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City of Salford.

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR

1930.

BY

H. OSBORNE,

MEDICAL OFFICER OF HEALTH.





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

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„ BINNS.	„ KAY.
„ BUCK.	„ KEARNS.
„ CONNOLLY, J.P.	„ LYONS.
„ CUTTIFORD.	„ NEIL.
„ FEARNEHOUGH.	„ WEBB, J. A., J.P.
	„ WEIR.

Also co-opted for Housing Purposes :—

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

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

Miss V. HEWIT Representing the Manchester and Salford Women Citizens' Association

The following members were co-opted upon the undermentioned Sub-Committees, viz. :—

Tuberculosis Sub-Committee—Mrs. E. HAMPSON and Mr. A. O. BUCK, representing the Salford Insurance Committee.

Maternity and Child Welfare Sub-Committee—Mrs. J. GOODIER HAWORTH, J.P., and Mrs. PILKINGTON, representing the Ladies' Public Health Society ; and Mrs. CUDDEFORD, J.P., representing the Women's Guild of the Pendleton Co-operative Industrial Society Ltd.

STAFF.

Public Health Department.

Medical Officer of Health.....	}	H. OSBORNE, M.D., M.R.C.S., D.P.H., etc.
Administrative Tuberculosis Officer ...		
Honorary Consulting Medical Officer...		C. H. TATTERSALL, M.R.C.S., L.R.C.P., D.P.H.
Clinical Tuberculosis Officers	{	E. N. RAMSBOTTOM, M.A., B.Sc., M.D. (Lond.), D.P.H., etc.
		J. G. MCKINLAY, M.B., Ch.B., D.P.H.
Maternity and Child Welfare Medical Officers		H. K. BRADÉ-BIRKS, M.Sc., M.B., M.R.C.S., D.P.H. (Senior to 21st August, 1930).
		M. SPROUL, M.B., Ch.B., D.P.H. (Senior from 22nd August, 1930).
		K. D. ARNSBY, M.B., B.S.
		J. C. KING, M.B., Ch.B., D.P.H.
Consulting Obstetrician		W. R. ADDIS, M.C., M.B., Ch.B.
City Pathologist		G. J. CRAWFORD, B.Sc., M.D., M.R.C.P. (Lond.), D.P.H.
Venereal Diseases Medical Officer		E. TYTLER BURKE, D.S.O., M.B., Ch.B.
Deputy Venereal Diseases Medical Officer.		F. W. F. PURCELL, M.R.C.S., L.R.C.P.
Asst. Venereal Diseases Medical Officers.		F. M. BLADES, M.B., Ch.B.
		R. MARINKOVITCH, M.B., Ch.B.
*HOPE HOSPITAL.		
Medical Superintendent.....		J. D. GILES, O.B.E., M.D.
Assistant Medical Superintendent.....		J. STUART SMITH, M.B., D.P.H.
Anæsthetist, Lecturer and Radiologist..		J. GHOSH, F.R.C.S., D.P.H.
Visiting Physician		G. J. LANGLEY, M.D. (Lond.), M.B., M.R.C.P.
Visiting Specialist in Children's Diseases.		CATHERINE CHISHOLM, B.A., M.D.
Visiting Gynæcologist		JOHN W. A. HUNTER, M.B., Ch.B.
Consulting Orthopædic Surgeon		S. M. MILNER, M.A., M.B.
Resident Medical Officer.....		R. W. LUXTON, M.B., Ch.B.
Resident Surgical Officer		G. BROWN, M.B., Ch.B., F.R.C.S.

LADYWELL SANATORIUM.

Medical Superintendent.....	W. EDGE, M.R.C.S., L.R.C.P., D.P.H.
Assistant Resident Medical Officer.....	J. T. C. KEDDIE, M.B., B.S.

NAB TOP SANATORIUM.

Medical Superintendent.....	H. M. FLEMING, B.A., M.D., D.P.H.
Veterinary Inspector	A. ALEXANDER, M.R.C.V.S., D.V.S.M.
Public Analyst	H. E. MONK, B.Sc., F.I.C.
Chief Clerk.....	E. WOOD.
Chief Sanitary Inspector	J. P. CARGILL, M.R.S.I.

