..	48	2
10 to 20 ,,	40	3	46	10	86	13
20 to 30 ,,	65	16	56	13	121	29
30 to 40 ,,	49	14	50	14	99	28
40 to 50 ,,	75	22	30	7	105	29
50 to 60 ,,	42	10	16	2	58	12
Over 60 ,,	22	8	8	3	30	11
TOTALS	325	75	222	49	547	124

TABLE 4.

OCCUPATIONS OF THE 547 CASES NOTIFIED.

MALES.

Joiners, House Decorators and Building Trades ..	9
Carters, Hawkers, and Car Drivers	11
Labourers and Navvies..	75
Railway Workers	4
Seamen	5
Firemen.....	2
Clerks & Warehousemen	26
Packers.....	7
Metal Workers	18
Makers of Wearing Apparel	6
Colliers	5
Bakers.....	2
Mechanics and Engineers	18
14. Children under 5	5
15. Scholars	35
16. Commercial Travellers ..	3
17. Porters	4
18. Printers and Bookbinders	6
19. Insurance Agents	3
20. Shop Assistants.....	10
21. Employees in Cotton Mills	3
22. Cattle Dealers	2
23. Butchers	4
24. No Occupation.....	6
25. No Occupation Stated..	4
26. Other Various Occupa-Occupations.....	52
Total.....	325

Of these, 325 primary cases of Tuberculosis, 90 were ex-service men.

FEMALES.

Mill Hands	Workers in Textile Factories	22
Weavers ..		2
Housewives.....		86
Charwomen and Laundresses		2
Makers of Wearing Apparel		20
Clerks and Typists		8
Printers and Bookbinders		1
Servants		16
Packers		1
10. Metal Workers		1
11. Shop Assistants		3
12. Waitresses		2
13. Nurses		2
14. Children under 5		6
15. Scholars		27
16. Other various Occupations		11
17. No Occupation		8
17. No Occupation stated ..		4
Total.....		222

TABLE 5.

INSPECTOR'S REPORT ON THE DURATION OF THE DISEASE IN CASES VISITED AT THE TIME OF NOTIFICATION.

When Notified.	
Under six months	185
Over 6 months to 1 year.....	62
„ 1 year to 18 months.....	64
„ 18 months to 2 years	20
„ 2 years to 3 years	35
„ 3 years	86
No Time Stated	82
	534*

* Thirteen notifications were marked not to be visited.

The School Medical Officers notified 10 new cases on Form "B" as suffering from Tuberculosis:—

5 Cases Pulmonary Tuberculosis.

5 Cases Other Forms of Tuberculosis.

During the year 1923, 144 notifications of non-pulmonary tuberculosis have been received. Nineteen of these are re-notifications of cases already on the book and 125 are new cases.

The new cases notified are classified in the following ble :—

	Glands.	Bones.	Abdo-men.	Skin.	Men-inges.	Other forms.	Totals.
nder 10 years ...	13	21	19	1	4	2	60
to 20 years	13	7	10	3	3	1	37
„ 30 „	2	4	3	4	..	1	14
„ 40 „	2	..	1	1	..	3	7
ver 40 „	1	2	..	2	..	2	7
otals	31	34	33	11	7	9	125

LADYWELL SANATORIUM.

TABLE SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER OF "PATIENT DAYS" FOR 1923

	Insured M.	Insured F.	Uninsured M.	Uninsured F.	Total
Total Number of Admissions during 1923	103	33	14	20	17
Number of Persons Admitted in 1922 who remained in Hospital for some part of 1923	38	..	3	..	
Total Number of Discharges during 1923	117	19	17	10	16
Patients in Hospital on the 31st December, 1923	24	14	..	10	
Number of "Patient Days" for Persons Admitted during 1923	6,111	1,877	784	1,399	10,1
Number of "Patient Days" (in 1923) for Persons Admitted in 1922 who remained in Hospital for some part of 1923	4,502	..	78	..	4,5
Total Number of "Patient Days" for 1923	10,613	1,877	862	1,399	14,7
Average Number of Patients in Hospital each day during 1923	29·03	5·11	2·36	3·83	40

port of the Resident Medical Officer at Nab Top Sanatorium, Marple, 1923.

ESIDENT STAFF.—Resident Medical Officer, Matron, me Sister, two Ward Sisters, eleven Nurses, Cook, ndress seventeen Maids and Lodge Porter.

ON-RESIDENT STAFF.—Engineer and Porter.

ACCOMMODATION.—There is accommodation for 100 ients (50 adult males, 34 adult females, 8 male children 8 female children).

YPE OF CASE TREATED.—The Sanatorium is used for treatment of early and intermediate cases of phthisis. ew advanced cases who show good resistance to the ase are also treated. A number of "observation" s are also admitted.

INES OF TREATMENT.—The treatment adopted is fly hygienic—open-air, rest and graduated exercise. admission, patients after a period of rest in bed, are on walking exercise, the distance being gradually eased. Afterwards this is supplemented by light ward k. Those who show a satisfactory resistance are then ed on graduated work, beginning with light gardening k and rising to heavier work such as grass cutting and rolling, wood chopping, wheelbarrow work and ng. Walking exercise is taken round two fields, circumference of that reserved for women being quarter mile, and that for men one-third of a mile. is connection it may be of interest to note that the

paths round these fields have been entirely made b patient labour The hygienic treatment is supplemente when necessary by drug treatment. Suitable cases a treated by Tuberculin and Defatted Vaccines.

FARM.—A poultry farm maintained on the premis supplies many of the eggs required for consumption.

RECREATION.—The dining hall is set apart for the u of patients every Saturday evening after supper, whe whist and other card games are indulged in. A wirele set in the dining hall is in use each night during supp hour. Concerts are arranged about once a month fro October to April, given by outside talent, and on thr occasions during the winter plays have been staged.

CANTEEN.—A canteen has been established in t grounds wherein are sold those articles likely to be us in everyday life.

EDUCATION.—The Resident Medical Officer at freque intervals lectures to the patients on such subjects "Pulmonary Tuberculosis," "Rules of Health" a "The Care of the Mouth and Teeth." It is hoped th on leaving, patients may carry out the instructions giv in these lectures and thus minimise the spread of infecti in their own homes.

The Sanatorium was opened on December 18th, 19 and the appended tables give the number of admissio etc., from that date to the end of 1923.

TABLE A (NAB TOP SANATORIUM).

ING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER OF "PATIENT-DAYS" FROM 18TH DECEMBER, 1922, TO 31ST DECEMBER, 1923, INCLUSIVE.

	Total Adults.		Children under 16.			Totals.		
	Males	Female	Males	Female	Both	Males	Female	Both
nissions 1922..	13	10	9	4	13	22	14	36
of Patients ed in 1922 who ed in Sana- for some part	11	10	9	4	13	20	14	34
of "Patient- in 1923 for admitted in d who remained natorium for art of 1923....	1294	886	998	447	1445	2292	1333	3625
nissions 1923..	174	115	31	32	63	205	147	352
charges 1923 ..	149	107	31	27	58	180	134	314
of "Patient- for persons d during 1923.	13729	9901	2244	2140	4384	15973	12041	28014
number of t-days" for	15023	10787	3242	2587	5829	18265	13374	31639
number of s in Sanatorium y during 1923.	40·69	29·09	8·82	6·68	15·50	49·51	35·77	85·28

E.—The term "Patient-days" represents the product of the number of patients number of days spent by these patients in the Sanatorium.

SECTION IV.

MEDICAL INSPECTION OF SCHOOLS.

Staff.

dical Officer to the Education Committee ..... lso Medical Officer of Health)	H. OSBORNE, M.D., M.R.C.S., D.P.H., etc.
sistant Medical Officers	H. HEATHCOTE, M.D., D.P.H. G. HEATHCOTE, M.B., Ch.B. E. N. RAMSBOTTOM, M.D.(Lond.), B.Sc., D.P.H., etc. J. G. McKINLAY, M.B., Ch.B., D.P.H.
hool Ophthalmic Officer	J. L. MEYNELL, M.D., M.R.C.S., D.P.H.
hool Dentists	H. MALLINSON, L.D.S., F.P.S. A. E. SHERRATT, L.D.S., R.C.S.

SCHOOL NURSES.

Miss M. M. TURNER (Superintendent).

Miss L. HOPSON.
,, G. WILLIAMS.
,, M. JARVIS.
,, R. LEE.
,, C. WEIR.
Mrs. A. G. WILLMOTT.
Miss M. MOORE.
,, A. HAIRS.
,, A. ROWLAND.
,, J. BARTON.
,, H. ELLIOTT.
,, W. M. MELLOR.

CLERICAL STAFF.

Mr. J. PRESTWICH (Senior).

Miss E. L. MELLOR.
,, D. M. BARNES.
,, D. ARNOLD.
,, E. FRIESER.
Miss E. BARLOW.
,, M. DUTTON.
,, P. WILSON.
,, D. LEECH.

Co-ordination

(*a*) INFANT AND CHILD WELFARE.—Medical records are now transferred from the Child Welfare Department to the School Medical Department when children attain school age. As the two Child Welfare Centres at Regent Road and Teneriffe Street are housed in the same buildings as the two School Clinics co-operation of the two departments is further assured.

(*b*) NURSERY SCHOOLS.—The Child Welfare Medical Officer pays weekly visits to the Nursery School for the purpose of examining the children. The school is also visited by the School Nurses.

(*c*) DEBILITATED CHILDREN under school age are dealt with in the Child Welfare Department.

School Hygiene.

Broadly speaking, we can hope for no material improvement until the present type of school building has been replaced by structures built more on the lines of Open-Air Schools, or some of the up-to-date Special Schools, where classrooms are open on one side at least to the outer air.

If such provision has proved of marked benefit to the *ailing* child, why should it be withheld from the *normal* child ?

The present provision is much to be condemned inasmuch as the cases of glandular tuberculosis with which we fill our Open-Air Schools are, in the first place

often developed under the unhealthy conditions experienced in the ordinary Elementary Schools.

As regards sanitation the schools were regularly visited by the Sanitary Inspectors, who have paid altogether 200 visits. Improvement in the sanitary condition of outside offices, yards, etc., has been maintained.

Sanitary Inspectors' Visits to Schools		200
Defects Found		49
Downspouts defective.....	5	
W.C.'s defective.....	19	
Water pipes defective	4	
Yard surfaces out of repair	11	
Flushing Cisterns Defective	4	
Eaves gutters defective	1	
Urinal gullies defective	5	
	49	
Schools disinfected		3

Routine Medical Inspection.

School doctors visit the whole of the Elementary Schools of the Borough for the purpose of medical inspection.

The Routine Inspection comprises three age groups of children, namely, children of five years, eight years and twelve years of age ; these are the "Code Groups" examined every year, so that each child should be medically examined at least three times during its school career.

(*A*) Routine Medical Inspection in the Schools by the Medical Inspectors.

The arrangements for routine medical inspection are as follows :—

Each school is notified some weeks in advance of medical inspection, the Head Teacher receiving a form requesting a return of the numbers of children of the three Code Groups on the Register. A further notification of the actual date of inspection is later forwarded to the teacher, the notification being accompanied by printed forms for the invitation of parents to be present at the inspection. These invitation forms give the hour as well as the date of inspection, and so obviate unnecessary waiting of parents on the school premises.

At each inspection the Medical Officer has the assistance of a School Nurse.

The School Nurse weighs and measures the children, tests vision with the ordinary types, and loosens the child's clothing for the doctor.

As the clerical staff has been reduced in the interests of economy, the School Medical Inspectors now enter all details of medical inspection on the cards in the schools.

Parents present at the inspection are, of course, notified directly of any defect discovered, and they are advised as to the necessary treatment.

The work of following up by Attendance Officers has now been replaced by re-examination of such cases by the Medical Inspector at the Inspection Clinic, and also by home visits carried out by the School Nurses.

(*B*) INSPECTION IN THE SCHOOLS BY NURSES.

One of the most important duties of the School Nurse is to visit the schools for the purpose of "cleanliness inspection."

On such occasions the whole of the children in attendance at a given school are submitted to inspection by the School Nurse, all heads being rapidly examined for Pediculosis, and in suspected cases the bodies also. A classification of the children's heads is made :—

A.—Signifying freedom from vermin or nits.
B.—The presence of a few nits only.
C.—The presence of a large number of nits or live vermin.

Class B children are given marked cards with warning and instructions, but are not excluded from school.

Class C children are given marked cards and are also excluded from school for 24 hours, when they are re-examined by the Nurse. In the latter case if it is found that the warning has been neglected, verminous notices are issued and the case dealt with according to Section 122 of the Children's Act, 1908.

At the present time the aim is to submit every school in the Borough to "cleanliness inspection" three times during the year. This means, in practice, the inspection of every school for this purpose during the period—

(*a*) From the beginning of the year to Easter ;
(*b*) from Easter to the Midsummer Holidays ;
(*c*) from the Midsummer Holidays to the end of the year.

This aim has been accomplished during the past year, when 98,999 "cleanliness inspections" were carried out by the School Nurses.

Subsequent to the visits of the Nurses to the schools for "cleanliness inspection," the schools are notified of the results of such inspection, and a notice is posted up showing the number of children classified A, B and C. This procedure is believed to have a stimulating effect.

In addition to periodical visits for "cleanliness inspection," special visits are paid by the Nurses at the request of the teacher for the specific purpose of examining children suspected of harbouring vermin or of suffering from contagious skin disease, &c.

Again, the Nurses visit schools during epidemic outbreak, and in this connection the Nurse with special fever training and experienced in throat examinations is useful.

(*C*) The Inspection Clinic.

Three Medical Officers now attend each afternoon, and one each morning, for the purpose of examining "special cases." These include—

(1) Cases referred by the Medical Officers themselves in the course of routine medical inspection in the schools.

(2) Cases referred by School Nurses from the schools.

(3) Cases referred by School Teachers.

(4) Cases referred by the Attendance Officers.

(5) Cases in which medical examination is requested by the parents.

With reference to these examinations it is necessary to issue a fixed number of invitations for each session, the number varying according to the type of case, otherwise the Medical Officers would be overwhelmed on some occasions.

The Inspection Clinic serves a number of purposes.

First of all, it serves as a clearing house for children referred from different sources. For instance, cases with defects are advised as to the necessity for treatment, and are sent to the family doctor where such exists. Otherwise, cases are sent to one of the Voluntary Hospitals, or are dealt with under the Local Authority's scheme; needy cases requiring operation are referred to hospital, minor ailments are sent to the Minor Ailments Clinic, dental sepsis to the Dental Clinic, visual defects to the Eye Clinic, and scalp ringworm to the X-Ray Clinic.

Secondly, the Inspection Clinic serves as a Court of Appeal for children booked by the Attendance Officer for absence from school on the grounds of alleged ill-health.

Thirdly, it plays a great part in the "following up" of cases referred for treatment, especially where such is not obtained under the Local Authority's scheme, invitation to attend the Inspection Clinic for re-examination being issued a certain period after the recommendation for treatment. Here the "following up" is done by the Medical Officer himself.

Fourthly, the Inspection Clinic serves for the examination and grading of exceptional children, such as mentally defective.

Fifthly, it serves as a discharging centre for cases previously excluded on medical grounds. For instance, no case of scalp ringworm once excluded from school may be re-admitted until officially discharged and certified "fit for school" by the School Medical Officer.

During the year 1923 the total number of examinations of children at the Inspection Clinic was 18,648.

Findings of Medical Inspection.

Uncleanliness.

Children's heads and bodies were examined for pediculosis on the occasion of the Nurses' visits to schools when children of all ages were submitted to examination.

The number of children examined by the Nurses in the elementary schools totalled 98,999.

The Nurses have been able to visit all the schools in the Borough on three separate occasions during the year for the purpose of "cleanliness inspection," and the standard of cleanliness now adopted is very strict.

Tables showing prevalence of pediculosis are hereby appended :—

BLES SHOWING PREVALENCE OF PEDICULOSIS IN DEPARTMENTS WHERE LL THE SCHOLARS PRESENT WERE EXAMINED BY THE SCHOOL NURSES.

INFANTS' DEPARTMENTS.

	BOYS.					GIRLS.				
	No. examin'd	Heads. *A.	B.	C.	Ver-minous bodies.	No. examin'd	Heads. *A.	B.	C.	Ver-minous bodies.
..	13756	13206	481	69	62	14536	9452	4258	826	23
..	—	96·00	3·50	·50	—	—	65·03	29·29	5·68	—

UPPER DEPARTMENTS.

	BOYS.					GIRLS.				
	No. examin'd	Heads. *A.	B.	C.	Ver-minous bodies.	No. examin'd	Heads. *A.	B.	C.	Ver-minous bodies.
..	36403	35115	1096	192	204	34304	22133	10480	1691	69
..	—	96·46	3·01	·53	—	—	64·52	30·55	4·93	—

* Heads A—Where neither vermin nor nits are present.
B—Containing a small number of nits only.
C—Containing live vermin or numerous nits.

The accompanying table shows the work done under ction 122 of the Children Act, 1908 :—

	BOYS.				GIRLS.				
er of ing es d.	Hair Cut. By Nurse.	By Parent.	Cleansed at Mode Wheel Disinfecting Station.	Cleansed at Home.	Number of Cleansing Notices Served.	Hair Cut. By Nurse.	By Parent.	Cleansed at Mode Wheel Disinfecting Station.	Cleansed at Home.
)	7	12	14	39	1121	635	404	9	31

Tonsils and Adenoids.

In routine cases 380 were found to be suffering fron enlarged tonsils or adenoids, or both, whilst in additio 746 special cases were found with the same condition As in previous years it was found that a number of case of enlarged tonsils were temporary in character, th condition disappearing in a short period of time, thu emphasising the importance of re-examining all thes cases after an interval of a month or so before decidin on surgical measures.

Tuberculosis.

Amongst the inspection cases there were 513 childre diagnosed as suffering from tuberculosis, 198 being fairl definite, and 315 suspected cases. At the same tim there were very few advanced cases of phthisis, th majority being probably chiefly confined to the bronchi or mediastinal lymphatic glands and giving rise t indefinite physical signs, although the children we obviously suffering from the effects of toxic absorptio such as languor, anorexia, loss of flesh, night sweats, et The majority of such children are adversely affected b compulsory attendance at an ordinary school.

The Committee have fully realised the necessity f further Open-Air School provision, and a new scho planned in accordance with modern ideas of hygien will shortly be opened for the reception of delica children.

Ringworm.

Cases of ringworm are notified by Teachers a Attendance Officers, as well as by the Medical Inspecti Staff. All cases are invited to attend periodically at t

ntre for inspection, and no child who has been known have ringworm is allowed to return to school without certificate from the Medical Officer.

During the year 1923, 168 new cases of scalp ringworm d 116 cases of body ringworm have been under super- sion at the Inspection Clinic, and the total number of aminations in these cases amounted to 841.

Alopecia.

There have been 161 new cases under supervision the Inspection Centre, with a total of 624 examinations.

The practice of exclusion of these cases until dis- pearance of alopecia stumps and appearance of new ir growth over the affected patches has been con- ued.

Eczema, Impetigo and Sores.

The number of new cases of these diseases under servation during the past year was 1,833, and the mber of examinations 4,181.

Scabies.

There were 68 cases under supervision and 112 aminations. There has been a further marked reduction the number of cases of scabies as compared with last r, due, no doubt, to the thoroughness of the treatment ried out daily at the Mode Wheel Disinfecting Station.

External Eye Disease.

The bulk of the cases of external eye disease found inspection, as usual, proved to be conjunctivitis or pharitis of a fairly mild type.

There have been no serious outbreaks of ophthalmia in any of the schools. The practice adopted is to exclude every case of conjunctivitis in which there is possibility of infection.

Vision.

Routine medical inspection in the case of the eight year-old group and twelve-year-old group includes the testing of vision by means of the usual types at a distance of six metres. Children whose distant vision is represented by 6/18 or worse, also any children who appear to be suffering from the effects of eye strain, or children of five years suffering from strabismus are all referred for examination at the Refraction Clinic by the Eye Specialist.

During the year under consideration, 998 cases have been referred for examination at the Refraction Clinic

Ear Disease and Hearing.

The great majority of cases of ear disease met with in routine inspection are children suffering from suppurating discharge from the middle ear. These are the cases which in the old days were generally allowed to go untreated, and they often became very offensive for want of attention.

Nine hundred and nineteen cases were met with by the Medical Inspectors and most of these were dealt with at the School Clinic.

Dental Defects.

The following tables show (*a*) the number of sound and decayed teeth (both temporary and permanent) and (*b*) the actual state of teeth and gums, and the grinding capacity; (*c*) the actual number of decayed teeth, *per child*, among the children examined by the School Dentists.

TABLE A.

Routine Dental Inspection.

	Age	Number examined.	Temporary Teeth.				Permanent Teeth.			
			Number present.	Average per child.	Number decayed	Average per child.	Number present.	Average per child.	Number decayed.	Average per child.
Boys	6	646	11718	18·14	4097	6·34	2026	3·14	208	·32
	7	726	10962	15·10	4138	5·70	4798	6·61	562	·77
	8	811	9898	12·20	4336	5·35	7770	9·58	872	1·07
	9	2382	14134	5·93	7139	3·00	39420	16·55	4051	1·70
	Total ...	4565	46712	10·23	19710	4·32	54014	11·83	5693	1·25
Girls	6	592	10451	17·65	3486	5·89	2255	3·81	181	·31
	7	697	10068	14·44	3698	5·30	5232	7·51	544	·78
	8	806	8721	10·82	3707	4·60	8753	10·86	992	1·23
	9	2224	10801	4·86	5436	2·44	39217	17·63	4100	1·84
	Total ...	4319	40041	9·27	16327	3·78	55457	12·84	5817	1·35
Boys and Girls...	Total ...	8884	86753	9·76	36037	4·05	109471	12·32	11510	1·30

TABLE B.

Routine Dental Inspection.

	Age.	Number examined.	State of Teeth.			Condition of Gums.			Grinding Capacity.			Temporary Teeth.		Permanent Teeth.			Hypoplastic.
			Clean.	Fairly clean.	Dirty.	Healthy	Inflamed.	Septic.	Good.	Average.	Bad.	Sound.	Decayed	Sound.	Decayed. Saveable	Decayed. Unsaveable	
Boys	6	646	413	210	23	288	157	201	50	529	67	7621	4097	1818	189	19	18
	7	726	426	276	24	308	196	222	45	633	48	6824	4138	4236	506	56	111
	8	811	442	343	26	391	233	187	37	729	45	5562	4336	6898	681	191	185
	9	2382	934	1350	98	1479	587	316	127	2062	193	6995	7139	35369	2356	1695	408
	Total	4565	2215	2179	171	2466	1173	926	259	3953	353	27002	19710	48321	3732	1961	722
Girls	6	592	385	191	16	278	139	175	77	467	48	6965	3486	2074	151	30	11
	7	697	453	230	14	362	164	171	56	611	30	6370	3698	4688	486	58	59
	8	806	441	350	15	387	207	212	45	687	74	5014	3707	7761	782	210	100
	9	2224	1058	1113	53	1358	570	296	157	1894	173	5365	5436	35117	2487	1613	264
	Total	4319	2337	1884	98	2385	1080	854	335	3659	325	23714	16327	49640	3906	1911	434
Boys & Girls	Total	8884	4552	4063	269	4851	2253	1780	594	7612	678	50716	36037	97961	7638	3872	1156

Number of Decayed Teeth.....	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 and upwards	Total No. of Decayed Teeth.	Total No. of Children.
Boys aged 6—																							
Aggregate No. of Children	28	30	52	53	65	53	63	53	44	40	46	33	25	14	15	15	9	4	2	2	..	4305	646
Percentages	4·34	4·64	8·06	8·20	10·07	8·20	9·75	8·20	6·81	6·19	7·12	5·11	3·87	2·17	2·32	2·32	1·39	·62	·31	·31	..	..	100·00
Girls aged 6—																							
Aggregate No. of Children	42	38	45	47	48	71	53	43	42	41	30	23	23	12	11	9	3	4	2	2	3	3667	592
Percentages	7·09	6·42	7·60	7·94	8·11	11·99	8·95	7·26	7·09	6·93	5·07	3·88	3·88	2·03	1·86	1·52	·51	·68	·34	·34	·51	..	100·00
Boys aged 7—																							
Aggregate No. of Children	25	29	53	65	66	75	78	71	58	51	40	40	32	14	12	9	4	2	2	..	..	4700	726
Percentages	3·44	3·99	7·30	8·95	9·09	10·33	10·74	9·78	7·99	7·03	5·51	5·51	4·41	1·93	1·65	1·24	·55	·28	·28	..	..	..	100·00
Girls aged 7—																							
Aggregate No. of Children	36	27	57	62	74	78	74	61	58	35	54	24	15	20	8	7	3	3	..	1	..	4242	696
Percentages	5·16	3·88	8·18	8·90	10·62	11·19	10·62	8·75	8·32	5·02	7·74	3·44	2·16	2·87	1·15	1·00	·43	·43	..	·14	..	..	100·00
Boys aged 8—																							
Aggregate No. of Children	24	31	56	66	88	84	83	84	84	55	51	32	23	21	16	5	5	2	1	..	..	5208	811
Percentages	2·96	3·82	6·91	8·14	10·85	10·36	10·23	10·36	10·36	6·79	6·29	3·95	2·84	2·59	1·97	·61	·61	·25	·12	..	..	..	100·00
Girls aged 8—																							
Aggregate No. of Children	35	31	82	78	82	94	70	82	75	61	38	30	23	13	8	2	2	..	..	..	..	4699	806
Percentages	4·34	3·85	10·17	9·67	10·17	11·66	8·69	10·17	9·31	7·57	4·72	3·72	2·85	1·61	1·00	·25	·25	..	..	..	..	..	100·00
Boys aged 9 and over—																							
Aggregate No. of Children	108	224	315	314	312	282	220	173	141	113	60	46	40	16	8	7	2	1	..	..	..	11190	2382
Percentages	4·54	9·40	13·23	13·18	13·10	11·84	9·24	7·26	5·92	4·74	2·52	1·93	1·68	·67	·34	·29	·08	·04	..	..	..	..	100·00
Girls aged 9 and over—																							
Aggregate No. of Children	137	221	304	349	322	214	203	164	113	76	56	25	21	12	3	2	1	1	..	..	..	9536	2224
Percentages	6·16	9·94	13·67	15·69	14·48	9·62	9·13	7·37	5·08	3·42	2·52	1·12	·94	·54	·14	·08	·05	·05	..	..	..	..	100·00
Total Girls and Boys—																							
Aggregate No. of Children	435	631	964	1034	1057	951	844	731	615	472	375	253	202	122	81	56	29	17	7	5	3	47547	8884
Percentages	4·90	7·10	10·85	11·64	11·90	10·71	9·50	8·23	6·92	5·31	4·22	2·85	2·27	1·37	·91	·63	·33	·19	·08	·06	·03	..	100·00

Average No. of Decayed Teeth per Child—**5·35.**

Crippling Defects.

Amongst the Code Group cases 11 children we referred for treatment on account of rickets.

The School Medical Inspectors have noticed th rickets and ricketty deformities are now becoming le obvious than in former years. It is thought that the wo of the Child Welfare Department, where numerous cas of rickets have been dealt with by massage for seve years past, is partly responsible for this improvemer

Infectious Disease.

A system of notification is in force whereby the He Teachers forward to the Medical Officer of Health pa ticulars of the cause of absence from sickness of t children attending their schools. These returns a sent in weekly, and are classified in the following table :

RETURN OF SICKNESS IN SCHOOLS DURING THE YEAR 1923.

Notifiable Diseases.	Measles.	Whooping Cough.	Chicken Pox.	Mumps.	Ringworm.	Ophthalmia.	Sore Throat.	Bronchitis and Pneumonia.	Colds.	
747	538	617	1221	2253	260	257	3456	1517	18054	1

At several schools there were outbreaks of chicl pox and mumps, which necessitated, over a per of time which varied in different circumstances, spe daily visits of the medical staff, at which the whole the scholars in the school were examined for the spe purpose of ascertaining their freedom from infecti These examinations have not been included in the

eding figures, as no account was taken of the number of hildren examined, and the examinations themselves ere necessarily limited to the one object in view, and o unnecessary time was spent over them.

Following Up.

The work of following up has been carried out by *a*) the School Medical Officers, and (*b*) School Nurses.

A large number of cases seen in the school during the ourse of routine inspection are referred to the Inspection linic for further examination at a later date.

Formerly " Home Visits " for the purpose of following p were carried out almost entirely by the Attendance fficers. The School Nurses, however, are now under-aking this work. During the last year they paid over 69 home visits.

Medical Treatment.

A number of defects requiring treatment are dealt ith under the Local Authorities' Scheme. This ncludes :—(1) The treatment of minor ailments at the chool Clinic ; (2) the treatment of scalp ringworm at he X-Ray Clinic ; (3) the treatment of dental defects t the Dental Clinic ; (4) the treatment of visual defects t the Eye Clinic ; and (5) the surgical treatment of onsils and adenoids at the Salford Royal Hospital.

(1) The Minor Ailments Clinic.

During the past year 1,835 new cases were treated at he Minor Ailments Clinics, Regent Road and Teneriffe treet, and the attendances of patients totalled 34,797.

The cases which received treatment were those wh would otherwise have received little or no attentio such as chronic ear discharge, chronic nasal discharg often accompanied by impaired hearing; skin disease such as tinea, alopecia, eczema, impetigo, sores an septic conditions, and such common external eye disease as conjunctivitis and blepharitis.

It is found that the great majority of these case rapidly improve under thorough treatment, and, as a rul even the bad cases are soon able to resume school.

The treatment is carried out by the School Nurse under the direction of the Medical Officers.

Two School Nurses attend the Regent Road Clin each morning and one attends the Teneriffe Street Clin each afternoon.

All cases attending the Clinic are first examined eith at the Inspection Clinic or at school by the Medic Officers, who issue cards authorising the child's atten ance at the Treatment Clinic.

The cards show the doctor's diagnosis and instructio for treatment, and the date of attendance is stamp thereon for the information of the teacher. No child treated at the Minor Ailments Clinic unless first authoris and given a card by the Medical Officer, otherwise t Nurses would be quickly overwhelmed.

The following table shows the number of new cas and attendances up to December 31st, 1923:—

	Boys.	Girls.	Tot
New Cases	1013	822	18
Attendances	19228	15569	347

Tonsils and Adenoids.

The Education Committee have an arrangement for he surgical treatment of these cases at the Salford Royal Hospital.

A list of cases considered suitable for operation is ubmitted to the hospital. After operation children re re-examined at the Inspection Clinic by a School Medical Officer.

A charge of 25s. is made by the hospital for each case perated upon, and a portion of this charge is recovered rom parents who can afford to contribute towards the ost; 210 cases have been successfully operated on uring the year.

Tuberculosis.

Children found to be suffering from definite tuberulosis are generally referred for treatment to the Tuberulosis Department. A certain number of children uffering from suspected tuberculosis are dealt with at he Open Air School.

Skin Disease.

Ringworm.—The X-Ray Clinic.

The very efficient X-Ray apparatus for the treatment f ringworm was installed early in the year 1913.

From the beginning this Clinic has been highly successl in coping with the large amount of scalp ringworm f an obstinate type formerly prevalent in the Borough.

It was generally found necessary to epilate the whole scalp in each case according to the five-exposure method of Kienböck. By this method the whole of the scalp is exposed at one sitting of approximately two hours, epilation being complete by about the end of the third week.

After X-Ray application the children are allowed to return to school, wearing a cap, as soon as epilation is complete and no ringworm stumps remain in the scalp.

A nominal charge of 5s. per child treated is made to the parent.

X-Rays have been administered to 46 cases of scalp ringworm during the year. Thirty-two cases were certified fit at the end of December.

Of the above 46 cases, it was necessary to epilate the whole scalp in 30 cases, and one patch in 16 cases.

Number of re-examinations after X-Rays, 284.

The children were fit to return to school again, on the average, five weeks after the application of the Rays.

On the other hand the 50 cases cured without the application of X-Rays were only fit to return to school on the average 26·54 weeks after the commencement of treatment, some cases taking as long as two years, and the large majority several months.

It may be too much to hope that the disease will ever be entirely eradicated, but compared with the prevalence

of the disease before the provision of X-Ray treatment, the number of cases of scalp ringworm met with at the present time is small indeed.

Eczema, Impetigo and Sores.

A large number of such cases are now being dealt with very successfully at the School Clinic, and many obstinate cases of impetigo are returned to school after a few days' treatment.

Scabies.

Cases are now treated daily by the School Nurses at the Mode Wheel Disinfecting Station, and the children are first given a warm bath, after which the appropriate remedies are applied. In most of these cases the bedding is also disinfected. It is found that this treatment very considerably shortens the duration of the disease.

Ear Disease and Hearing.

Cases of ear disease and defective hearing are generally kept under observation by the School Doctor at the Inspection Clinic, and many of these receive treatment at the School Clinic. This treatment includes the daily syringing, etc., of cases of otorrhœa and also the giving of nasal douches where the impaired hearing is due to catarrh and obstruction of the nasal passages.

Dental Clinic.

The School Dentists, as in previous years, devoted most of their time to conservative dental treatment of the first permanent teeth (six-year old molars). Actual

dental inspection in the schools was carried out on two mornings per week, the remainder of the week being occupied with the treatment of defects found in the course of this inspection.

The attendance of the children at the Clinics has been extremely good, very few of them failing to keep their appointments.

Altogether 3,495 children were treated at the Dental Clinics, making 6,096 attendances. There were 5,802 extractions of teeth, 2,802 fillings, 115 dressings and 919 scalings.

The tables on pages 125–127 show in detail the work carried out during the year 1923.

Owing to the impossibility of undertaking dental treatment for all school children in the Borough with the present staff of two, the School Dentists now confine their activities to a limited number of schools, the most needy being selected. This arrangement allows the School Dentists to follow up the cases already treated, and so keep the mouths of the children in order.

Crippling Defects.

A number of children suffering from well-marked rickety and certain other deformities are very successfully dealt with at the Greengate Dispensary under the supervision of Dr. Mumford. The children so treated are resident in the institution for a period.

The Committee are agreed that the provision of a day school to accommodate 100 crippled children is a necessity. It is hoped that this scheme will be proceeded with during the coming year.

Heart and Circulation.

In all well-marked cases of heart disease, the parents were interviewed and warned of the defect, and the children were referred for further examination in three months' time. The teachers were also warned of such defects and advised as to the child's fitness for drill or otherwise.

The Refraction Clinic.

Dr. Meynell's report is herewith appended :—

REPORT OF THE OPHTHALMIC CLINIC, SALFORD EDUCATION COMMITTEE.

"The work of the Refraction Clinic is shown in the accompanying tables. There are no outstanding occurances of the year to be noted, unless it be the increasing number of parents who seek spontaneously to make use of the clinic's facilities.

It has not generally been the practice to compel children to procure and wear glasses. Advice has been rendered and assistance given in those cases where a willingness to profit by these has been evinced, with the result that there has been an almost complete absence of hostility on the part of parents. In many cases where glasses have been advised, but the parents have been unwilling that their children should wear them, the parents have afterwards returned and asked the issue should be made. Now, it is not infrequent to find of the cases called up for a session, half the number are there because the parents themselves have made requests to the Attendance Officers of the Committee. It augurs well for the success of any treatment advised. Further, it indicates that the work of hygienic education, the true function of a school clinic, is proceeding satisfactorily.

During the past year the aims and limits of the South Bank Day School for the partially blind have been more clearly defined and its relationship to the more fully-equipped residential institutions outlined. To this end an interim report was submitted to the Committee, extracts from which have already appeared in the public press and need not be repeated here.

An inquiry has been made by a private individual living outside the boundaries of the Borough as to the conditions under which his child could be admitted to the South Bank Day School for the partially blind. The demand is at present negligible, but it must be borne in mind that a similar request may come from near by Authorities who are not provided with facilities for dealing with their visually defectives."

TABLE S IVa.

SUMMARY OF CASES SEEN BY THE OPHTHALMIC OFFICER AT THE EDUCATION OFFICE DURING THE YEAR 1923.

A.—REFRACTIONS.

	Boys.	Girls.	Total.
Hypermetropia	79	71	150
Hypermetropic Astigmatism	16	7	23
Compound Hypermetropic Astigmatism	180	73	253
Myopia	19	24	43
Myopic Astigmatism	12	13	25
Compound Myopic Astigmatism	47	74	121
Mixed Astigmatism	43	50	93
Anisometropia	9	6	15
Nil	192	169	361
TOTALS	597	487	1084

TABLE S IVa.—*Continued.*

B.—Diseases of the Eye.

	Boys.	Girls.	Total.
Muscle Disorders—			
Nystagmus	4	8	12
Squint	49	47	96
Disease of the Conjunctivæ and Lids—			
Conjunctivitis	6	6	12
Blepharitis	4	7	11
Hordeolum	..	1	1
Disease of the Cornea—			
Keratitis (active)	5	4	9
Nebulæ	11	15	26
Disease of the Lens—			
Cataract	1	..	1
Disease of the Uveal Tract—			
Iritis	1	..	1
Choroiditis	1	2	3
Disease of the Optic Nerve—			
Neuritis	3	2	5
Atrophy	..	1	1
Retrobulbar Neuritis	1	4	5
Phthisis Bulbi	..	1	1

Open-air School.

This Day School was opened on the 28th August, 1916, in the open shed and premises in the David Lewis Recreation Ground. The children admitted are selected after examination by the medical staff, from those excluded from the ordinary elementary schools by reason of their being ailing or delicate.