* Poor Law Hospital administered by Health Committee subject to general direction and control of Public Assistance Committee.

NOTE.—For Staff of the School Medical Department see page 181.]

TO THE HEALTH COMMITTEE OF THE CITY OF SALFORD.

GENTLEMEN,

I have the honour to present my report on the Health of the City and the work of the Public Health Department for the year 1930.

The statistics referred to below are calculated by reference to the population at mid-year 1930, as estimated by the Registrar General, viz., 230,100.

Death Rate.

The Death Rate for 1930 was 13·3 per thousand of the population. This is quite an encouraging figure and shows a reduction of 2·1 per thousand, compared with 1929. It is actually identical with the figure for 1928 which was the lowest but one ever recorded for Salford. The principal reduction in the causes of death occurred as follows :—

	1930	1929
Whooping Cough	19	104
Influenza	34	203
Bronchitis	359	516
Pneumonia	260	391
Diarrhœa and Enteritis	84	166

The comparatively milder weather of 1930 was undoubtedly responsible for the decrease in deaths from respiratory diseases.

Birth Rate.

The Birth Rate was maintained at 16·5 per thousand of the population, a figure almost identical with the rate of 16·6 for 1929.

Infantile Mortality Rate.

A very satisfactory feature of this year's work was the reduction in the infantile mortality rate from 125 to 86 deaths of infants under one year of age per thousand births. Much of this improvement is to be attributed to a great falling off in the incidence of diarrhoea and enteritis, 60 fewer deaths from this disease being recorded than in the previous year, a reduction of nearly 50 per cent. Quite an appreciably smaller number of tiny victims was also claimed by whooping cough, bronchitis and pneumonia. The only disease which showed a definite upward tendency in the destruction of child life during 1930 was measles, which was responsible for twenty-four deaths.

Maternity and Child Welfare.

The activities of the Maternity and Child Welfare Department are reflected in the statistics contained in the last paragraph. The centres and clinics have been well attended and the year's work may be regarded as thoroughly satisfactory, especially when the prevailing distress and reduced earnings in many homes where young children have to be reared, are taken into account.

In August, 1930, Dr. H. K. Brade-Birks, who had been the Senior Maternity and Child Welfare Officer since April, 1917, resigned her post and Dr. M. Sproul was promoted to fill the vacancy. Dr. Brade-Birks gave invaluable service to the Corporation, particularly during the early years of development of Maternity and Child Welfare work, and every credit is due to her for the energy and ability she applied in utilising the facilities placed at her disposal for the organisation of a complete scheme.

Infectious Diseases.

A noteworthy feature of this year was an outbreak of smallpox which occurred in the Weaste district from October to December, 1930, which involved seven persons. None of the cases was of the virulent type and all made complete recoveries.

There was a reduction of 274 in the total number of cases of infectious disease notified during 1930, compared with 1929, but a false impression may be gained from this bare statement unless it is explained that there were 236 fewer cases of acute primary pneumonia and 119 fewer cases of influenzal pneumonia included in the cases notified. The difference in the type of winter experienced in the two years concerned accounts for these great differences. On the other hand the incidence of diphtheria and scarlet fever increased. It is to be regretted that more parents of young children are not alive to the possibility of protecting their children against the ravages of diphtheria by means of the facilities, which are offered to them absolutely free of charge at the Immunisation Clinics established weekly at Regent Road, Salford, and Teneriffe Street, Broughton. Dr. Edge, Medical Superintendent of Ladywell Sanatorium has identified himself whole-heartedly with this work, and a special report on the subject, together with a short review of the work from its inception in September, 1929, to March, 1931, appears in pages 142 to pages 146. While a certain amount of interest has been aroused, the results have not been too encouraging. The public is either too apathetic to the advantages to their children to be obtained from practically life-long protection against

diphtheria or they are prejudiced against the method itself. The writer is inclined to the view that parents are almost equally divided in these respects, and in his opinion a strenuous and persistent campaign directed to convincing the Public of the necessity for protecting their children against diphtheria, would be amply rewarded by the saving of lives, and of much of the expense of treating cases of this disease.

Treatment of Venereal Disease.

Increases in the attendances at both the Male and Female Departments occurred in 1930, the corresponding figures for the years 1929 and 1930 being as follows :—

	1929	1930
Male Attendances	58,634	71,598
Female Attendances	11,972	21,356

The work of the Clinic has grown rapidly since its establishment on 1st April, 1928. There is adequate provision for out-patient treatment, but the in-patient accommodation is far from satisfactory. Arrangements have been approved for the transfer of the Female in-patient beds to Hope Hospital early in 1931. It is very desirable that similar provision on a much more extensive scale than the existing six beds should be made for male patients, and the writer hopes that it may be possible to take steps in this direction in the comparatively near future.

A special report on this subject appears on page 147 to page 180 of this Report.

Local Government Act, 1929.

This subject is specially dealt with in the report appearing on pages 65 to 70.

Housing and Re-Housing.

Reference to this subject is made in the section appearing on pages 49 to 59. It is quite evident to anyone with a knowledge of conditions in the poorer districts of Salford that much work in the way of re-housing remains to be done. It is recognised that the process of evolution to a better state of things must be gradual, but the writer hopes that ways and means may be found to effect a steady improvement in the conditions under which many of Salford's citizens have to live.

In conclusion, I desire to express to the Health Committee my appreciation of the consideration they have extended to me in what has been, in some ways, a trying year. Additional responsibilities and new problems of administration have thrown a severe strain upon the Department, and my thanks are due to the staff for their loyal and effective co-operation.

I have the honour to be, Gentlemen,

Your obedient servant,

H. OSBORNE,

Medical Officer of Health.

CONTENTS.

	PAGE
INTRODUCTION	5

SECTION I.—MORTALITY STATISTICS.

STATISTICAL SUMMARY—

Population.....	}	15
Density		
Births		
Deaths		
Infant Mortality		
Women dying in consequence of Childbirth		

TABLES—

M 3. Deaths detailed in Wards	16
M 4. Causes of, and ages at, Death	18
M 7. Births and Deaths in Wards of Legitimate and Illegitimate Infants under one year old	19
M 8. Births, Deaths under one year, and Infant Mortality Rates, 1915 to 1930	20
M 14. Birth Rates, and Rates of Mortality from Special Diseases, from the year 1878	21, 22

SECTION II.—GENERAL WORK OF THE HEALTH DEPARTMENT.

Sanitary Circumstances and Sanitary Administration of the District	23
Common Lodging Houses	30
Houses Sub-let in Lodgings	31
Seamen's Lodging Houses	32
Workshops	33
Factories, Workshops, Laundries, Workplaces, and Home- work.....	34 to 38
Smoke Nuisance	39

SECTION II.—GENERAL WORK OF THE HEALTH DEPARTMENT—*Continued.*

	PAGE
Manure Receptacles, and Removal of Manure and other Offensive Matter	40
Canal Boats Acts	41
Drainage Inspection	42
Motor Wheel Ambulance and Disinfecting Station	43
Propaganda	45
Sanitary Conveniences	46
Housing Conditions	49
Housing, Town Planning, etc., Act	54
Houses Erected and Demolished	58
Increase of Rent and Mortgage Interest (Restrictions) Act, 1920	58
Certificates as to Families not living under Sanitary Conditions	59
TABLES—General Work of the Health Department, G 2 to G 4	47, 58 and 60
Hospital Services	62
Poor Law Relief	62
Rats and Mice, Destruction of	64
Local Government Act, 1929	65
Vaccination	70
SECTION IIa—ATMOSPHERIC POLLUTION	73
SECTION III.—INFECTIOUS DISEASES.	
Prevalence of and Control over Infectious Diseases	82
Tuberculosis	87
„ Dispensary Treatment	87
„ Institutional Treatment	91
„ Summary of Work Done	96
Periods elapsing between Notifications and Deaths	98
Phthisis and Non-Pulmonary Cases Notified in Age Groups and Sex	98
Phthisis Cases, Occupations of Cases Notified	99
Non-pulmonary Cases—Classification of New Cases Notified	100
Report <i>re</i> Nab Top Sanatorium, 1930	101
TABLES—	
I 1. Cases of Infectious Disease Notified and Removed	84
I 2. Number of Cases of Infectious Disease Notified since the year 1883	85
Ladywell Sanatorium :—	
Report for 1930	107
Diphtheria Immunisation Report	142

SECTION IIIa—VENEREAL DISEASES.