The staff consists of a head teacher with two assi tants. The School Nurse attends every Monday, whe the children are weighed; the Medical Inspector als visits the school every week. The children attend eac week day except Saturday, those from a distanc coming by tramcar. Three meals are provided—breal fast, dinner and tea, for which a maximum charge five shillings per week is made.

Open-air School, Year 1923.

	Boys.	Girls.	Tota
Number of Admissions during 1923	33	40	73
Number of Discharges during 1923	31	29	60
Number of Children on Register at end of Year 1923	35	48	83

Children Discharged During 1923.

	Boys.	Girls.	Tot
Average "Stay" in School (weeks).....	32·3	38·6	35
Average Gain in Weight.....	4·9	7·3	6·0 1
	yr. mth.	yr. mth.	yr. m
Average age on Admission	10 9	10 2	10

	Boys.	Girls.	Tot
Transferred to Ordinary School	18	18	3
Left, aged 14	6	3	
Admitted to Hospital.....	2	2	
Unfit for School in Winter	2	..	
,, ,, any School	..	2	
Taken off Rolls (poor attendance).....	1	1	
,, ,, ,, (removed from district)....	..	1	
,, ,, ,, (uncleanliness)	1	..	
,, ,, ,, (parents' wish)	..	2	
,, ,, ,, (died)	1	..	
	31	29	6

CLASSIFICATION OF DISEASES FROM WHICH THE ABOVE DISCHARGED CHILDREN WERE SUFFERING.

	Boys.	Girls.	Total.
Phthisis, Early	4	4	8
,, Suspected	6	5	11
Tuberculosis, Glands	3	2	5
,, Spine	1	2	3
,, Skin	1	2	3
Asthma and Bronchitis	5	1	6
Anæmia	4	8	12
Delicate	10	6	16
Malnutrition	1	..	1
Heart Disease	1	1	2
Infantile Paralysis	1	..	1
Cerebral Tumour	..	1	1
Rheumatism	..	1	1
Total	37	33	70

Physical Training.

The School Medical Officers advise as to the kind of exercises to be adopted in some cases of temporary deformity, such as slight scoliosis.

Provision of Meals.

The usual arrangements with regard to cooking of dinners and the conveyance to the feeding centres were followed.

The number of children requiring free meals shows a decrease during the year, the average monthly number being 139, as compared with 276 for the previous year.

Children examined in the schools by the Medic Officers and found to be suffering from malnutriti are referred for investigation into the parents' means ar where necessary, free meals are given.

Swimming Instruction.

During the season just closed, 17 Swimmi Instructors were appointed for boys and four for gir and the number of attendances of children during sch hours at the several baths was 24,785 in the case of bo and 21,588 in the case of girls, making a total of 46,3 as compared with 46,206 in the previous year. Repo were received from the Instructors that, of the childr attending the baths, 1,370 boys and 731 girls prov themselves able to swim.

In order to encourage the children to learn swimmi the Baths Committee have continued the arrangeme under which a free season ticket for the ensuing year given to each scholar who, at the commencement of t season, is unable to swim more than ten yards, and w at the end of the season has proved himself able to sw one length of the bath. Certificates of proficiency also awarded by the Education Committee, after examination conducted by a Committee of Head Teache The number of such certificates gained during the p season was 1,506, compared with 1,392 for the previ year.

Co-operation of Parents.

Parents present at the inspection are, of cou notified directly of any defect discovered, and th are advised as to the necessary treatment. W

rents are absent at the time of the inspection, and it desirable that they should be interviewed with respect defects discovered, invitations for these parents to tend the inspection clinic, together with the children, e issued, and so the cases are followed up.

Co-operation of Teachers.

Previous to the visit of the School Doctor, teachers tify parents of the date and time at which their children ll be examined.

Each Head Teacher supplies weekly to the Medical ficer a return of sickness in the schools. In this way ly information is obtained as to the outbreak of any ectious sickness amongst school children.

Again, a large number of the special cases examined the Inspection Clinic are children who have been erred by school teachers for medical examination.

In the case of mentally defective children the work the Medical Officer is greatly facilitated by the special orts which are furnished by Head Teachers.

Co-operation of School Attendance Officers.

The assistance of the School Attendance Officers is ained in the case of children who have been invited the Inspection Clinic and do not attend.

Cleansing notices issued in accordance with Section 122 he Children Act, 1908, are delivered by the Attendance icers, who insure the attendance of the verminous ldren at the cleansing centre.

The Superintendent of Attendance Officers is da
supplied with all information with respect to periods
school exclusion, or fitness for school in the case
children examined at the Inspection and Treatme
Clinics.

Co-operation of Voluntary Bodies.

The co-operation of the Invalid Children's A
Association and the Crippled Children's Help Associati
has been obtained in a number of cases. Through th
agencies a considerable number of children have be
sent to Holiday and Convalescent Homes at the seasi
or in the country, and in the case of some of the cripp
suitable apparatus has been supplied by these volunt
bodies.

Blind, Deaf, Defective and Epileptic Children.

A list of the above children maintained in spe
institutions will be found in Tables S IIIA. and S IIIB.
the Statistical Tables.

A school for the accommodation of partially bl
children was opened in the Borough on March 7
1921. This school serves as a Day School for child
who are not totally blind, but whose vision is too defect
for them to be taught in the ordinary schools. Twen
two children were admitted during the year.

Cases of total blindness are sent to a residen
institution.

One of the School Medical Officers, Dr. H. Heathc
is engaged in the examination and classification

ntally defective children with respect to their tability for treatment in :—

(*a*) Resident Institutions for Imbeciles.
(*b*) Special Residential Schools for Mentally Defective Children.
(*c*) Special Day Schools for Mentally Defective Children.
(*d*) Special Classes in Ordinary Schools.

A similar list is prepared in the case of physically fective children in respect of their suitability for atment in :—

(*a*) Residential Open-Air Schools.
(*b*) Day Open-Air Schools.
(*c*) Sanatorium Schools.
(*d*) Special Residential Schools for Cripples.
(*e*) Special Day Schools for Cripples.
(*f*) Special Residential Schools for Epileptics.

Nursery Schools.

As yet there is but one in the Borough, namely, at combe Place, where about twenty children are in ly attendance. This school is visited each week by Child Welfare Medical Officer.

The school is also visited by the School Nurse for the rpose of "cleanliness inspection."

Secondary Schools.

The work of medical inspection in respect of the ondary Schools has been undertaken by one of the dical Inspection Staff, Dr. H. Heathcote.

On the occasion of the visit of the doctor to each these schools the whole of the pupils in attendance h been submitted to medical examination. This exam tion is the same in character as in the case of Element Schools, and in the same way parents have an opportu of being present.

Children who may be suffering from tonsils adenoids or defective vision may now participate the Education Committee's scheme for treatment.

Following up is undertaken by Dr. H. Heathcote, re-visits the school in order to ascertain whether treatment recommended has been carried out.

Tables showing the number of pupils examined the findings of the Medical Inspector will be found the Statistical Tables.

Miscellaneous.

A number of Teachers, Exhibitioners, Bursars, special cases have been medically examined by Medical Officers during the year. (*See* Table S Ib. in Statistical Tables.)

The total number of children medically exami in the Elementary Schools during the year amounted 11,062.

During the year 25,922 invitations were sent out children referred for medical treatment, and there w 18,648 attendances; 6,413 cases were discharged from Clinic, 88·62 per cent of which were remedied. (Pages 157–158 of Statistical Tables.)

Summary of Examinations.

During the year 1923, 44,686 examinations were conducted by the Medical Officers of the Education Committee.

These examinations were made up as follows :—

(*a*) Children belonging to Code Groups examined in the Schools	11,062
(*b*) Cases of visual defects examined by retinoscopy at Chapel Street	1,084
(*c*) Absentees and cases of disease or defect examined by the Medical Officers at Regent Road Centre and Teneriffe Street Centre	18,648
(*d*) Verminous cases in which cleansing notices have been served under Section 122 of the Children Act, 1908, examined at Regent Road..	1,241
(*e*) Teachers, pupil teachers, bursars, and various special cases examined	865
(*f*) Children examined in the schools by the School Dentist	10,161
(*g*) Children examined in Secondary Schools.....	1,512
(*h*) Employment Certificates issued ..	113

STATISTICAL TABLES.

Elementary Schools.

TABLE I.

RETURN OF MEDICAL INSPECTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1923.

A.—ROUTINE MEDICAL INSPECTIONS.

	Boys.	Girls.	Tota
Number of Code Group Inspections—			
Entrants	1462	1367	2829
Intermediates	2133	2140	4273
Leavers	2004	1956	3960
Total	5599	5463	11062

Number of other Routine Inspection ....

B.—OTHER INSPECTIONS.

	Boys.	Girls.	Tota
Number of Special Inspections	3661	3665	7326
Number of Re-inspections	6889	6866	13755
Total	10550	10531	21081

TABLE II.

A.—Return of Defects found in the Course of Medical Inspection in 1923.

DEFECTS OR DISEASES.	ROUTINE INSPECTION.		SPECIALS.	
	No. referred for Treatment.	No. requiring to be kept under observation.	No. referred for Treatment.	No. requiring to be kept under observation, but not referred for treatment.
lnutrition	6	3	24	3
cleanliness, head	..	..	..	..
„ body	..	..	..	..
(See Table IV., Group V).				
n—				
Ringworm, head	9	..	142	5
„ body	5	..	115	..
Scabies	10	..	64	..
Impetigo	50	1	1086	..
Other Diseases (Non-Tubercular)	63	3	851	2
ɔ—				
Blepharitis	24	1	173	1
Conjunctivitis	38	1	339	..
Keratitis	2	..	37	..
Corneal Ulcer	3	..	15	..
Corneal Opacities	6	..	11	..
Defective Vision	546	..	87	..
Squint	40	..	27	..
Other Conditions	13	6	40	..
'—				
Defective Hearing	56	8	168	10
Otitis Media	111	1	504	12
Other Ear Diseases	19	..	30	..
se and Throat—				
Enlarged Tonsils	137	138	270	93
Adenoids	30	9	197	10
Enlarged Tonsils and Adenoids.	54	12	168	8
Other Conditions	29	7	132	18
arged Cervical Glands (Non-Tubercular)	19	9	166	30
fective Speech	22	..	11	7
th—Dental Disease	897	..	190	..
art and Circulation—				
Heart Disease, Organic	14	31	62	119
„ „ Functional	2	24	18	37
Anæmia	77	39	241	64

TABLE II.—*Continued.*

A.—Return of Defects found in the Course of Medical Inspection in 1923.

DEFECTS OR DISEASES.	ROUTINE INSPECTION.		SPECIALS.	
	No. referred for Treatment.	No. requiring to be kept under observation.	No. referred for Treatment.	No. requiring t kept under observation, b not referred f treatment.
Lungs—				
Bronchitis	105	50	211	156
Other Non-Tubercular Diseases.	21	4	72	35
Tuberculosis—				
Pulmonary, Definite	2	..	41	68
,, Suspected	23	7	56	225
Non-Pulmonary, Glands	8	1	37	12
,, Spine	1	..	1	1
Hip	1	..	5	..
Other Bones and Joints	1	1	6	1
Skin	1	..	3	1
Other Forms	6	3	20	4
Nervous System—				
Epilepsy	3	4	18	12
Chorea	3	..	112	26
Other Conditions	14	2	37	6
Deformities—				
Rickets	11	2	27	4
Spinal Curvature	3	..	4	2
Other Forms	9	3	25	5
Other Defects or Diseases	114	19	596	89
Delicate	57	71	324	192
Mentally Defective	7	9	4	8
Dull and Backward	2	3	2	4

TABLE II.—*Continued.*

B.—Number of Individual Children Found at Routine Medical Inspection to Require Treatment (Excluding Uncleanliness and Dental Diseases).

Group.	Number of Children.		Percentage of Children Found to Require Treatment.
	Inspected.	Found to Require Treatment.	
ode Groups—			Per cent.
Entrants	2829	364	12·87
Intermediates	4273	897	20·99
Leavers	3960	918	23·18
otal (code groups)	11062	2179	19·70
ther Routine Inspections	..	..	..

TABLE II.—*Continued.*

C.—Details of Re-Examination of Children in Code Groups

Defects or Diseases.	Had Treatment.	Not had Treatment
Malnutrition	2	..
Uncleanliness, head	71	..
,, body	4	..
Skin—		
Ringworm, head	3	..
,, body	4	..
Scabies	11	..
Impetigo	47	..
Other Diseases (Non-Tubercular)	64	1
Eye—		
Blepharitis	30	..
Conjunctivitis	46	..
Keratitis	3	..
Corneal Ulcer	3	..
Corneal Opacities	6	..
Defective Vision	422	112
Squint	13	13
Other Conditions	3	..
Ear—		
Defective Hearing	45	8
Otitis Media	91	4
Other Ear Diseases	12	1
Nose and Throat—		
Enlarged Tonsils	137	68
Adenoids	29	6
Enlarged Tonsils and Adenoids	31	13
Other Conditions	27	6
Enlarged Cervical Glands (Non-Tubercular)	21	1
Defective Speech	5	..
Teeth—Dental Disease	209	472
Heart and Circulation—		
Heart Disease, Organic	26	1
,, ,, Functional	25	3
Anæmia	71	2
Lungs—		
Bronchitis	114	5
Other Non-Tubercular Diseases	12	1
Tuberculosis—		
Pulmonary	1	..
,, Suspected	35	1
Non-Pulmonary, Glands	5	..
,, Spine	..	..
,, Hip	..	..
,, Other Bones and Joints	3	..
,, Skin	1	..
,, Other Forms	4	..
Nervous System—		
Epilepsy	5	..
Chorea	4	..
Other Conditions	11	2
Deformities—		
Rickets	10	..
Spinal Curvature	1	..
Other Forms	4	..
Other Defects or Diseases	99	6
Delicate	100	9
Mentally Defective	5	..
Dull and Backward	2	..

Number of Children Re-Examined	2,434	
Had Treatment	1,753	= 72·02 per cent.
Not had Treatment	681	

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls.	Total.
	(i.) Suitable for training in a School or Class for the totally blind.	Attending Certified Schools or Classes for the Blind....	4	5	9
		Attending Public Elementary Schools	..	..	..
		At other Institutions.....	..	..	..
		At no School or Institution..	..	..	..
	(ii.) Suitable for training in a School or Class for the partially blind.	Attending Certified Schools or Classes for the Blind....	29	40	69
		Attending Public Elementary Schools	4	3	7
		At other Institutions.....	..	..	..
		At no School or Institution..	1	1	2
	(i.) Suitable for training in a School or Class for the totally deaf or deaf and dumb.	Attending Certified Schools or Classes for the Deaf....	17	15	32
		Attending Public Elementary Schools	..	..	..
		At other Institutions.....	..	..	..
		At no School or Institution..	1	..	1
	(ii.) Suitable for training in a School or Class for the partially deaf.	Attending Certified Schools or Classes for the Deaf....	2	..	2
		Attending Public Elementary Schools	2	1	3
		At other Institutions	..	..	..
		At no School or Institution..	1	..	1
	Feeble-minded (cases not notifiable to the Local Control Authority).	Attending Certified Schools for Mentally Defective Children	..	..	..
		Attending Public Elementary Schools	71	69	140
		At other Institutions.....	1	1	2
		At no School or Institution..	24	29	53
	Notified to the Local Control Authority during the year	Feeble-minded	13	6	19
		Imbeciles	4	5	9
		Idiots	..	1	1
	Suffering from Severe Epilepsy.	Attending Certified Special Schools for Epileptics.....	3	1	4
		In Institutions other than Certified Special Schools....	..	..	..
		Attending Public Elementary Schools	..	..	..
		At no School or Institution..	21	12	33
	Suffering from Epilepsy which is not severe.	Attending Public Elementary Schools	20	22	42
		At no School or Institution..	3	3	6

TABLE III.—*Continued.*

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls.
Physically Defective.	Infectious pulmonary and glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	..	
		At other Institutions	..	
		At no School or Institution	1	
	Non-infectious but active pulmonary and glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	..	.
		At Certified Residential Open-Air Schools	..	.
		At Certified Day Open-Air Schools	5	
		At Public Elementary Schools	1	.
		At other Institutions	..	.
		At no School or Institution	13	
	Delicate children (*e.g.*, pre or latent tuberculosis, malnutrition, debility, anæmia, &c.).	At Certified Residential Open-Air Schools	..	.
		At Certified Day Open-Air Schools	19	3
		At Public Elementary Schools	139	15
		At other Institutions	4	
		At no School or Institution	10	1
	Active non-pulmonary tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	1	
		At Public Elementary Schools	2	
		At other Institutions	1	
		At no School or Institution	7	
	Crippled Children (other than those with active tuberculous Disease), *e.g.*, children suffering from paralysis, &c., and including those with severe heart disease.	At Certified Hospital Schools	..	.
		At Certified Residential Cripple Schools	1	.
		At Certified Day Cripple Schools	..	.
		At Public Elementary Schools	62	6
		At other Institutions	..	
		At no School or Institution	24	1

TABLE IIIa.

MENTALLY DEFECTIVE CHILDREN EXAMINED DURING 1923 BY THE MEDICAL OFFICER.

	Boys.	Girls.	Total.
ileptic Idiots	..	1	1
ileptic Imbeciles	1	..	1
oral Imbeciles	..	1	1
beciles	4	3	7
ntally Defectives	39	31	70
ileptic Mentally Defectives	3	..	3
ll and Backward	21	13	34
und Normal	2	1	3
Total	70	50	120

Recommended for	Boys.	Girls.	Total.
ecial Residential School for M.D.'s	11	12	23
ecial Day School for M.D.'s	17	12	29
sident Institution for Imbeciles	5	3	8
sident Institution for Moral Imbeciles	..	1	1
sident Institution for Idiots	..	1	1
sident Institution for Low-grade Feeble-minded	13	7	20
sident School for Epileptic Feeble-minded	1	..	1
ecial Class for Dull and Backward	21	13	34
dinary School	2	1	3
Total	70	50	120

PHYSICALLY DEFECTIVE CHILDREN

(CRIPPLES, EPILEPTICS, &c.).

	Boys.	Girls.	Total.
ilepties	11	19	30
pples	11	1	12
kets	1	1	2
antile Paralysis	3	2	5
miplegia	..	1	1
genital Malformation of Limbs	1	..	1
ctum Incontinence	1	..	1
f-Mute	2	..	2
art	2	..	2
Total	32	24	56

TABLE IIIa.—*Continued.*

Recommended for	Boys.	Girls.	Total
Special Residential School for Epileptics	8	11	19
Special Day School for Cripples	5	3	8
Sanatorium School for Surgical Tubercular Cases	5	..	5
Resident Home with Nursing Facilities	1	..	1
Deaf and Dumb School	2	..	2
Day Open-Air School	1	..	1
Unsuitable for any School	4	1	5
Ordinary School	6	9	15
Total	32	24	56

TABLE IV.