	PAGE
Municipal Clinic	147

SECTION IV.—MEDICAL INSPECTION OF SCHOOLS.

Staff	181
Co-ordination	182
School Hygiene	182
Routine Medical Inspection	183
Findings of Medical Inspection	188
Ringworm.....	190
Alopecia.....	191
Dental Defects and Tables A., B., and..C.	193, 194 to 197
Following up	198

MEDICAL TREATMENT—

Minor Ailments Clinic	199
Tonsils and Adenoids	190, 200
Tuberculosis.....	190, 200

Skin Disease—

Eczema, Impetigo	192
X-ray Clinic	201
Sores	192, 202
Scabies	192, 202
Ear Disease and Hearing	193, 202
Dental Clinic	203
Crippling Defects	198, 203
Heart and Circulation	204
Ophthalmic Clinics	204
Refraction Clinic	205
External Eye Diseases Clinic.....	206
South Bank Sight-saving School	206
TABLES—Cases seen by Ophthalmic Officer	208
Open Air Schools	209, 210
Physical Training	215
Provision of Meals	215
Swimming Instruction	215
Co-operation of Parents	216
" " Teachers	216
" " School Attendance Officers	217
" " Voluntary Bodies	217
Blind, Deaf and Epileptic Children	218
Nursery Schools	220
Secondary Schools	220
Miscellaneous	220
Summary of Examinations	221

SECTION IV.—Continued.

TABLES—	PAGE
I.—(a) Number of Children Inspected—Code Groups	222
(b) Number of Children Inspected—Groups other than Code	222
II.—Return of Defects	224
III.—Return of Exceptional Children in Elementary Schools	228
IIIA.—Return of Exceptional Children examined by Medical Officer	230
IV.—Treatment of Defects	231
V.—Summary of Defects	236
VI.—Summary of Routine Inspections	237
IA.—Number of Children in Secondary Schools Inspected	238
IIA.—Routine Inspection of Secondary Schools.....	239
IIIA.—Prevalence of Pediculosis in Secondary Schools	241
S I.—Summary of Children examined at Inspection Centres	241
S I(B).—Teachers, etc., Medically Examined.....	241
S II(A).—Classification of Special Cases	242
S III.—(a) Defective Children	244
S III.—(b) " " "	245
S V.—Total Number of Children inspected	246

SECTION V.—VETERINARY INSPECTOR'S DEPARTMENT.**DISEASES OF ANIMALS ACTS—**

Cattle Market	247
Tuberculosis Order, 1925	249
Foot and Mouth Disease	250
Anthrax Order of 1928	251
Parasitic Mange Order, 1911	251
Swine Fever Order, 1908.....	252
Importation of Dogs and Cats Order, 1928	252
" " Animals, Act, 1922	253
Railway Pens and Cattle Trucks	254
The Milk Supply	255
Milk (Special Designations) Order, 1923	259
Milk supply to Institutions	260
Farms within the City	262
Inspection of Dairies	262
Inspection of Meat	264
Unsound Food.....	264
Slaughterhouses	266
Offensive Trades	267
Retail Meat Shops and Food Preparing Premises	267

SECTION VI.—PATHOLOGICAL LABORATORY REPORT ... 272**SECTION VII.—CITY ANALYST'S DEPARTMENT.**

Samples under the Sale of Food and Drugs Act	275
Milk	281, 306
Condensed Milk	292
Butter and Margarine	292
Lard	292
Cheese	292
Dried Apricots	294
Candied Peel	294
Whisky	295
Castor Oil Pills.....	295
Compound Liniment of Camphor (Eastons Syrup)	296
Strength of Sunlight.....	298
Atmospheric Pollution	301
Preservatives	311
Law Relating to Food and Drugs—Present Position	313
Food Standards—Definition	315