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31ST DECEMBER, 1923.

TREATMENT TABLE.

GROUP I.—MINOR AILMENTS (EXCLUDING UNCLEANLINESS, FOR WHICH S GROUP V.).

Disease or Defect.	Number of Defects Treated under Treatment During the Ye		
	Under the Authority's Scheme.	Otherwise.	Tota
Skin—			
Ringworm, Scalp	120	21	141
,, Body	84	27	111
Scabies	56	7	63
Impetigo	973	111	1084
Other Skin Diseases	678	174	852
Minor Eye Defects ..... (External and other, but excluding cases failing in Group II.).	523	119	642
Minor Ear Defects	514	106	620
Miscellaneous ..... (Minor Injuries, Bruises, Sores, etc.).	483	154	637
Total.....	3431	719	4150

OUP II.—DEFECTIVE VISION AND SQUINT (EXCLUDING MINOR EYE DEFECTS TREATED AS MINOR AILMENTS, GROUP I.).

Defect or Disease.	Number of Defects dealt with.			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme.	Otherwise.	Total.
ors of Refraction (including quint)	1084	..	..	1084
er Defects or Diseases of the es (excluding those recorded Group I.)	208	..	..	208
Total	1292	..	..	1292

al number of children for whom spectacles were prescribed :—

(*a*) Under the Authority's Scheme 812

(*b*) Otherwise ..... —

al number of children who obtained or received spectacles :—

(*a*) Under the Authority's Scheme 749

(*b*) Otherwise ..... —

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

Received Operative Treatment.			Received other Forms of Treatment.	Total Number Treated.
nder the thority's heme in linic or Hospital.	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Total.		
210	94	304	225	529

GROUP IV.—DENTAL DEFECTS.

	Number of Children.
(1) Number of children who were :—	
(*a*) Inspected by the Dentist :	
Aged :	
Routine Age Groups, 5 years	—
6 ,,	1,238
7 ,,	1,423
8 ,,	1,617
9 ,,	4,606
10 ,,	—
11 ,,	—
12 ,,	—
13 ,,	—
14 ,,	—
Specials	
Grand Total	
(*b*) Found to require treatment	
(*c*) Actually treated	
(*d*) Re-treated during the year as the result of periodical examination (included under (*c*) above)	
(2) Half-days devoted to (*a*) Inspection	146
(*b*) Treatment	614
(3) Attendances made by children for treatment	
(4) Fillings (*a*) Permanent Teeth	2,802
(*b*) Temporary Teeth	—
(5) Extractions (*a*) Permanent Teeth	443
(*b*) Temporary Teeth	5,359
(6) Administrations of local anæsthetics for extractions	
(7) Other operations (*a*) Permanent Teeth	999
(*b*) Temporary Teeth	35

GROUP V.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i.) Average number of visits per school made during the year by the School Nurses

(ii.) Total number of examinations of children in the Schools by the School Nurses

(iii.) Number of individual children found unclean

(iv.) Number of children cleansed under arrangements made by the Local Education Authority

(v.) Number of cases in which legal proceedings were taken :—

(*a*) Under the Education Act, 1921

(*b*) Under School Attendance Byelaws

Results of Treatment of Defects of Children Discharged from Clinics during 1923.

Defects or Diseases.	Remedied.	Improved.	No change or no report.	Total.	Percentage remedied.
utrition	2	..	..	2	100·00
eanliness, head	46	..	..	46	100·00
„ body	7	1	..	8	87·50
Ringworm, head	155	..	2	157	98·73
„ body	116	..	..	116	100·00
Scabies	97	..	..	97	100·00
Impetigo	1111	3	6	1120	99·20
Other Diseases—					
(Non-Tubercular)	838	4	6	848	98·82
Blepharitis	126	8	5	139	90·65
Conjunctivitis	308	6	8	322	95·65
Keratitis	20	5	2	27	74·08
Corneal Ulcer	19	2	1	22	86·36
Corneal Opacities	3	1	..	4	75·00
Defective Vision	46	1	23	70	65·71
Squint	10	5	5	20	50·00
Other Conditions	37	3	1	41	90·24
Defective Hearing	156	9	11	176	88·64
Otitis Media	343	16	26	385	89·09
Other Ear Diseases	32	1	2	35	91·43
and Throat—					
Enlarged Tonsils	215	8	49	272	79·04
Adenoids	141	3	13	157	89·81
Enlarged Tonsils and Adenoids	99	5	24	128	77·34
Other Conditions	138	6	4	148	93·24
ged Cervical Glands—					
Non-Tubercular)	133	11	13	157	84·71
tive Speech	5	4	..	9	55·56
h—Dental Disease	48	..	60	108	44·44
and Circulation—					
Heart Disease, Organic	..	47	22	69	..
„ Functional	30	7	3	40	75·00
næmia	148	30	8	186	79·57

These figures include cases coming under the notice of the School Doctors e Inspection Clinic, and do not include the great bulk of cases treated at the halmic and Dental Clinics.

RESULTS OF TREATMENT OF DEFECTS OF CHILDREN DISCHARGE FROM CLINICS DURING 1923—*Continued.*

Defects or Diseases.	Remedied.	Improved.	No change or no report.	Total.	Perc rem
Lungs—					
Bronchitis	221	19	10	250	88
Other Non-Tubercular Diseases	78	7	1	86	90
Tuberculosis—					
Pulmonary, Definite	2	4	..	6	33
,, Suspected	82	3	5	90	91
Non-Pulmonary, Glands	24	5	1	30	80
,, Spine	..	1	..	1	.
,, Hip	..	1	..	1	.
,, Other Bones and Joints	2	3	1	6	33
,, Skin	..	..	..	..	.
,, Other Forms	14	..	3	17	82
Nervous System—					
Epilepsy	13	..	1	14	92
Chorea	75	9	4	88	85
Other Conditions	16	5	4	25	64
Deformities—					
Rickets	4	6	4	14	28
Spinal Curvature	..	..	1	1	.
Other Forms	7	9	3	19	36
Other Defects or Diseases	463	36	34	533	86
Delicate	253	39	30	322	78
Mentally Defective	..	1	..	1	.
Dull and Backward	..	..	..	..	.
Total	5683	334	396	6413	88

TABLE V.

SUMMARY OF TREATMENT OF DEFECTS SHOWN IN TABLE IV.

(GROUPS I., II., III., AND IV.)

Disease or Defect.	Number of children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise.	Total.
r Ailments	4383	3431	719	4150
al Defects	1392	1292	..	1292
cts of Nose and Throat.	1017	210	319	529
al Defects	7326	3495	..	3495
r Defects	5092	1480	..	1480
Total	19210	9908	1038	10946

TABLE VI.

SUMMARY RELATING TO CHILDREN MEDICALLY INSPECTED AT TH
ROUTINE INSPECTIONS DURING THE YEAR 1923.

(1) The total number of children medically inspected at the routine inspections	110
(2) The number of children in (1) suffering from—	
Malnutrition	
Skin Disease	1
Defective Vision (including Squint)	8
Eye Disease	
Defective Hearing	
Ear Disease	1
Nose and Throat Disease	4
Enlarged Cervical Glands (non-tubercular)	
Defective Speech	
Dental Disease	8
Heart Disease—	
Organic	
Functional	
Anæmia	
Lung Disease (non-tubercular)	1
Tuberculosis—	
Pulmonary, Definite	
,, Suspected	4
Non-pulmonary	
Disease of the Nervous System	
Deformities	
Other Defects and Diseases	2
(3) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	4
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, &c.)	24
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, &c.)	16

TABLE Ia.

NUMBER OF CHILDREN IN SECONDARY SCHOOLS INSPECTED DURING 1923.

A.—ROUTINE MEDICAL INSPECTION.

	Prepara tory.	Entrants.		Intermediates.		Leavers.		Totals.
		12	13	14	15	16	17	
...'s	..	87	126	162	89	12	11	487
...s	203	190	221	223	90	60	38	1025
...otals ...	203	277	347	385	179	72	49	1512

B.—SPECIAL INSPECTIONS.

	Special Cases.	Re-examinations (*i.e.*, No. of Children re-examined).
...s	..	..
...s	..	281
...Totals	..	281

...—TOTAL NUMBER OF INDIVIDUAL CHILDREN INSPECTED BY THE MEDICAL OFFICER WHETHER AS ROUTINE OR SPECIAL CASES.

(No child to be counted more than once in a year.)

...nber of Individual Children Inspected 1512

TABLE IIa.

A.—Routine Inspection of Secondary Schools.

Defects or Diseases.	No. referred for Treatment.	No. requiring t be kept unde observation.
Malnutrition	..	..
Uncleanliness, head	103	..
body	1	..
Skin—		
Ringworm, head	..	..
,, body	1	..
Scabies	..	..
Impetigo	1	..
Other Diseases (Non-Tubercular)	28	9
Eye—		
Blepharitis	7	..
Conjunctivitis	3	..
Keratitis	..	..
Corneal Ulcer	..	..
Corneal Opacities	..	1
Defective Vision	131	294
Squint	2	14
Other Conditions	2	2
Ear—		
Defective Hearing	11	1
Otitis Media	11	1
Other Ear Diseases	..	..
Nose and Throat—		
Enlarged Tonsils	23	124
Adenoids	12	8
Enlarged Tonsils and Adenoids	26	13
Other Conditions	4	1
Enlarged Cervical Glands (Non-Tubercular)	2	34
Defective Speech	1	4
Teeth—Dental Disease	228	..
Heart and Circulation—		
Heart Disease, Organic	7	9
,, ,, Functional	1	12
Anæmia	27	33
Lungs—		
Bronchitis	12	3
Other Non-Tubercular Diseases	1	1

TABLE IIa.—*Continued.*

Defects or Diseases.	No. referred for Treatment.	No. requiring to be kept under observation.
rculosis—		
Pulmonary, Definite	1	..
„ Suspected	2	6
Non-Pulmonary, Glands	4	3
Spine	..	1
„ Hip	..	..
„ Other Bones and Joints.	1	..
„ Skin	..	..
„ Other Forms	..	..
ous System—		
Epilepsy	..	..
Chorea	..	1
Other Conditions	7	9
mities—		
Rickets	3	..
pinal Curvature	29	11
Other Forms	19	10
Defects or Diseases	33	31
te	..	1
lly Defective	..	..
nd Backward	..	2
Children Examined	1512	..
f Individual Children having Defects hich required treatment or to be kept nder Observation	604	359

TABLE IIa.—*Continued.*

B.—Details of Re-Examination of Children in Secondary Schools.

Defects or Diseases.	Had Treatment.	Not h Treatm
Malnutrition	..	..
Uncleanliness, head	72	..
,, body	1	..
Skin—		
Ringworm, head	..	..
,, body	..	..
Scabies	..	..
Impetigo	..	..
Other Diseases (Non-Tubercular)	6	..
Eye—		
Blepharitis	..	..
Conjunctivitis	..	..
Keratitis	..	..
Corneal Ulcer	..	..
Corneal Opacities	..	..
Defective Vision	42	11
Squint	..	..
Other Conditions	..	..
Ear—		
Defective Hearing	..	..
Otitis Media	1	..
Other Ear Disease	..	..
Nose and Throat—		
Enlarged Tonsils	3	..
Adenoids	3	1
Enlarged Tonsils and Adenoids	5	6
Other Conditions	..	..
Enlarged Cervical Glands (Non-Tubercular)	..	1
Teeth—		
Dental Disease	28	19
Heart and Circulation—		
Heart Disease, Organic	1	2
,, Functional	..	..
Anæmia	8	3
Lungs—		
Tuberculosis, Suspected	..	..
Bronchitis	1	..
Other Non-Tubercular Diseases	..	..
Tuberculosis (Non-Pulmonary)—		
Glands	1	..
Nervous System—		
Epilepsy	..	..
Chorea	..	..
Other Conditions	..	..
Deformities—		
Rickets	1	..
Spinal Curvature	23	..
Other Forms	7	3
Other Defects or Diseases	16	6

Number of Children Re-Examined	3
,, Defects had Treatment	3
,, ,, not had Treatment	

TABLE IIIa.

ABLE SHOWING PREVALENCE OF PEDICULOSIS IN SECONDARY SCHOOLS WHERE ALL THE PUPILS PRESENT WERE EXAMINED.

	BOYS.					GIRLS.				
	No. Examined.	Heads.			Verminous bodies.	No. Examined.	Heads.			Verminous bodies.
		A.	B.	C.			A.	B.	C.	
(A) regate mbers..	487	466	21	—	—	1,025	943	82	—	1
(B) entages..	—	95·69	4·31	—	—	—	92·00	8·00	—	—

TABLE S I.

ILDREN EXAMINED AT THE INSPECTION CENTRES BY THE MEDICAL INSPECTORS.

	Boys.	Girls.	Total.
New Cases	3661	3665	7326
Re-examinations	5679	5643	11322
Total Examinations	9340	9308	18648

CHILDREN EXAMINED BY THE EYE SPECIALIST.

	Boys.	Girls.	Total.
Number examined	597	487	1084
Spectacles prescribed for	404	408	812
,, supplied	354	395	749

TABLE S Ib.

MEDICAL EXAMINATION OF TEACHERS, ETC.

Teachers	3
Student Teachers	4
Exhibitioners	24
Bursars	32
Pupil Teachers	21
Entrants to Secondary Schools	627
Other Special Examinations	164

TABLE 8 IIa.

CLASSIFICATION OF SPECIAL CASES

EXAMINED BY THE MEDICAL INSPECTORS, AT THE INSPECTION CENT

DURING THE YEAR 1923.

	Boys.		Girls.		T
	1st Exam.	Re-examined.	1st Exam.	Re-examined.	Exa ti
Number of cases examined.....	3661	5679	3665	5643	18
Malnutrition	12	29	15	39	
Cleanliness, head	5	6	40	54	
,, body..... ..	3	4	4	1	
Skin—					
Ringworm, head	90	207	78	179	
,, body	58	86	58	85	
Impetigo.....	623	798	494	591	25
Scabies	30	21	38	23	1
Alopecia	99	297	62	166	6
Other Diseases	399	538	317	421	16
Eye—					
Defective Vision and Squint ..	54	48	60	40	2
External Eye Disease	337	807	313	904	23
Ear—					
Defective Hearing	98	135	100	80	4
Ear Disease	312	955	285	982	25
Teeth—					
Dental Disease	109	60	85	53	3
Nose and Throat—					
Enlarged Tonsils	164	110	210	119	6
Adenoids	117	93	95	98	4
Enlarged Tonsils and Adenoids	88	57	102	65	3
Tonsilitis	10	8	28	46	
Rhinitis	..	3	4	4	
Other Diseases	52	120	80	118	3
Defective Speech	14	12	7	6	

TABLE S IIa.—*Continued.*

CLASSIFICATION OF SPECIAL CASES—*Continued.*

	Boys.		Girls.		Total Examinations.
	1st Exam.	Re-examined.	1st Exam.	Re-examined.	
art and Circulation—					
Organic Disease	81	135	113	196	525
Functional Disease	25	39	38	44	146
Anæmia	147	308	192	379	1026
ngs—					
Pulmonary Tuberculosis { Definite	51	61	56	41	209
Pulmonary Tuberculosis { Suspected	167	171	148	152	638
Chronic Bronchitis	216	393	180	295	1084
Other Disease	58	100	79	114	351
rvous System—					
Epilepsy	16	20	20	23	79
Chorea	58	161	92	223	534
Mentally Defective	6	3	6	3	18
Other Disease	17	35	31	43	126
n-Pulmonary Tuberculosis—					
Glands	23	61	26	53	163
Bones and Joints	6	5	3	..	14
Other Forms	18	55	15	30	118
larged Cervical Glands (Non-Tubercular)	111	180	95	194	580
icate	265	488	282	566	1601
kets	21	32	12	22	87
ormities	21	32	20	16	87
ier Defects or Diseases	323	412	359	505	1599
l and Backward	6	1	4	1	12
cess	43	90	34	85	252
for School	6907	..	6497	..	13404

TABLE S IIIa.

BLIND, DEAF, AND DEFECTIVE CHILDREN.

NEW CASES SENT TO SPECIAL SCHOOLS DURING 1923.

	Boys.	Girls.	Total
To Residential Blind School	..	2	2
,, Royal Residential School for the Deaf	1	..	1
,, South Bank School for Partially Blind	10	12	22
,, Other Special Schools	*2	1	3
TOTALS	13	15	28

* Includes a case transferred from another authority.

TABLE S IIIb.

TOTAL NUMBER OF CHILDREN MAINTAINED IN INSTITUTIONS, AT THE PART COST OF THE COUNCIL, AS AT SEPTEMBER 30TH, 1923.

Name of Institution.	Boys.	Girls.	Total.
nshaw's Institution for the Blind, Manchester..	2	5	7
holic Blind Asylum, Liverpool	1	..	1
mes for the Blind, Fulwood, Preston	1	..	1
yal Residential Schools for the Deaf, Manchester.	13	12	25
John's Institution for the Deaf and Dumb, Boston Spa	4	3	-
s Moss Epileptic Colony School	2	..	2
rnthwaite Epileptic Home	1	..	1
ne for Epileptics, Maghull	..	1	1
dlebridge School for Feeble-minded	1	..	.
tville School for Mentally Defectives, Ormskirk.	1	..	1
ool for Mentally Defectives, Pield Heath, Hillingdon, Middlesex	..	1	1
ngate Dispensary (Grimké Ward)	12	9	21
therwood Hospital, Ascot	1	1	2
TOTALS	39	32	71

TABLE S V.

INSPECTION, TREATMENT, ETC., OF CHILDREN DURING 1923.

(1) The total number of children medically inspected (whether Code Group, special or ailing child)	18,3
(2) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	1,29
(3) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, &c.)	7,27
(4) The number of children in (3) who received treatment for one or more defects (excluding uncleanliness, defective clothing, &c.)	6,35

SECTION V.

VETERINARY INSPECTOR'S REPORT

Diseases of Animals Acts.

Parasitic Mange.

During the year three outbreaks were dealt with.

Out of a total number of fifty-two horses on the infected premises, only six were affected with the disease. Two of these animals were slaughtered by the owners; the remainder recovered under treatment.

All the cases were notified by the owners or veterinary surgeons.

Disinfection of the stables, harness, etc., was carried out, and the disease has not recurred in any of these stables.

Swine Fever.

Swine Fever was discovered in a consignment of live pigs received from Bury by a firm of pig salesmen; seventy-three pigs were inspected and eight were found to be diseased.

The Ministry of Agriculture and the Bury Local Authority were notified.

The diseased carcases and offals were destroyed an the slaughterhouses disinfected.

The owner of the swine was summoned at the Bur County Police Court on the 26th February, 1923, and fine of £15 imposed for failing to report the existence o disease.

Anthrax.

Two cases of suspected anthrax were reported b owners of animals which had died suddenly. Micro scopical examination of the blood was made in each case and as no evidence of the disease was found, no furthe action was necessary.

Rabies.

The Police detained one dog which had shown symptom suspicious of rabies, but on examination no signs o rabies were found, and the animal was returned to th owner.

Glanders.

A Veterinary Surgeon reported that a horse under hi care showed some evidence of glanders.

The animal was examined very carefuly and tested wit mallein.

The evidence thus obtained was negative, and th Veterinary Surgeon and owner were notified to this effect

Animals (Transit and General) Order, 1895. Railway and Cattle Docks.

Frequent visits are made during each week to observ whether the requirements of this Order are carried out

The numbers of animals received into the Borough and forwarded out of the Borough during the past year are as follows :—

FORWARDED OUT OF THE BOROUGH.

Cattle,	Sheep,	Pigs,	Calves,	Horses,	Other Animals.
31,432.	183,067	24,587.	7.	551	90.

RECEIVED INTO THE BOROUGH.

Cattle,	Sheep,	Pigs,	Calves,	Horses,	Other Animals,
90,379.	489,216.	51562.	2572,.	674.	16.

Special attention and supervision over the cleansing and disinfection of all cattle waggons has been given, owing to the prevalence throughout the year of Foot and Mouth Disease.

Foot and Mouth Disease.

No outbreaks of this disease occurred in the Borough.

During the latter part of the year this district was affected by outbreaks in the vicinity, and all movements of animals were subject to licence under various Orders.

On 17th September, owing to disease in the Styal district of Cheshire, Salford was included in a Controlled Area, and these restrictions were in operation until the 25th September.

Again, on 13th October, an outbreak in the vicinity of Wigan caused the imposition of restrictions until the 23rd October.

On the 7th November the Ministry of Agriculture asked for all Irish animals to be specially examined and placed under detention.

On the 22nd November a Foot and Mouth Disease Order came into operation, and this Order was operative well into 1924.

The cattle traders using the Salford Cattle Market were on several occasions placed in circumstances of great difficulty, having animals which they were unable to sell and special concessions were obtained for them from the Ministry.

Foreign Animals Order, 1910.

Information was received that a vessel had brought into the Port of Salford a pig from a prohibited country.

The vessel was visited and arrangements made for the detention of all animals on board and for all litter, manure, etc., to be destroyed on the ship.

The master of the vessel was summoned and a fine of ten shillings was imposed at the Borough Police Court.

Cattle Market.

The Market has been visited and inspected each market day throughout the year, the number of animals exhibited for sale being :—

Cattle	55,385
Sheep	333,886
Dairy Cows.....	2,824
Calves	24
Total.....	392,119

Meat and Food Inspection.

Slaughterhouses.

There are eight private slaughterhouses in the Borough, ven being licenced annually and one a continuing licence.

Three of these are solely for the slaughtering of pigs, d have been in use continuously throughout the year; the remaining five slaughterhouses four have been in ular use.

The number of slaughterhouses in the Borough on the dermentioned dates was as follows:—

	In 1914.	In Jan., 1923.	In Dec., 1923.
ntinuing Licence ..	1	1	1*
nual.....	15	9	7

The private slaughterhouses are generally kept in a un condition.

The number of visits made to these premises and the nber of carcases inspected during the year are as ows:—

Number of visits, 1,999.

Carcases Inspected.

Cattle	2,089
Sheep	7,403
Pigs	9,015
Calves	19
Dressed Pigs	4,000
Total.....	22,526

*(Under Section 116 Salford Corporation Act, of 1865).

In addition to the private slaughterhouses there a
five public slaughtering booths at the Cattle Market
one of these has been used for the slaughter of horse
only. Daily visits are made to these premises. Th
number of animals slaughtered during the year was :-

Cattle	390
Sheep	1,493
Pigs	25
Calves	79
Horses	546

INSPECTION AND OF UNSOUND FOOD SURRENDERED BY THE OWNERS THEREOF.

Month.	Seizures.	Beef.	Mutton.	Pork.	Veal.	Goat Flesh.	Bacon.	Brawn.	Tinned Fruit and Sardines.	Tinned Milk.	Total.
		Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Tins.	
January	105	1946	968	2112	..	..	..	..	..	..	5026
February	122	2037	1495	3949	..	..	..	..	..	..	7481
March	104	1614	1820	1611	..	..	..	..	..	..	5045
April	74	2339	626	1429	..	..	..	10	..	..	4404
May	59	1845	216	1362	..	..	..	..	..	..	3423
June	74	77	455	3170	..	..	..	..	..	..	3702
July	79	802	371	2549	..	..	..	..	..	..	3722
August	69	1184	323	1256	..	30	2352	..	..	..	5145
September	93	1982	219	1664	56	..	..	..	5264	180	9215 & 180 tins
October	104	2101	668	2072	50		..	..	..	..	4831
November	58	660	512	860	..	..	..	..	..	..	2032
December	140	1455	..	8887	..	..	..	..	..	..	10342
	1081	18042	7643	30921	106	30	2352	10	5264	180	64368 & 180 tins

UNSOUND FOOD.—TABLE SHOWING PLACE OF SEIZURE.

Premises.	Beef.	Mutton.	Pork.	Veal.	Goat Flesh.	Bacon.	Brawn.	Tinned Fruit and Sardines.	Tinned Milk.	No. of Seizures.	Total.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Tins.		Lbs.
Public Slaughterhouse.....	14202	7508	..	50	30	..	..	..	..	260	21790
Private Slaughterhouse.....	3830	100	25663	..	..	..	..	..	..	766	29593
Warehouse	..	..	..	..	..	2352	..	..	..	9	2352
Retail Shop.....	10	..	60	56	..	..	..	5264	180	7	5390 & 180 tins
Food Preparing Premises....	..	..	68	..	..	..	10	..	..	6	78
Railway Sidings.....	..	35	5130	..	..	..	..	..	..	33	5165
	18042	7643	30921	106	30	2352	10	5264	180	10	64368 & 180 tins

nsound Food Condemned for the Following Causes.

No. of Seizures.	Cause of Seizure.	Weight in lbs.
674	Tuberculosis	23,613
233	Asphyxia	18,263
78	Decomposition	13,354 & 180 tins.
23	Swine Fever	2,130
13	Pleurisy and Peritonitis	1,702
11	Parasitic	91
10	Emaciation and Dropsy	2,310
9	Cirrhosis	74
7	Injury	138
6	Abscess	115
5	Pleurisy	389
4	Septicæmia and Pyæmia.	1,184
3	Fevered	740
3	Actinomycosis	45
2	Jaundice	220
1,081		64,368 & 180 tins

Tuberculosis in Meat.

The following table is a summary of the various pes of animals in which Tuberculosis was found :—

Description.	Total No. of Seizures.	Whole Carcases and Organs	Parts of Carcases (including head) and Organs	Organs Only.
.....	25	8	8	9
rs	28	1	24	3
cks	15	1	12	2
.....	606	61	500	45
Total	674	71	544	59

The following table shows the percentage of Pigs fou to be affected with Tuberculosis during routine inspecti of carcases since 1911 :—

Year.	Number Inspected.	Diseased.	Percentag
1911.....	3,559	81	2·3
1912.....	2,628	48	1·8
1913.....	2,778	118	4·2
1914.....	4,046	211	5·2
1915.....	4,681	190	4·0
1916.....	8,121	252	3·1
1917.....	7,475	209	2·8
1918.....	3,430	51	1·5
1919.....	6,075	171	2·8
1920.....	6,925	260	3·75
1921.....	11,111	512	4·6
1922.....	14,809	824	5·5
1923.....	13,015	606	4·6

Inspection of Premises where Food is Prepared

Since the last Annual Report, Byelaws have be obtained providing for the general supervision of any pla where cooked or prepared food intended for hum consumption is manufactured, prepared or stored.

A systematic inspection is being made of all su premises throughout the Borough and a considera

improvement has already been effected as regards the cleanliness and sanitary conditions; and during next year all shops concerned will have been visited and made to comply with the Byelaws.

Conveyance of Food through Streets.

Byelaws have also been sanctioned by the Ministry of Health, providing for the cleanliness of carts and covers when conveying food through the streets, the expression "food" means meat, poultry, game, flesh or fish intended for the food of man.

Dairy Inspection

There are five cowkeepers in the Borough who have 11 shippons, with accommodation for 140 cows.

The number of cows kept averaged 80.

Forty-two inspections of these premises were made during the year, the total number of cows examined being 545.

No diseased cows were discovered in cowsheds in the Borough.

Dairies and Milkshops.

There are 800 dairies and milkshops in the Borough, these include both wholesale and retail premises.

Seven hundred and twenty-four inspections of these premises have been made during the year.

Tuberculous Milk.

During the year 1923, 278 samples of milk direct from farms were obtained at railway stations or dairies and submitted to the Public Health Laboratory for examination for the presence of tubercle bacilli.

Twenty-four of these samples were reported to contain tubercle bacilli, this being a percentage of 8·63.

The following table shows the District and number of samples obtained and the percentage of tuberculous milk:—

District.	Number of samples obtained and submitted for examination.	Number of samples found to contain Tubercle Bacilli.	Per cent Tuberculosis
Cheshire	123	17	13·82
Lancashire	94	5	5·32
Yorkshire	21	1	4·76
Staffordshire	7	..	..
Derbyshire	31	..	..
Scotland	1	..	..
Wales	1	1	100·00
Total	278	24	8·63

The percentage of tuberculous samples taken during 1923, and for previous years, is as follows:—

1914.	1915.	1919.	1920.	1921.	1922.	1923
6·6	5·26	8·3	7·2	6·7	5·08	8·63

Twenty-three of the farms were visited from which the tuberculous milk was supplied, and a total number of 484 cows examined.

Seventeen cows were found on 16 farms to be affected with tuberculosis of the udder, the clinical diagnosis being confirmed by bacteriological examination of the milk from the diseased cows. The affected cows were all slaughtered with the exception of one case, in which the farmer ceased supplying milk to Salford.

On seven farms no diseased cows were discovered.

The remaining sample of tuberculous milk was originally obtained from five cans from a collecting depôt. The farms supplying this milk were later sampled in groups, in every case these milks proved after bacteriological examination to be free from tubercle bacilli.

The question of dealing with tuberculous milk is rather uncertain, as is shown by the fact that out of 23 farms there were seven cases of cows having been removed prior to the farm being visited.

There was nothing to show how long these diseased cows had been supplying tuberculous milk as a farmer's milk is only sampled yearly. A farm may be sampled and the milk may prove free from tubercle bacilli but the same farm three months later may be supplying tuberculous milk.

Milk (Special Designations) Order and Dairies, Cowsheds and Milkshops Order.

One firm has obtained a licence to retail "certified" milk.

This milk is produced in Westmorland from catt which have been proved free from tuberculosis by mea of the "tuberculin test." The milk is bottled on the far and sent daily in sealed bottles.

This, of course, is the ideal method but, unfortunatel owing to the high cost, the consumption of this mi is very small.

The Ministry of Health standard for this milk is follows :—

Not more than 30,000 bacteria per c.c.

No coliform bacilli in 1/10th c.c.

Pasteurised Milk.

One firm has been licenced to produce pasteuris milk in the Borough, the procedure adopted being follows :—

The milk is poured from the farmers' tankards (received at the railway stations) into a tank, from th it is pumped into a centrifugal milk cleaner which remov solid contamination, *e.g.*, dirt, hair, etc.

The milk is then pumped into a continuous flow m heater and is raised to a temperature of 150° deg. Fa thence into the pasteuriser.

This is a large revolving tank, insulated and divided into six separate compartments. As it rotates, each compartment is filled with the heated milk, which is retained for a period of thirty minutes, until the compartment arrives at the point of discharge.

After discharge, the milk is cooled to a temperature of 40 deg. to 50 deg. Fah., and is then bottled and the bottle sealed with a disc.

There are also two firms producing pasteurised milk outside the Borough, who have been granted supplementary licences, although these firms have obtained licences to sell this milk there is none being sold in the Borough as pasteurised milk, although much of the milk sold has actually been treated in some manner.

There is no obligation on the part of the dairyman or milk retailer to inform the public whether the milk he is retailing has been treated by any process or to state what processes his milk has undergone in order to prolong its life or whether it is milk direct from the cow.

The Ministry of Health standard is as follows:—

The milk must not contain more than 200,000 bacteria per cubic centimetre.

Sterilized Milk.

Not included in the Milk (Special Designations) Order, 1922.

A considerable trade has grown up in the sale of sterilised milk in hermetically sealed bottles. This milk

is sold at the same price as fresh or commercially pasteurised milk.

Sterilised milk is undoubtedly a convenience to the public as it keeps much better than ordinary milk. Some firms have had difficulty in the sterilisation of milk owing to the milk in some cases turning thick in the bottles.

The milk has to be fresh when sterilised, otherwise it will not stand the process and will thicken, it is usually clarified and hormogenized before sterilisation, in order to produce an attractive article for sale.

A certain number of dairymen have installed milk cleaners under the impression that this is a desirable process.

It must be pointed out that these machines remove the visible dirt, but they do not reduce to any appreciable degree the number of bacteria present in the milk. Obviously, the only correct method is to prevent dirt with its associated bacteria from entering the milk during the process of milking and subsequent handling, that this is possible, is proved by the fact that producers of "Grade A" and "certified" milk can produce milk with a low bacterial count.

SECTION VI.

BOROUGH ANALYST'S REPORT.

TO THE HEALTH COMMITTEE.

GENTLEMEN,

I have the honour to present my Annual Report on the work carried out in the Borough Laboratories during the year 1923.

During the year, 1,591 samples have been submitted to me for analysis. Of these, 1,388 were taken in connection with the Sale of Food and Drugs Act, whilst 203* were submitted by various Corporation Departments; the number of miscellaneous samples being more than doubled, as compared with many previous years.

Of the 1,388 samples taken under the sale of Food and Drugs Acts, 96, or 6·9 per cent, were returned as adulterated. This figure is not quite so good as that for last year, when 5·6 per cent of the samples were found to be adulterated, but is considerably better than that for 1921, when the proportion was 8·7.

During the year several important investigations have been made; full particulars of these and of all other samples are given in the body of the report.

I have the honour to be, Gentlemen,
Your obedient servant,
G. D. ELSDON,
Borough Analyst.

Municipal Laboratories,
143, Regent Road, Salford.
19*th February*, 1923.

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* 36 of these were in connection with atmospheric pollution.

SALFORD BOROUGH ANALYST'S REPORT.

1. Samples taken under the Sale of Food and Drugs Act.

The total number of Foods and Drugs examined during the year was 1,388. The following table gives complete details concerning the various articles examined :—

TABLE 1.

SAMPLES.	Total Number Examined.	Number Adulterated.		Percentage of Adulteration
		Preservatives Only.	Other ways.	
Milk	779	2	40	5·4
Butter	53	..	..	..
Margarine	43	..	..	..
Margarine blended with Butter	9	..	9	100·0
Lard	22	..	..	..
Beef Suet	2	..	..	..
Cheese	15	..	..	..
Cream Cheese	8	..	4	50·0
Dripping	1	..	..	..
Dried Milk	1	..	..	..
Baking Powder	8	..	..	..
Custard Powder	7	..	..	..
Egg Substitute	3	..	..	..
Corn Flour	3	..	..	..
Rolled Oats	2	..	..	..
Sago	4	..	..	..
Rice	7	..	..	..
Ground Rice	5	..	..	..
Barley	5	..	..	..
Tapioca	6	..	..	..
Tea	1	..	..	..
Coffee	8	..	..	..
Chicory	2	..	..	..
Cocoa	34	..	..	..
Sugar	1	..	..	..
Ground Ginger	6	..	..	..
Pepper	3	..	..	..
Mustard	3	..	..	..
Salt	4	..	..	..
Syrup	32	..	10	31·3

TABLE 1—*Continued.*

SAMPLES	Total Number Examined.	Number Adulterated.		Percentage of Adulteration.
		Preservatives Only.	Other ways.	
lucose Syrup	2	..	..	..
lack Treacle	4	..	..	..
nocolate	10	..	..	..
offee	2	..	..	..
ake	1	..	..	..
nned Goods	16	..	..	..
ams	38	..	16	42·1
incemeat	9	..	..	..
tron Peel	11	..	..	..
oracic Powder	1	..	..	..
arbonate of Potash	6	..	..	..
ercury Pills	2	..	..	..
loes	4	..	..	..
yrrh	1	..	..	..
loes and Myrrh Pills	1	..	..	..
loes and Iron Pills	1	..	..	..
loes Pills	1	..	..	..
ompound Powder of Cinnamon	1	..	..	..
nnamon	6	..	..	..
ardamom Seeds	3	..	..	..
eidlitz Powders	4	..	..	..
psom Salts	15	..	..	..
lauber Salts	9	..	..	..
orax	7	..	..	..
live Oil	4	..	..	..
luid Magnesia	2	..	..	..
al Volatile	5	..	..	..
lycerine of boric acid	7	..	1	14·3
arbolic Ointment	1	..	..	..
odide of Potash	16	..	2	12·5
ried Peas	7	..	..	..
od Liver Oil Emulsion	4	..	..	..
xtract of Meat	1	..	..	..
xtract of Malt	2	..	..	..
eef and Malt Wine	13	..	6	46·1
ime Juice and Lemon Squash Cordials	2	..	..	..
in	3	..	..	..
um	3	..	..	..
ines	9	..	..	..
hiskey	21	..	..	..
rescriptions	56	..	6	10·7
	1388	2	94	6·9

The total number of samples, 1,388, is slightly lower than that for last year, when 1,452 samples were examined. This diminution is explained by the fact that many of the samples required far more attention than those taken in previous years. The diminution, however, is slight, and the number taken represents a greater number per thousand of the population than most other local authorities. Of the total samples, 96, or 6·9 per cent, were returned as adulterated. Comparative figures for adulteration in previous years are given in Table 2.

TABLE 2.

COMPARATIVE PERCENTAGE OF ADULTERATION.

	1915	1916	1917	1918	1919	1920	1921	1922	19
Percentage of Adulteration . .	2·8	5·8	1·2	4·0	8·8	6·3	8·7	5·6	6·
Total Samples	1,174	1,202	1,385	1,237	1,234	1,410	1,364	1,452	1,3
Formal Samples . .	397	352	433	858	657	807	623	653	6
Informal Samples .	777	850	952	379	577	603	741	799	7
No. of Samples per 100,000 persons	499	561	648	591	546	599	570	607	5

Milk.

Seven hundred and seventy-nine samples of milk have been examined during the year, of which 42, or 5·4 per cent, have been returned as adulterated.

The average composition of milks taken during the year will be found in Tables 4, 5 and 6. The average composition of the whole of the milk is given in Table 4. Table 5 gives the composition of the

Station Milk, *i.e.*, the milk delivered by farmers, whilst Table 6 gives the composition of milk delivered in the Borough by retailers

This number included nineteen samples taken at Ladywell Sanatorium, thirty-nine taken at Hope Hospital and two taken at the Open Air School; all these milks were of good average quality.