**SECTION VIII.—MATERNITY AND CHILD WELFARE
AND SUPERVISION OF MIDWIVES.**

Introduction	329
Work of the Health Visitors	329
Maternity and Child Welfare Clinics and Centres.....	331
Massage	334
Artificial Light Clinic	335
Ante-Natal Clinics	335
Maternity Home and Babies' Hospital	336
Milk Scheme	336
Midwives Act	340
Investigation of Stillbirths and Infant Deaths	342, 343
Puerperal Fever and Puerperal Pyrexia	343, 344
Disinfection	345
Ophthalmia Neonatorum	345, 346
Nursing Homes Registration Act, 1927.....	347
Pemphigus Neonatorum	347

TABLES—

C W I.	330
C W II.	333
C W III.....	348
C W IV.	349

SECTION IX.—HOPE HOSPITAL 350

SECTION I.

Mortality Statistics.

STATISTICAL SUMMARY, 1930.

Area.—The City of Salford has a total area of 5,202 acres.

Population.—(Registrar-General's Estimate at Mid-year, 1930) 230,100

Density.—The Mean Density of the City is equal to 43·0 persons per acre.

Live Births { **Legitimate** 1,835 Males, 1,805 Females 3,640
 { **Illegitimate** 76 „ 71 „ 147

Total 3787

Annual Rate of Births per 1,000 of the Population 16·5

Still Births { **Males** 97 } **Total** 182
 { **Females** 85 }

Annual Rate of Still Births per 1,000 Total Births 45·9

Deaths { **Males** 1,620 } **Total** 3,056
 { **Females** 1,436 }

Annual Rate of Mortality per 1,000 of the Population 13·3

Percentage of total deaths occurring in Public Institutions, 48 per cent.

Number of women dying in, or in consequence of, childbirth :—

From sepsis 4

„ other causes 16

Death-rate of Infants under one year of age per 1,000 live births :—

Legitimate, 80. Illegitimate, 224. Total 86

Deaths from Measles (all ages) 68

„ „ **Whooping Cough (all ages)** 19

„ „ **Diarrhoea (under 2 years of age)** 74

TABLE M. 3.
DEATHS IN WARDS FOR THE YEAR 1930.

CAUSES OF DEATH.	AT ALL AGES.																
	City.	Albert Park.	Charlestown.	Claremont.	Crescent.	Docks.	Kersal.	Langworthy.	Mandley Park.	Ordsall Park.	Regent.	St. Matthias.	St. Paul's.	St. Thomas.	Seedley.	Trinity.	Waste.
Malaria .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	3	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..
Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	68	3	7	1	9	3	2	2	1	6	7	4	4	7	..	11	1
Scarlet Fever.....	3	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..
Whooping Cough	19	3	1	..	..	..	2	1	1	1	..	1	..	1	..	7	1
Diphtheria and Croup	31	3	2	2	7	1	1	2	1	1	..	2	3	..	1	5	..
Chicken Pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Influenza	34	2	2	2	4	2	1	5	4	4	2	2	2	1	..	..	1
Erysipelas.....	8	..	..	..	1	1	..	..	..	1	1	1	2	..	..	1	..
Encephalitis Lethargica.....	4	..	..	..	1	..	..	1	1	..	..	..	1	..	..	..	..
Anthrax .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of Respiratory System	281	14	11	12	29	17	6	17	16	24	30	21	22	16	9	30	7
Tuberc: Meningitis	21	1	4	..	4	..	2	1	..	2	2	2	1	..	..	1	1
Other Tuberculous Diseases.....	29	2	1	..	5	1	..	1	3	1	4	3	1	1	1	4	1
Cancer (Malignant Disease).....	327	24	18	11	23	16	18	19	18	21	38	26	21	22	15	24	13
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

MORTALITY STATISTICS.

17

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Diabetes	24	3	1	2	..	1	3	..	2	..	3	4	2	..	1	1	1
Rheumatic Fever	22	2	1	1	4	1	1	..	1	3	2	1	1	3	..	..	1
Meningitis	6	1	..	..	1	1	1	..	..	..	1	..	1	1	..	..	..
Cerebro-Spinal Meningitis	4	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..
Cerebral Hemorrhage, etc.	112	12	3	8	8	4	5	9	10	10	12	4	8	7	3	4	5
Polio-myelitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Arterio Sclerosis	152	13	11	5	8	13	5	4	11	15	11	14	6	8	9	19	10
Heart Disease	310	33	16	12	31	18	16	18	20	15	18	25	21	20	11	21	15
Bronchitis	359	27	20	11	32	15	16	21	32	37	27	28	17	27	5	26	8
Pneumonia (all forms)....	260	17	15	2	25	13	5	10	15	6	1	6	2	22	11	56	7
Other Respiratory Diseases	56	3	6	1	4	3	2	2	5	4	4	7	11	5	1	3	6
Diarrhoea and Enteritis	84	5	3	2	14	3	6	4	4	4	6	7	4	4	1	9	1
Ulcer of Stomach and Duodenum	24	2	5	..	1	1	..	1	3	..	..	4	..	..	2	1	3
Appendicitis and Typhlitis	17	3	..	1	..	..	2	..	3	1	1	..	2	2	3	..	1
Cirrhosis of Liver	11	2	..	..	..	..	1	2	..	1	..	..	..	..	..	2	1
Alcoholism .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephritis, Acute and Chronic	90	6	4	7	10	5	3	3	7	3	6	9	5	5	1	8	8
Puerperal Sepsis	4	1	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..
Other Accidents and Diseases of Pregnancy and Parturition	16	2	5	1	1	..	1	..	2	..	1	2	1	..	..	..	..
Congenital Debility and Malformation	44	4	1	4	7	1	2	..	4	5	2	1	4	3	..	4	2
Premature Birth	60	4	3	2	9	3	1	..	6	5	9	1	5	8	..	2	2
Violent Deaths (excluding Suicide)	94	5	7	5	7	9	4	1	8	8	8	8	4	6	2	6	6
Suicide	28	1	1	..	1	1	1	1	3	3	3	2	3	2	1	6	1
Other Defined Diseases	445	37	26	20	44	22	30	20	24	26	30	24	24	31	20	36	31
Ill-defined or Unknown	6	..	1	..	..	..	..	1	1	1	..	1	1	..	..	..	..
Totals	3056	236	175	112	291	155	138	146	209	230	250	224	198	204	97	257	134

TABLE M. 4.

CAUSES OF, AND AGES AT, DEATH DURING THE YEAR 1930.