TABLE 3.

ADULTERATION OF MILK.

	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
mber of samples	355	351	435	386	539	865	829	981	899	923	779
rcentage of adulteration .	3·4	3·1	4·8	10·1	2·4	3·1	7·1	7·2	8·9	5·3	5·4

TABLE 4.

AVERAGE COMPOSITION OF ALL MILKS, 1923.

Month.	Number of Samples.	Total Solids per cent.		Fat per cent.		Solids-not-fat per cent.	
nuary	94	12·31	12·37	3·42	3·48	8·89	8·89
bruary	70		12·18		3·36		8·82
rch	70		12·35		3·40		8·95
ril	90	12·38	12·38	3·51	3·52	8·87	8·86
y	58		12·31		3·53		8·78
ne	77		12·45		3·49		8·96
y	27	12·59	12·42	3·70	3·55	8·89	8·87
gust	46		12·44		3·66		8·78
tember	66		12·75		3·78		8·97
ober	68	12·99	12·98	3·92	3·97	9·07	9·09
vember.....	69		13·17		4·02		9·15
cember	44		12·72		3·67		9·05
TOTAL	779	12·54		3·62		8·92	

TABLE 5.

AVERAGE COMPOSITION OF STATION MILKS, 1923.

Month.	Number of Samples.	Total Solids per cent.		Fat per cent.		Solids-not-fa per cent.	
January	50	12·08	12·19	3·24	3·35	8·84	8·84
February	20		11·53		2·83		8·70
March	34		12·25		3·31		8·94
April	46	12·27	12·27	3·48	3·45	8·79	8·82
May	6		11·67		3·42		8·25
June	7		12·77		3·74		9·03
July	13	12·41	12·66	3·65	3·76	8·76	8·90
August	23		12·22		3·57		8·65
September	2		13·05		3·80		9·25
October	10	13·19	13·15	4·07	4·18	9·12	8·97
November.....	14		13·41		4·20		9·21
December	12		12·95		3·83		9·12
TOTAL	237	12·35		3·49		8·86	

TABLE 6.

AVERAGE COMPOSITION OF MILKS OTHER THAN STATION MILKS, 192

Month.	Number of Samples.	Total Solids per cent.		Fat per cent.		Solids-not-f per cent.	
January	44	12·49	12·59	3·57	3·64	8·92	8·95
February	50		12·44		3·57		8·87
March	36		12·44		3·48		8·96
April	44	12·42	12·48	3·52	3·59	8·90	8·89
May	52		12·39		3·54		8·85
June	70		12·42		3·47		8·95
July	14	12·65	12·19	3·72	3·36	8·93	8·83
August	23		12·67		3·75		8·92
September	64		12·74		3·78		8·96
October	58	12·94	12·95	3·88	3·93	9·06	9·02
November.....	55		13·11		3·98		9·13
December	32		12·64		3·61		9·03
TOTAL	542	12·62		3·66		8·96	

Table 7 contains figures for the composition of ilks sold in Salford for the past nine years. For urposes of comparison a few other figures have been ken from the annual reports of the authorities amed, together with the figures obtained by the halysis of thousands of samples by Richmond.

TABLE 7.

Place.		Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
ford	1914	196	12·58	3·77	8·81
	1915	435	12·62	3·78	8·84
	1916	386	12·41	3·61	8·80
	1917	539	12·69	3·81	8·88
	1918	863	12·40	3·63	8·77
	1919	837	12·44	3·66	8·78
	1920	1000	12·39	3·53	8·86
	1921	899	12·53	3·59	8·94
	1922	932	12·47	3·61	8·86
	1923	779	12·54	3·61	8·92
ll	1922	456	12·70	3·85	8·85
rtsmouth	1922	573	12·48	3·66	8·82
ton	1922	174	12·55	3·65	8·90
pney	1922	840	12·40	3·69	8.71
erpool	1922	3673	12·47	3·64	8·83
stol	1922	595	12·45	3·60	8·85
mingham	1922	2349	12·41	3·65	8·76
hmond's Figures	1910	19807	12·62	3·73	8·89
	1916	14286	12·67	3·82	8·85

These figures show that the composition of the milk ld in Salford has, generally speaking, a satisfactory emical composition, and that it compares favourably ith that sold in other districts.

It should be pointed out that the averages, at ast as far as Salford is concerned, are not quite ir and that the average quality of the milk entering e Borough is appreciably better. This is brought

about by the fact that samples of milk taken are to a certain extent, picked samples, as frequently several samples will be taken from one vendor whose milk is of suspiciously low quality. Each of these samples will then affect the final average which latter will not then be, on account of the high percentage of poor milks present, a true indication of the whole of the milk.

Table 8 contains a list of the samples of milk found to be adulterated, together with the action taken in regard to each sample :—

TABLE 8.

ADULTERATED SAMPLES OF MILK.

No. of Sample.	Nature of Adulteration.	Action taken.	Remarks.
1594	Contained 6 parts of sediment per 100,000.	Farmer cautioned by letter.	
1653	Contained 6 parts of sediment per 100,000.		
1657	Contained 9 parts of sediment per 100,000.		
1648	Contained 6 parts of sediment per 100,000.	No action.	Subsequent sample genuine.
1672	Contained 12 parts of sediment per 100,000.	Same Wholesale Dealer.	Subsequent sample genuine.
1673	Contained 12 parts of sediment per 100,000.	No action.	
1678	Deficient 10% fat.	Cautioned. First offence.	Subsequent sample genuine.
1688	Deficient 13·3% fat.	Three visits were paid to the farm. The "Appeal to Cow" samples were low. Feed was of poor quality. Farmer was advised ; he undertook to increase the rations.	
1694	Deficient 3·3% fat.		
1720	Deficient 16·6% fat.		
1722	Deficient 10% fat.		
1742	Deficient 10% fat and 5·9% solids-not-fat.		
1746	Deficient 23·3% fat.		
1750	Deficient 10% fat.		
1751	Deficient 10% fat.		
1752	Deficient 10% fat.		
1753	Deficient 6·6 fat.		
1754	Deficient 10% fat.		
1755	Deficient 6·6% fat.		
1756	Deficient 13·3% fat.		
1757	Deficient 20% fat.		
1758	Deficient 20% fat.		
1760	Deficient 6½% fat.		

TABLE 9—*continued.*

ADULTERATED SAMPLES OF MILK.

of	Nature of Adulteration.	Action taken.	Remarks.
	Contained 0·01% potassium nitrate.	Fined £3 for deficiency in fat. Potassium nitrate cases dismissed.	
	Deficient 10% fat.		
	Contained 0·01% potassium nitrate.		
	Deficient 16·6% fat and contained 1 part per 50,000 potassium nitrate.		
	Deficient 6·6% fat and contained 1 part per 50,000 potassium nitrate.		
	Deficient 10% solids-not-fat		See 2210–2213 for farmer.
	Deficient 6·4% solids-not-fat. and 5% fat.		
	Deficient 7·6% solids-not-fat.	Fined £5.	Same farmer.
	Deficient 4·1% solids-not-fat.	Fined £5.	
	Deficient 2·9% solids-not-fat.	Fined £5.	
	Deficient 2·9% solids-not-fat.	Informal sample.	
	Deficient 11% fat.	Fined £5.	Same vendor.
	Deficient 10% fat.	Fined £5.	
	Deficient 9·4% solids-not-fat and 6·6% fat.	Referred to outside Local Authority.	Place of delivery outside district.
	Deficient 9·4% solids-not-fat.		
	Deficient 7% solids-not-fat.	Referred to outside Local Authority.	Place of delivery outside district.
	Deficient 16·6% fat.	Cautioned by letter.	New vendor; milk had been boiled.
	Deficient 13·3% fat.	Fined 10s.	
	Deficient 26·6% fat.	Fined 20s.	

Samples 1688-1760 were supplied by the same rmer. The farm was visited and "Appeal to Cow" mples were taken. The "Appeal to Cow" samples re deficient in fat and the milking appeared to the spector to be done so unsatisfactorily, and the antity of milk produced so low (only about 26 llons in comparison with the 40 gallons that were re being sent to Pendleton Station), that the spector paid a second visit to the farm three days er, taking with him an experienced milker to see at the cows were thoroughly stripped. On the cond visit it unfortunately occurred that the lker and the farmer were acquainted and there

appeared to be collusion between them. Th quantity of milk produced was again low, bein in this case 24½ gallons, and the samples obtaine were very low in fat, one of them containing i addition 10 per cent of extraneous water. As result o these observations the farm was again visite a week after the first visit by the Inspecto Veterinary Surgeon, and Borough Analyst, who too with them three experienced milkers who we personally known to the Inspector. When the part arrived at the farm milking had already commence but the rest of the cows were milked by the visitin milkers. The result of the milking, the whole of th cows in the shippons being stripped, was 39 gallo of milk. This had a composition which was distinct poor, containing less than the official minimum of 3 per cent. There was in this case no trace extraneous water. In the case of the last visit th bulk of the milk was not touched at any time b the farmer or his assistants, and samples of mi brought away were undoubtedly a true index of th milk given by the cows. It was therefore impossib to take proceedings against the farmer for th deficiency in fat of his previous samples, neither cou proceedings be taken against him for addition of water his farm samples as these were not and could not be take officially. A further visit was paid to the farm by th Inspector and the Borough Analyst, and the farm admitted that he was worried by the visits of th Inspector and that he had attemped to produ milk of low quality during the Inspector's first visit b partially milking his cows. The addition of wate

e said, was done by one of his farm hands without is knowledge in an attempt to shield the farmer. 'he cause of the poor milk which the cows were ndoubtedly yielding was in all probability due to he deficiency of nitrogen in the rations. This onsisted of poor quality hay, maize meal, bran and lage, the latter of very poor quality. The farmer ndertook to improve the rations and to do all e could to keep up the standard of his milk. his farmer has now ceased sending milk to alford, so that it has not been possible to keep the ilk under observation.

Samples No. 1942-1985 are interesting, as, in so far s the writer is aware, they are the first prosecutions be instituted for the presence of Potassium Nitrate altpetre) in milk. The presence of Saltpetre in ilk was detected by the writer in 1913, whilst some milar cases were described in the Annual Report this Department for the year 1921. In these esent cases a prosecution was instituted and the endor was fined £3 for the deficiency in fat. The agistrate remarked that he would not, on this casion, impose a penalty for the presence of the otassium Nitrate, but he hoped that the case would rve as a warning to others in future.

In the case of the other adulterated samples fficient detail is given in the above table, and no ther comment seems to be called for.

A proportion of the samples of milk have again en examined for sediment in the manner outlined

in previous reports. The figures are given in Tab 9, together with those for 1921 and 1922 f comparison.

TABLE 9.

DIRT IN MILK.

Dirt Parts per 100,000.	1921.		1922.		1923.	
	No. of Samples.	Per cent of Whole.	No. of Samples.	Per cent of Whole.	No. of Samples.	Per c of Wh
0·0	180	36·2	167	39·2	82	34·(
0·5	78	15·7	59	13·9	24	10·1
1·0	110	22·2	117	27·4	48	20·2
1·5	3	0·6	4	0·9	6	2·5
2·0	8	1·6	..	..	..	..
2·5	..	..	..	..	6	2·5
3·0	76	15·3	50	11·7	43	18·1
4·0	3	0·6	1	0·2	9	3·8
5·0	4	0·8	5	1·2	4	1·7
6·0	18	3·6	14	3·3	9	3·8
7·0	2	0·4	..	..	1	0·4
9·0	3	0·6	5	1·2	1	0·4
10·0	5	1·0	..	..	..	..
12·0	2	0·4	2	0·5	2	0·9
15·0	4	0·8	2	0·5	2	0·9
90·0	1	0·2	..	..	..	..
Total.....	497	100·0	426	100·0	237	100·(

It will be observed that although a number (samples of milk during the year have been very dirt none of them has been classified as adulterated aft the early months of the year. In previous year those samples which gave a sediment of more tha 5 parts per 100,000 were classified as adulterate This standard is a lenient one. It is not based i any way upon "ideal" conditions or on conditio which cannot be obtained on ordinary farms workin with a very moderate amount of care, but is base upon the results of the examination of samples actuall

old by retail. Since the year 1915, 2,765 samples f milk (which have not been specially selected in any ay, but which are perfectly average samples of milk oming into the Borough) have been examined. Of is number, 946 have been entirely free from diment, 1,208 contained between 0 and 1 part of diment per 100,000, whilst 218 have contained etween 1 and 2 parts of sediment per 100,000. rom these figures it will be seen that 81 per cent the samples of milk which have been examined r dirt over a period of seven years (samples were t tested for dirt during the years 1918 and 1919) ve contained not more than 1 part of sediment r 100,000 parts of milk. It would appear, erefore, that a standard of not more than 1 part sediment per 100,000 parts of milk would be a rfectly fair one to set up, and that milk containing o or more parts per 100,000 should be classified as stinctly unsatisfactory.

The subject, however, is one of peculiar difficulty, it is quite easy for the retailer to remove the lk of the visible dirt by filtration or decantation mediately before selling the milk. The purchaser y think, therefore, that he is getting a clean, pure icle, whereas a serious bacterial contamination, ich is the usual concomitant of visible dirt, irely escapes notice.

t must not be considered that because many of samples during 1923 have not been classified as lterated that the matter is not important. On the

contrary, it appears to the writer that the subje is one of such urgency and importance that so special steps should be taken to deal with it. Su steps as may be found necessary might very well taken in conjunction with producers and distributo the importance to whom of a clean milk supply second only to the consumer. Efforts are being mad by administrative methods, to improve the prese condition of the milk supply in this respect. Shou this fail or yield disappointing results it would see to be necessary to take more drastic steps.

Butter, Margarine, Cheese and Lard.

Fifty-three samples of butter have been examin during the year, all of which have been found to genuine. Nine samples were preserved with bor preservative, which amounted to 0·3 per ce expressed as boric acid in each case. The percenta of water has varied from 3·6 per cent to 14·9 cent. The Reichert-Wollny number of the fat l varied from 24·7 to 31·5.

Butter is required to be made entirely from milk of the cow, and to contain not more than per cent of water. The Departmental Commit on Preservatives in food recommend that the o preservative allowed to be used should be borax boric acid, in amount not exceeding 0·5 per ce calculated as boric acid.

Forty-three samples of margarine have b examined, none of which was adulterated. Sev teen samples were examined for boron preservati

this was detected in every case. In two samples it amounted to 0·2 per cent, in six samples to 0·3 per cent, and in nine samples to 0·4 per cent—expressed as boric acid in each case. The percentage of water has varied from 6·5 per cent to 14·3 per cent.

The main legal requirements in connection with the sale of margarine are:—That it shall be sold in a wrapper on which the word "Magarine" is printed in capital block letters not less than half-an inch long and distinctly legible, that it shall not be described by any name other than either "Margarine" or a name containing the word "Margarine" with a fancy or other descriptive name approved by the Board of Agriculture (The Board of Agriculture are not empowered to approve of any name if it refers to or is suggestive of butter or anything connected with the dairy interest), and that the fat shall not contain more than 10 per cent of butter fat. From these facts it would appear that it was not the intention of the legislature that butter substitutes should be described as mixtures of butter and margarine, particularly as margarine is defined by Section 13 of the Act of 1907 as "any article of food, whether mixed with butter or not, which resembles butter and is not milk blended butter."

It would seem likely that purchasers might be prejudiced by the sale of an edible fat described as "mixed with butter" when it cannot legally contain more than 10 per cent of butter and very frequently contains only a fraction of this amount.

During the year, nine samples of margarine described as mixtures or blends of butter and margarine have been examined, all of which have been returned as adulterated. Section 8 of the Food and Drugs Act, 1899, requires that the fat of margarine shall not contain more than 10 per cent of butter fat, whilst Section 13 of the Butter and Margarine Act, 1907, states that such a mixture is margarine, and Section 8 of the same Act states that it shall not be described by any other name but margarine (with or without a fancy name approved by the Board of Agriculture).

It is obvious from this that the sale of a substance purporting to be a mixture of butter and margarine is illegal, but that, seeing that a butter substitute containing 10 per cent of butter is "margarine," it follows that a blend of margarine and butter must contain more than 10 per cent of butter. Most of the above samples contained only a trace of butter.

Sample No. 2277 contained 1 per cent of butter, sample 2298, a formal sample obtained from the same vendor, also contained 1 per cent of butter. Sample No. 2299 was a sample taken from the manufacturer on delivery to the vendor of sample 2277 and 2298—this also contained 1 per cent of butter. A prosecution for the sale of this article was instituted against the manufacturers, who were fined the maximum penalty of £20.

Sample No. 2307 was an informal sample which contained only a half of 1 per cent of butter.

ample 2507 was a formal sample from the same endor which contained a like amount. Legal roceedings were instituted against the vendor and gainst the manufacturers for aiding and abetting, ut in this case, which came on nearly a year after he samples had been taken, the Stipendiary decided hat he was bound by Anness *v.* Grivell and dismissed he case, although he fined them £3 under each of wo of the sections for faulty labels and descriptions.

The case of Anness *v.* Grivell was heard in 1915. n that case the appellant sold as a "very good ixture of butter and margarine" a substance con- aining 80 per cent of margarine, 15·5 per cent f water, salt, etc., and only 4½ per cent of butter. s Section 8 of the Act of 1899 prohibits the sale of ixtures containing more than 10 per cent of butter, he court felt compelled to hold that no offence had een committed; but intimated that but for the Act f 1899 the decision would have been the other way. t was, however, not pointed out to the judges that ven with 10 per cent of butter the substance must e sold as "margarine," or that, in other words, the mit of 10 per cent of butter does not refer to ixtures of butter and margarine, but to margarine. here has no standard been fixed for the sale of ch mixture, because by the definition of margarine Section 13 of the Butter and Margarine Act, 1907, hich states that "'Margarine' shall mean any rticle of food whether mixed with butter or not hich resembles butter and is not milk-blended utter") such mixtures are legally "Margarine," and

as margarine cannot contain more than 10 per ce of butter, it follows that the sale of such mixtu is illegal.

The writer is of the opinion that, had all the abo points been brought to the attention of the judg a different decision might have been arrived at.

Sample No. 2506 contained half of 1 per cent butter. Legal proceedings were instituted agai the vendors of the sample and against the ma facturers for aiding and abetting. The manager the shop was fined £1 for not having the margar properly labelled, whilst the manufacturers were fi £20 under Section 6 of the Food and Drugs Act, 18 for aiding and abetting, and a further 10/– for having other printed matter than the w "margarine" appearing on the wrapper.

Samples 2731 and 2728, an informal and for sample respectively, were described as "But Mixture" and contained 5 and 7 per cent of but respectively. The vendors were fined £5 un Section 6 of the 1887 Act and £5 under Section 8 the 1907 Act.

Sample 2830 was advertised as "margarine mi with butter," but was sold as margarine. T manufacturers, supplying this material and advertising matter, were communicated with, legal position was pointed to them and they w informed of the results of previous prosecutions a like character. They immediately scrapped so

housands of large posters and informed their retailers hat this material must not in future be sold otherwise than as "Margarine." Under these circumtances legal proceedings were not instituted.

Fifteen samples of cheese have been examined, all of which have been passed as genuine. The fat has n each case proved to be pure milk fat (the Reichert-Wollny figure varying from 25·9 to 32·6), which has been present to any extent varying from 21·5 to 47·0 per cent.

Eight samples of cream cheese have been examined during the year, of which four have been returned as adulterated, as each one only contained between five and six per cent of milk fat. The question of a suitable standard for cream cheese has been a controversial one for many years, but it is apparently generally agreed that a standard of at least 40 per cent of fat is quite reasonable, although some would place it as low as 30 per cent. There is no question, however, but that a skimmed milk cheese should not be sold as cream cheese. There seems to be little doubt that "cream cheese" was originally a cheese made from cream, and this opinion is to some extent supported by the fact that two of the eight samples mentioned above contained 88 and 91 per cent respectively of milk fat. It follows therefore that a cheese made from cream, contrary to the opinion of some who desire it otherwise, can and does exist, and it is surely, therefore, not unreasonable to suppose that the term "Cream Cheese" was applied to this and not to some other article of commerce.

A writer in a local paper has made the astoundin statement that no one would ever dream that crea cheese had anything to do with cream, and that or might just as well expect cream in furniture crean It is probably safer to refrain from making an comments upon such nonsense as this.

The vendor of sample No. 2585, which contained per cent of fat, was prosecuted and fined £5.

A few cheeses during the year were sold a "Bondon Cheese." Of these Bondon Cheeses som contained 38 per cent of fat, whilst others containe only 5 per cent of fat, obviously a very unsatisfactor state of affairs. A special report has been made o this subject, and a paper has been written which has bee read before the Society of Public Analysts an printed in the "Analyst" for April, 1924.

The 22 samples of lard have been returned a geniune. They were free from water, rancidity an paraffin, and no foreign fat was detected in any cas

One sample of dripping has been examined and foun to be genuine.

Cereal Foods

The samples of cereal foods examined during th year have included four of sago, seven of rice, fiv of ground rice, five of barley, six of tapioca and tw of rolled oats—they have all been returned as genuin

Six of the seven samples of rice were free fro mineral facing and contained from 0·26 to 0·54 pe

cent of mineral matter. The sample of faced rice contained 0·15 per cent of talc. From the point of view of dietetics, unpolished rice is undoubtedly better, and it is satisfactory to find that a large proportion of the rice now sold is unpolished.

The five samples of ground rice were free from added mineral matter, containing from 0·14 to 0·80 per cent of ash, showing that they had been prepared from unpolished whole rice.

The five samples of pearl barley have been free from mineral facing and excess of mineral matter. The ash has varied from 0·98 to 1·22 per cent.

Beef and Malt Wine.

During the year a sample of beef and malt wine was submitted for analysis labelled in the following way :— "Liebig's Beef and Malt Wine. Made with Liebig's Extract of Beef and Malt Extract. Health, Strength, Vigour. A wineglassful may be taken two or three times a day. Non-exciseable." A small label on the neck bore the following words : "This beverage is prepared in accordance with the requirements of the Food and Drugs Act and contains a small quantity of salicylic acid as a preservative."

As a result of the analysis of this sample, three formal samples were taken from the manufacturer in due course. The results of the analysis were so

unsatisfactory that the samples were classified as adulterated and they were certified in the following way :—

	" Per cent.
" Water	75·63
" Total Sugar	21·80
" Alcohol	1·50
" Other Extractive Matter	1·00
" Salicylic Acid	0·07
	100·00.

" This ' other extractive matter ' contains 0·01 per cent " of nitrogen (calculated on the original liquid) which indicates " the possible presence of not more than 0·2 per cent of a " mixture of equal parts of meat and malt extracts. This " opinion is based on the fact that a mixture of equal parts " of meat and malt extracts contains about 5 per cent of " nitrogen.

" Observations.

" No change had taken place in the article that would " interfere with the analysis.

" This is not a beef and malt wine. Its composition is " similar to that of a flavoured cordial which usually contains " up to 0·01 per cent of nitrogen derived from sources other " than beef or malt extracts.

" This amount of salicylic acid present is contrary to the " declaratory label on the bottle; it is six times that " suggested as the maximum by the Departmental Committee " on the Preservation of Food, 1901, in respect of beverages "

The vendors were prosecuted and were fined the maximum fine in each of three cases, whilst 20 guineas costs were given against them. The analyses were accepted, the amounts of meat and malt extracts

tually added being about half the maximum amount entioned in the certificate. The contention of e defence was that it was impossible to market a n-alcoholic wine containing larger proportions of eat and malt extract than those present without e addition of a much higher percentage of reservative.

The successful result of this prosecution, which was t reached without a considerable amount of work, particularly gratifying, as a number of large local thorities throughout the country had considered the atter too difficult to tackle from the legal point view.

Syrup Treacle.

Thirty-two samples of Golden Syrup have been xamined during the year. Of these twenty-two were und to be genuine Golden Syrup derived from cane r beet sugar products. In ten samples, however, btained from three manufacturers, a large percentage f glucose syrup was found. The composition and ses of glucose syrup are detailed below under Jams." The main objection to it is that of price, as s cost is not much more than half that of cane yrup.

Sample No. 1829, although asked for as Syrup reacle (or Golden Syrup), was described as Table yrup on the label. The sample was an informal ample and contained 90 per cent of glucose syrup.

In this case it was not found possible to obtain formal sample, so that no futher action has be taken.

Sample No. 2378 was a formal sample taken fr a multiple shop. It was bought as Syrup Trea and the label bore the words "Cane Syrup," and the in much smaller type, "With a percentage of co syrup to prevent granulation." The firm w prosecuted, but the case was dismissed by t Stipendiary on account of the fact that the la was some sort of protection under Section 8 of t Sale of Food and Drugs Act, 1875, although remarked that the label was most unfair and oug not to be used.

Sample No. 2377 was also bought as Syrup Trea It bore a label, "Crystal Syrup." On analysis was found to contain 70 per cent of glucose syr The vendor was prosecuted, and the agents a manufacturers were prosecuted for aiding and abetti This case was also dismissed. The article was ask for as "Syrup Treacle," and the Stipendiary h evidence before him that this was not a term wh was usually known in the trade. The eviden however, came from another district where t particular term does not appear to have b used. In the Salford District, however, ample evide can be found that the term was at one time w known; it is apparently not used as much the present time. It is therefore necessary to a for the pure substance as "Golden Syrup."

Jam.

During the year twenty-six samples of jam have been taken, representative of the product of twenty different manufacturers. Of these samples only seven, prepared by six different manufacturers, had been preserved with cane or beet sugar only. Eighteen samples from thirteen vendors contained 8 to 20 per cent of glucose syrup, whilst one sample contained as much as 35 per cent of glucose syrup.

Glucose or corn syrup is prepared by the action of dilute sulphuric acid or other acid on starch, and consists of a mixture of dextrose, maltose, maltodextrin and dextrin, with varying proportions of water, usually not more than 20 per cent. The substance derived is a wholesome, nutritious and non-injurious food when properly prepared, although the flavour is very distinctly inferior to that of cane syrup or sugar, whilst the price is very little more than half that of the latter. It is used in the smaller quantities not so much with the idea of cheapness as to prevent crystallisation of the sugar on keeping, to retard the growth of mildew and to improve the consistency of the final product. The writer has been informed by at least one manufacturer that they would use a small quantity of glucose syrup even if it were more expensive than sugar.

In the case of Marmalade it has been held by the King's Bench Division in the case of a sample which contained 13 per cent of glucose that there was no evidence to show that the substance was not marmalade, and they squashed the conviction by the

Justices. This ruling would probably be followed in the case of jam, and those samples, therefore, which contained not more than 15 per cent of glucose syrup and which were not labelled in any objectionable way were passed as genuine.

Sixteen of the samples containing glucose syrup obtained from eleven different manufacturers were labelled in such a way that the vendor would imagine that the jams were entirely free from glucose syrup. The following are typical examples:—"Prepared from Fresh Gathered Fruit, Finest Refined Sugar and Richest Fruit Juice;" "Prepared from Fresh Fruit, Pure Sugar and Rich Fruit Juice;" "Made from the finest Seville oranges and Refined Sugar." These jams contained various proportions of glucose syrup up to 25 per cent, the actual percentages being shown in the following table:—

Number.	Description.	Percentage of Glucose Syrup.
2600	Raspberry and Gooseberry .	Contained 15% glucose syrup.
2601	Strawberry and Apple	,, 20% ,, ,,
2647	Apricot	,, 10% ,, ,,
2675	Strawberry	,, 8% ,, ,,
2750	Strawberry	,, 15% ,, ,,
2778	Marmalade	,, 8% ,, ,,
2783	Plum	,, 10% ,, ,,
2794	Strawberry	,, 10% ,, ,,
2799	Stoneless Plum	,, 10% ,, ,,
2855	Plum	,, 10% ,, ,,
2856	Strawberry	,, 10% ,, ,,
2860	Stoneless Plum	,, 8% ,, ,,
2865	Raspberry	,, 8% ,, ,,
2874	Strawberry	,, 35% ,, ,,
2955	Strawberry preserved with Crystal Sugar.	,, 35% ,, ,,
2973	Strawberry	,, 10% ,, ,,

Each of the manufacturers of the above jams has been communicated with, and in most cases a personal interview has been arranged and the matter has been thoroughly thrashed out. Nearly all the manufacturers have agreed that this label is misleading. All the manufacturers who are continuing the use of glucose syrup in their jams, without exception, have agreed to remove the offending words from their labels. Each one has given a definite undertaking in writing that they will print no more of their present labels, and in most cases proofs of their new labels have been submitted to and passed by this Department. Two manufacturers not wishing to alter their label have given a definite undertaking that they will not use any more glucose syrup in the manufacture of their jams or marmalade.

The jam containing 35 per cent of glucose syrup was labelled "Choice selected fruit, finest crystal sugar, with a little fruit juice." This label is, of course, incorrect even in the case of a jam containing a much smaller percentage of glucose, and, although the manufacturers were quite willing to cease using this label, a further question arose as to whether the quantity was not sufficiently large to come under the heading of "Fraudulently to increase the bulk, weight, or measure of the food" as laid down by Section 6 of the Food and Drugs Act, 1875. A long discussion took place with the representatives of this firm and with their chemical adviser. They finally agreed in writing to omit all references to sugar on their labels

in the case of jams which contain about 15 per cent of glucose syrup, and that in the case of other cheaper qualities of jams which were made with larger proportions of glucose syrup to add the following words to the label, "Scientifically preserved." The position in regard to this firm is now considered to be satisfactory, as the jam containing the larger proportion of glucose syrup is considerably cheaper than practically any other on the market and, indeed, is only about half the price of the best quality.

It is considered that the administrative action described above, which has occupied some considerable time, will undoubtedly have good effect. It will now be possible to distinguish the product of those manufacturers who do not use glucose syrup by an inspection of the labels on their jams.

Twenty samples of jam were tested for the presence of salicylic acid. In five samples salicylic acid was found to be present in varying quantities not exceeding 1 grain per pound, which is the maximum quantity recommended by the Departmental Committee on Preservatives in Food.

Drugs.

One hundred and four samples of drugs have been examined during the year, of which only three have been returned as adulterated. This figure is very similar to last year, and is a very big improvement on the

ars previous to that one, when the percentage of ulteration among the samples of drugs was in nearly ery case considerably over 10 per cent.

The sample of Glycerine of Boric Acid, No. 2488, as deficient of 60 per cent of boric acid and ntained 15 per cent of water. This was an formal sample. It was found impossible to obtain formal sample, so that legal proceedings could not be tituted in this case and the vendor was cautioned.

The samples of Potassium Iodide were taken as a ult of the incorrectly dispensed prescriptions orded below. Sixteen samples of this drug have en purchased from various pharmacies in the rough. Fourteen of these were of B.P. standard, t two contained respectively 10 per cent and 13 cent of chloride calculated as potassium chloride. investigation it was found that the two samples d been purchased about the same time from same wholesale house with a guarantee, and rther that the wholesale house had obtained the bstance under guarantee from a firm of the very ghest repute. Every endeavour was made to cover the cause or source of the impurity, but hout success. In the end it was decided that warning would be sufficient in these cases and no secutions were instituted. The wholesale house ve, however, undertaken in writing to have the lowing notice printed on all invoices sent out :— Ve guarantee all B.P. preparations charged in s invoice to comply, at the time of dispatch,

with the requirements of the British Pharmacopœi unless otherwise indicated hereon or on the containe

They have futher agreed that "Although we ha always taken great care to prevent contaminati when handling all our drugs, we now underta to do all that is humanly possible to ensure agai any likelihood of any occurrence of this kind at works or warehouse. Strict instructions have b given to our managers, and will be enforced."

Prescriptions.

Fifty-six samples of dispensed medicine have b taken during the year in accordance with arrangements made between the Health Commit and the Insurance Committee. Of these, six h been returned as unsatisfactory, giving a percent adulteration of 10·7. This figure is considera higher than that for either of the two previous ye This need not, however, cause any alarm whate Of these six faulty mixtures only one could attributed to careless dispensing. One of the er was caused by the use of impure potassium iod the error in this case not being particularly seri whilst four of the irregularities were due to deficiency of Cod Liver Oil in Cod Liver Oil Emuls the deficiency in every case being due to the confu which exists between the B.P.C. emulsion and emulsion which is required by the Health Departm

The only serious case of this type of adulteration du the year was sample No. 1730. In this case

prescription required that an aloes and iron pill should be supplied. The vendor had apparently none of these pills in stock, and supplied in place a pill of aloes and myrrh. He was fined £3.

Arsenic in Food Wrappers.

During the examination of a sample of proprietary bread it was discovered that the violet ink used for the printing on the wrapper contained appreciable quantities of arsenic. As a result of this discovery a large number of coloured wrappers and labels and a number of coloured papers have been examined to discover whether or no they contained arsenic. In all, 51 samples have been examined, and of these nine contained an appreciable quantity of arsenic. These nine samples consisted of two blue papers, five purple papers and two green papers. The quantity of arsenic in one paper faced with a purple colour was about one-third of a grain per square foot.

It was not considered advisable to approach the packers of these goods in order to discover the source of the colours used in the printing. The writer, therefore, made careful inquiries in regard to the composition of printers' inks, and finally, through the courtesy of a large local firm of lithographic printers, he was able to procure nine samples of ink largely used in printing. These consisted of three blues, one violet, one water violet, one red, two greens and one yellow. All these inks were practically free from arsenic with the exception of one violet ink, which contained about 10 per cent of arsenic calculated as arsenious oxide.

Apart from any real danger that might arise from the licking of such brightly coloured paper by young children, it would not seem advisable to allow the possibility of persons obtaining poisonous doses of arsenic without any record that such arsenic had been in the person's possession.

The presence of the arsenic is due to the use of arsenical lakes in the colours from which the printing ink is made. By the use of these arsenical lakes it is alleged that brighter colours can be obtained, but there seems to be no real reason for their use, especially when one takes into account the possible danger that might arise. This danger is not very urgent, as lakes generally are used on account of their insolubility.

One violet colour used in confectionery was examined, but was found to be free from arsenic. This is merely what was to be expected, as the type of soluble colour used in food is quite different from the lakes used in colour printing.

2. Miscellaneous Samples.

One hundred and sixty-seven samples have been sent in by various Corporation Departments during the year, a much larger number than in any previous year.

Twenty samples of water were taken from ordinary service taps in the Borough, and represent both

Thirlmere and Woodhead supplies. The average results obtained are set out in the following table :—

PARTS PER 100,000.

	Thirlmere.	Woodhead.
Total Solid Matter	3·5	6·3
Free Ammonia	0·002	0·002
Albumenoid Ammonia.....	0·005	0·005
Oxygen Absorbed (3 hours at 27 deg. Cen.)..	0·094	0·090
Combined Chlorine	0·9	0·9
Alkalinity (as $CaCO_3$)	0·3	0·1

These results show that both supplies are of excellent quality.

Thirteen samples were taken from the River Goyt, near Nab Top Sanatorium, Marple, in connection with the working of the sewage disposal plant. Thirteen samples of effluent were taken from the plant and found to be of suitable composition for discharging into the stream.

Thirty-five samples of canned goods were examined for the Health Department. Of these, twelve samples of tinned fish and eight samples of tinned tomatoes were fairly satisfactory, giving, as they did, less than 2 grains of metallic tin per pound; fifteen samples of tinned bristlings were unsatisfactory as they contained from 2·7 to 6·7 grains of metallic

tin per pound. Such a quantity is undoubtedly injurious. The samples were condemned, and the owners agreed to withdraw them from sale and destroy them.

In addition to the samples of milk reported on elsewhere, thirteen samples of foodstuffs have been examined for Ladywell Sanatorium, whilst twelve samples of foods and drugs have been examined for Nab Top Sanatorium; all these have been found to be satisfactory.

3. Samples under the Milk and Cream Regulations, 1912 and 1917.

1. Milk and Cream not sold as Preserved Cream.

	No. of samples examined for the presence of a preservative.		No. in which preservative was reported to be present.
Milk	779	....	0
Cream	7	....	6

2. Cream Sold as "Preserved Cream."

(i.) Correct statements made 8

(ii.) Statements incorrect 0

8

(iii.) Percentage of preservative found in each sample: 0·34%, 0·24%, 0·16%, 0·19%, 0·21%, 0·27%, 0·30%, 0·29%.

Percentage stated on Statutory label:

To contain not more than ·4 per cent boric acid preservative.

(*b*) Determinations made of milk fat in cream sold as "Preserved Cream":—

(i.) Above 35 per cent	8
(ii.) Below 35 per cent	0
	8

(*c*) Instances where (apart from analysis) the requirements as to labelling or declaration of Preserved Cream in Article V. (1) and in the proviso in Article V. (2) of regulations have not been observed :—

Six.

(*d*) Particulars of each case in which the Regulations have not been complied with and action taken :—

2314.	"Thick Rich Cream" in addition to the statutory label	Cautioned.
2418.	"Thick Rich Cream" in addition to the statutory label	Cautioned.
2433.	"Thick Rich Cream" in addition to the statutory label	Cautioned.
2416.	Contained 0·3 per cent boric acid	Fined £3.
2425.	,, 0·25 ,, ,, ,, ...	,, £10.
2431.	,, 0·35 ,, ,, ,, ...	,, £5.

4. Atmospheric Pollution.

At the commencement of the year, by arrangement with the Advisory Committee on Atmospheric Pollution to the Air Ministry, a standard rain and deposit gauge was set up in Peel Park. The figures from this gauge are available for the whole year, with the exception of the month of August, in which month

the gauge developed certain defects, which have since been corrected. On account of the interest and value of the figures so obtained two other gauges of a simpler type were started in June, one on the roof of the Health Department in Regent Road, the other on the roof of the Disinfecting Station at Mode Wheel. It was found, however, that the gauge on the roof in Regent Road was subject to a large amount of artificial pollution owing to accumulated dust being blown about by the wind, so that this gauge was moved at the commencement of September to the centre of the park in Regent Square, where it now is.

At the beginning of September another gauge was set up in the grounds of Nab Top Sanatorium, Marple. Figures from this gauge are still being obtained.

The complete figures for the various gauges will be found, in due course, in the Annual Report of the Central Committee, so that it would not appear to be necessary to record here the whole of the results obtained. It may, however, not be without interest to give a brief outline of the method adopted.

The Standard gauge consists of a galvanised iron stand, supporting a circular porcelain gauge vessel of about 1 ft. diameter. Projecting above the gauge vessel is a wire screen open at the top, intended to prevent birds from settling on the edge of the vessel. The gauge vessel is conical at the bottom and communicates, by means of a glass tube and rubber

connection, with a group of bottles, designed to hold one month's rainfall. The rain and deposited matter falling on the gauge are collected in the bottles, and removed once a month for analysis.

The total amount of insoluble matter is determined, and also the organic or sooty matter obtained in this insoluble matter. The amount of solids dissolved by the rain water is also determined, as also is the amount of loss when these soluble solids are heated to redness. Other determinations are: tarry matter, sulphates, chlorine, and ammonia.

In uniformity with the results expressed by other stations, of which there are a number scattered throughout Great Britain, the results are expressed in metric tons per square kilometre. The metric ton is equivalent to slightly more than the British ton, whilst there are 2·59 square kilometres in a square mile, so that to convert metric tons per square kilometres to tons per square mile it is necessary to multiply by 2·55 or, roughly, $2\frac{1}{2}$.

The following are the average results that have been obtained during the year: The higher ground of Peel Park is somewhat less contaminated than the lower portions of the Borough, whilst, as was to be expected, the atmosphere at Nab Top is, comparatively speaking, "pure."

In order that comparison may be made with other districts the average figure has been included in the table for the gauge giving the least deposit, that is the one at Malvern, and also that giving the greatest deposit, the one at Rochdale.

	Salford : Peel Park.	Salford : Mode Wheel.	Salford : Regent Square	Marple : Nab Top.	Rochdale.	Malvern.
Rainfall in Millimetres	*83·07	†97·14	‡113·78	§103·86	‖94·7	**49·5
Tar.	0·24	0·23	0·21	0·06		0·00
Carbonaceous, other than Tar. (Insoluble Matter)	3·23 — 7·99	4·23 — 7·64	4·26 — 8·59	0·81 — 1·36	17·50	0·16 — 0·54
Ash.	4·52	5·18	4·12	0·49		0·38
Loss on ignition. (Soluble Matter)	2·19 — 5·05	1·87 — 5·22	2·56 — 5·45	2·19 — 3·79		0·58 — 1·90
Ash. (Soluble Matter)	2·86	3·35	2·89	1·60		1·32
Total Solids	13·04	14·86	14·04	5·15	25·66	2·44
Sulphates. (Included in Soluble Matter)	1·98	2·49	2·82	1·94		0·56
Chlorine. (Included in Soluble Matter)	1·17	1·39	1·24	0·74		0·18
Ammonia. (Included in Soluble Matter)	0·06	0·08	0·09	0·05		0·02

* 11 months' average.

† 7 months' average.

‡ 3 months' average.

§ 4 months' average.

‖ 2 years' average.

** 3 years' average.

SECTION VII.

CHILD WELFARE AND SUPERVISION OF MIDWIVES.

The Staff consists of three Lady Medical Officers (one part time), an Assistant Inspector of Midwives, 6 Health Visitors, a Masseuse, and five clerks. It is the duty of the Medical Officers to conduct all examinations of mothers and children attending at the Clinics and at the Centres, and, in addition, to supervise the visiting and conduct the administrative work of the Department. Each Health Visitor is allotted a district, to the visiting of which most of her time is devoted, and a record is kept of all details connected with the sanitary state of the house and the health of its occupants. In addition, the Health Visitors carry on the work at the various Mothers' Centres in the Borough.

The Work of the Health Visitors.

During the year 1923, 16 Wards have been visited by the Health Visitors, namely, Kersal, Mandley Park, Albert Park, Charlestown, St. Matthias', Trinity, St. Thomas', Claremont, St. Paul's, Seedley, Langworthy, Weaste, Regent, Docks, Crescent, and Ordsall Park.

The following table gives the number of visits paid by the Health Visitors in the various Wards, the number of babies and expectant mothers visited, and the number of nuisances referred to the Health Department during 1923 :—

TABLE C.W. 1.

Wards.	Total No. of Visits to Homes in 1923.	First Visits to Homes of Babies.	No. of Visits to Expectant Mothers.
Kersal	1054	183	38
Mandley Park	2072	338	72
Albert Park	1958	370	41
Trinity	3492	400	91
St. Matthias'	3013	400	164
Crescent	2113	434	60
St. Thomas	2755	280	82
Charlestown	2579	372	42
Claremont and Weaste	2515	277	78
Seedley	1250	224	13
Langworthy	1237	218	34
Regent	2622	361	33
Docks	1032	172	15
St. Paul's	2772	335	99
Ordsall Park	2953	412	84
	33417	4776	946

The following is a summary of the work done in lford by the Visitor employed by the Manchester wish Ladies' Visiting Association :—

January to December, 1923.

House to House	1055
Special	84

Child Welfare Centres.

There are three branches of the Salford Mothers' Guild the Borough, namely, Ordsall, Rosamond Street and hn Street, Pendleton. At each of these, owing to the nerous help of private persons, expectant and nursing others are able to obtain dinners on every full working y of the week (except in the summer months at Ordsall) a nominal price, of which every advantage is taken.

Other Centres are Langworthy Road, Enys Street, oodbine Street, Regent Road, Teneriffe Street and lams-o'-th'-Height.

At each Centre, an afternoon is set apart for the eighing of the children, and in the case of Langworthy oad, Ordsall and Enys Street, an additional morning ssion has been found necessary. All children are edically examined at their first attendance and eriodically afterwards, and, in addition, any children ho are not gaining satisfactorily, or are ailing, are xamined. Expectant mothers who are in need of advice e also seen.

On other days at Ordsall, Rosamond Street, John reet, Enys Street, and Teneriffe Street, practical classes

and demonstrations are held in sewing, and at John Stre and Rosamond Street classes are also held in cookery a the general hygiene of pregnancy and of the infant.

The Health Visitor for the district in which t Centre is situated helps with the classes, and other worke assist in caring for the babies, so that the mothers m enjoy the benefit of the lessons undisturbed. Mu interest has been taken in these classes during the pa year.

The following figures show the number of atten ances at the Clinics and various Centres during the ye 1923 :—

TABLE C.W. 2.

CLINICS & CENTRES.	No. of New Cases. Children.		No. of New Cases. Mothers.		Total Attendances. Mothers.		Total Attendances. Children.		Grand Total Attendances.	Consultations. Children.		Consultations. Mothers.	
	Under 1.	Over 1.	Expectant.	Nursing.	Expect. ant.	Nursing.	Under 1.	Over 1.		Under 1.	Over 1.	Expectant.	Nursing.
C.W. Clinic	708	710	265	323	27	1366	2918	3308	8319	2399	2704	727	1347
Ordsall Hall.....	226	56	17	104	28	869	2607	544	4048	413	147	28	119
Chapel Street	250	65	17	152	55	1238	2632	1153	5078	430	261	55	150
John Street, Pendleton..	212	72	10	87	33	859	2895	895	4682	437	197	33	100
Seedley	312	67	9	155	14	1038	3892	1018	5962	582	206	14	105
Enys Street	253	88	12	167	41	1435	3111	1693	6280	453	491	41	152
Regent Road	269	160	1	146	1	674	1690	1051	3416	510	406	6	40
Woodbine Street	193	35	3	108	4	832	1849	474	3159	395	152	4	65
Teneriffe Street	375	93	..	165	..	855	2872	1087	4814	647	108	..	25
Teneriffe Street Clinic....	488	247	85	170	182	437	3233	2974	6826	1681	1363	177	434
Irlams-o'-th'-Height	125	47	6	55	13	351	1103	496	1963	300	156	13	47
	3411	1640	365	1632	1098	9954	28802	14693	54547	8247	6191	1098	2584

Maternity and Child Welfare Clinics.

There are two Clinics in the Borough, namely, Rege Road and Teneriffe Street, Broughton.

At these Clinics special facilities are available f the examination and treatment of ailing children requ ing more frequent medical supervision than can be pr vided for at the Centres held weekly. Thursday each week is set apart for expectant and nursing mothe who require medical advice for themselves. Thr skilled attention is available for the child from the tir of its conception to the time at which it is passed on the care of the School Medical Officer.

The Clinics are open five mornings per week. Wh the children improve, they are passed on to the Cen nearest to their homes. Also any children attendi one or other of the Centres, who require treatment, a referred to the nearest Clinic.

All cases attending at the Clinics and Centres a "followed up" in the homes by the Health Visito who help the patients to carry out the instructions giv

Milk Scheme.

A number of very deserving cases have been assis under the above scheme, and the admirable results increasingly evident, the individual improvement of babies being observed as they are brought to the vari centres to be weighed each week.

Up to the end of December, 1923, assistance has been ven to 647 applicants, free milk being granted to 1 and milk at part-pay to 6.

Massage.

During the current year a whole-time Masseuse has en employed at the Clinics and at John Street, osamond Street, Ordsall and Enys Street. Due to the rge number of cases needing treatment in this epartment, assistance in this work has been given by o of the Health Visitors with massage qualifications.

The results of the treatment in all cases where others will continue to bring the children regularly d for a sufficient length of time are very satisfactory, d complete cures have been effected in a good number cases, as will be seen by the figures in the statement low. Quite a large number still retained on our books e practically ready for discharge. No case is officially scharged without being first thoroughly examined by e doctor, some cases, however, which are really fit for scharge cease attending and thus miss the official scharge.

Most of the mothers take a keen interest in this ork, and are very willing to carry out the advice given them with regard to the children who are receiving eatment.

During the year 1923 the following cases have been dealt with :—

Clinics and Centres.	No. of Regular Cases.	No. of Casual Cases.	Cases Discharged Cured.
Regent Road	160	60	46
John Street	36	..	12
Rosamond Street	18	9	4
Teneriffe Street	116	..	51
Enys Street	39	14	19
Ordsall	17	23	12
TOTAL	386	106	144

15 of the above cases were transferred to Gartside Street.

Midwives Act.

There are 77 midwives on the register in Salford ; are connected with public institutions, 5 are not practising, 3 others are maternity nursing—leaving 6 practising midwives, of whom 59 reside within th Borough.

PARTICULARS OF QUALIFICATIONS.

	Bona-fides.	St. Mary's Hospital.	London Obstetrical Society	Central Midwives Board.	Total.
Practising Midwives	3	8	9	47	6
Non-practising Midwives.....	—	1	2	2	
Maternity Nursing	—	—	—	3	
Institution Nurses	—	—	—	2	
Totals	3	9	11	54	7

The midwives are regularly visited, and their books, instruments, &c., inspected by the Lady Inspector, under the supervision of the Medical Officer, and the midwives are encouraged to consult with the Medical Officer when cases of difficulty arise. During the year 10 midwives removed from the district, 4 of these from the Royal District Nurses' Home, The Crescent; 4 changed their address; 8 midwives were newly registered. During the year 1923, 3,778 births were attended by midwives alone, and 337 cases were attended by doctors and midwives acting as Maternity Nurses. 21 cases of puerperal fever were notified during the year; 10 occurred in connection with miscarriages (5 being attended by doctors and 5 occurred in St. Mary's Hospital). Of the remaining 11 cases, 8 midwives had 1 case each. 2 cases were attended by St. Mary's Hospital Nurses, and in 1 case a midwife was engaged as Maternity Nurse. They were thoroughly enquired into, and every care taken to prevent the spread of the disease.

On notification, each case is inspected. The house is visited by the Assistant Supervisor of Midwives and the patient removed by Doctor's orders (except in one or two special cases), to Ladywell Sanatorium or Hope Hospital. Full details are taken from someone in the house in authority, *re* onset, etc., and questions asked as to the Midwife's regular visiting, cleanliness, etc. The patient's bedding is taken away for fumigation, and the room disinfected. The house is visited later to see that disinfection is satisfactory. The Midwife is interviewed

and particulars taken of the case, also a resumé of any work done since last seeing the infected person. She is temporarily suspended in order that she may go to the Disinfecting Station to have a disinfecting bath, and have her clothes, instruments and bag fumigated. Should she have visited other patients, not being aware of infection at the time, these are seen by the Assistant Supervisor, temperature and pulse taken, and their condition generally noted. The Midwife is warned to take special precautions regarding them, to watch carefully, and send for the doctor without delay if at all anxious about them. In a case of suspected Sepsis, the Midwife sends for the Doctor, reports to the Health Office, and is temporarily suspended until she hears the Doctor's decision, or as an alternative she may devote herself to the one patient, and pass on her other duties to another Midwife.

8 midwives were disinfected at Mode Wheel on account of having been in contact with a notifiable infectious disease other than puerperal fever; and midwives were instructed to take disinfecting baths at home.

1,448 notifications of calling in medical practitioners have been received, the causes being the following :—

Abnormal Presentations	75
Deformed Pelvis	20
Antepartum Hæmorrhage	30
Placenta Prævia	11
Postpartum Hæmorrhage	18
Uterine Inertia	28
Obstructed labour, or requiring instrumental assistance	294
Retained Placenta or Membranes	54
Ruptured Perineum	303
Rise of Temperature	27
Eclampsia	..
Premature Birth	52
Miscarriage and Abortion	25
Inflammation of Eyes	263
Other causes relating to Mother	125
,, ,, ,, Child	123
Total	1,448

14 notifications of contact with infectious disease were received.

55 notifications of artificial feeding, 109 still-births and 10 deaths of infants were notified by midwives during the year.

Investigation of Stillbirths and Infant Deaths.

Each case is thoroughly investigated by the Assistant Supervisor of Midwives.

As practically every mother now receives Antenatal care where there is a history of previous stillbirth, the mother is advised to seek medical advice from her own

Doctor, the Welfare Clinics, St. Mary's Hospital, or other kindred institutions, and in most cases this advice is followed out.

Out of the 109 stillbirths there were :—

7 Abnormal presentations.
54 Premature.
3 Anencephalus.
26 With history of previous Stillbirth.
19 Born before arrival of help (8 of these were macerated).
4 cases of one twin.
60 Macerated.
6 cases of Antepartum hæmorrhage.
3 cases of Placenta Prævia.

Infant Deaths.

10 Infant Deaths occurred in the practice of Midwives, Inquests being held in each case. Of these :—

4 died of congenital debility (2 from convulsions and 2 from congenital heart).
2 were twins premature.
Medical help sent for in 4 cases but not in time.

When necessary, the Assistant Supervisor attends the inquests.

Ophthalmia Neonatorum.

During the year 1923, 59 cases of Ophthalmia Neonatorum were notified, 18 of these being notified or re-notified by the Medical Staff of the Royal Eye Hospital.

Of the 59 cases notified—

48 occurred in the practice of midwives.

1 was attended by both doctor and midwife.

1 was a doctor's case.

5 were notified from Hope Hospital.

3 were attended by St. Mary's Hospital Nurses.

1 was an emergency, attended by a neighbour.

These cases are visited, on notification, by the Assistant Inspector of Midwives, and where necessary a District Nurse is sent to give treatment under doctor's orders.

In 37 cases both eyes were affected, and in 20 cases one was affected. 2 cases in Salford Union not seen by Supervisor. There were 6 very bad cases, 6 bad cases, and 45 slight cases. 35 cases were referred to the District Nurses, who paid 1416 visits. 227 visits were paid by the Assistant Supervisor of Midwives, who also visits all cases of inflammation of the eyes notified under the Midwives Act, to which she paid 653 visits.

Of the 59 cases—

56 recovered, no injury to sight.

2 in Salford Union, not seen.

1 admitted to Salford Union as inmate with mother.

As the midwives are all very anxious to avoid any trouble with regard to eyes, they are prompt in sending for medical help at the least sign of discharge or inflammation, so that the majority of cases are quite slight.

TABLE C.W. 3.

NOTIFICATION OF BIRTHS.

WARD.	Still Births Notified.	Total Live Births Notified.	Births Notified by Midwives.	Births Notified by Medical Practitioners.	Births Notified by Parents and other persons.	Births in St. Mary's Hospital and Salford Union	Live Births Not Notified
Kersal	6	216	144	50	14	8	5
Mandley Park..	12	320	244	62	—	14	3
Albert Park ...	17	334	215	92	5	22	3
Charlestown ..	20	375	326	21	3	25	2
St. Matthias'..	26	382	293	62	1	26	1
Trinity	24	425	292	103	—	30	—
St. Thomas' ..	15	336	297	16	2	21	5
Claremont ..	4	103	37	48	15	3	5
St. Paul's	13	355	317	15	3	20	1
Seedley	5	134	84	34	7	9	3
Langworthy ..	9	211	163	28	4	16	2
Weaste	15	201	156	19	13	13	2
Regent	23	425	332	55	8	30	1
Docks	7	240	189	31	6	14	3
Crescent	24	473	364	81	—	28	2
Ordsall Park...	21	424	356	20	15	33	2
	241	4954	3809	737	96	312	40

TABLE C.W. 4.

SUMMARY.

BIRTHS.

Registered: Legitimate, 4,841; Illegitimate, 206; Total, 5,047.
Notified: Live births, 4,954; Still births, 241; Total, 5,195.
By Midwives, 3,809; by Parents, Doctors and Institutions, 1,145.

INFANT DEATHS (UNDER 1 YEAR).

Number: Legitimate, 458; Illegitimate, 35; Total, 493.
Rate per 1,000 births: Legitimate, 95; Illegitimate, 170; Total, 98.

MIDWIVES.

No. practising in district: Trained, 64; Untrained, 3.
No. of visits paid: Routine and special, 380.

HEALTH VISITORS

Visits paid by Health Visitors during year:—
To Expectant Mothers: First visits, 939; Total visits, 946.
To Children: First visits, 4,776; Total visits, 33,417.
To Mothers and Children: Total visits, 34,363.

	No. of cases notified.	No. of visits.	No. of cases nursed.	No. of cases removed to hospital.
Ophthalmia Neonatorum	59	227	35	—
Puerperal Fever	21	57	—	20
Measles (all ages)	—	—	—	—