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.	65 and upwards.
ALL CAUSES—Certified	3052	323	87	61	85	172	382	939	1003
Uncertified	4	..	..	..	..	..	..	3	1
Malaria .....	..	..	..	..	..	..	..	..	..
Enteric Fever	3	..	..	..	..	..	1	1	1
Small Pox .....	..	..	..	..	..	..	..	..	..
Measles	68	24	28	13	3	..	..	..	..
Scarlet Fever	3	..	..	3	..	..	..	..	..
Whooping Cough	19	6	8	4	1	..	..	..	..
Diphtheria and Croup	31	1	4	6	17	1	1	1	..
Chicken Pox .....	..	..	..	..	..	..	..	..	..
Influenza	34	..	..	..	1	3	7	15	8
Erysipelas	8	..	..	..	..	..	..	5	3
Encephalitis Lethargica	4	..	1	..	..	1	1	1	..
Anthrax .....	..	..	..	..	..	..	..	..	..
Tuberculosis of Respiratory System	281	1	1	2	7	71	101	92	6
Tuberculous Meningitis	21	3	5	4	3	5	1	..	..
Other Tuberculous Diseases	29	5	1	1	2	7	7	6	..
Cancer, malignant disease	327	..	..	..	..	..	24	163	140
Diabetes	24	..	..	..	..	..	5	9	10
Rheumatic Fever	22	..	..	..	7	4	3	2	6
Meningitis	6	2	1	..	2	1	..	..	..
Cerebro-Spinal Meningitis	4	1	1	1	1	..	..	..	..
Cerebral Hæmorrhage, etc.	112	2	..	..	..	2	4	36	68
Poliomyelitis .....	..	..	..	..	..	..	..	..	..
Arterio Sclerosis	152	..	..	..	..	..	1	35	116
Heart Disease	310	..	..	..	7	13	27	110	153
Bronchitis	359	8	3	1	..	4	21	137	185
Pneumonia (all forms)	260	50	20	9	9	16	42	69	45
Other Respiratory Diseases	56	2	3	1	2	4	6	23	15
Diarrhœa and Enteritis	84	71	3	6	2	1	1	..	..
Ulcer of Stomach and Duodenum ..	24	..	..	..	..	..	7	13	4
Appendicitis and Typhlitis	17	..	..	..	1	5	6	4	1
Cirrhosis of Liver	11	..	..	..	..	..	2	7	2
Alcoholism .....	..	..	..	..	..	..	..	..	..
Nephritis Acute and Chronic	90	..	..	..	2	3	11	40	34
Puerperal Sepsis	4	..	..	..	..	..	4	..	..
Other accidents and diseases of Pregnancy and Parturition ...	16	..	..	..	..	3	13	..	..
Congenital Debility and Malforma- tion	44	40	4	..	..	..	..	..	..
Premature Birth	60	60	..	..	..	..	..	..	..
Violent Deaths, excluding Suicide.	94	4	2	3	11	13	19	33	9
Suicide	28	..	..	..	..	1	8	16	3
Other Defined Diseases	445	42	2	7	7	14	58	122	193
Diseases ill-defined or unknown ..	6	1	..	..	..	..	1	2	2
Totals	3056	323	87	61	85	172	382	942	1004

TABLE M. 7.

BIRTHS IN THE CITY OF SALFORD AND IN ITS WARDS, DISTINGUISHING
DEATHS OF LEGITIMATE AND ILLEGITIMATE
INFANTS UNDER ONE YEAR OLD.
FOR THE YEAR 1930.

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.
Albert Park	291	6	2.1	30	5	103	88	833
Charlestown	296	11	3.7	16	4	54	42	363
Claremont	70	3	4.3	9	..	129	134	..
Crescent	395	20	5.1	43	4	109	104	200
Docks	174	8	4.6	9	1	52	48	125
Kersal	157	8	5.1	15	3	96	81	375
Langworthy	180	5	2.8	7	..	39	40	..
Mandley Park	213	9	4.2	18	2	85	78	222
Ordsall Park	313	11	3.5	29	5	93	79	455
Regent	311	7	2.2	31	1	100	99	143
St. Matthias'	297	13	4.4	20	2	67	64	154
St. Paul's	250	5	2.0	23	..	92	94	..
St. Thomas'	238	7	2.9	29	2	121	117	286
Seedley	111	4	3.6	4	..	36	37	..
Trinity	308	22	7.1	32	3	104	101	136
Weaste	183	8	4.4	8	1	44	40	125
Totals	3,787	147	3.9	323	33	86	80	224

CORRESPONDING DATA FOR THE CITY FOR THE TEN YEARS 1920-1929.

City	49,027	2,023	4.1	5,156	350	105	102	173
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TABLE M. 8.

SHOWING THE BIRTHS IN THE CITY OF SALFORD, DEATHS OF LEGITIMATE AND ILLEGITIMATE INFANTS UNDER ONE YEAR OLD AND THE PROPORTION OF DEATHS UNDER ONE YEAR OF AGE PER 1,000 BIRTHS DURING THE YEARS 1915 TO 1930.

Year.	Births.			Percentage of Il- legitimate Births to Total Births.	Deaths under One Year.			Proportion of Deaths under One Year per 1,000 Births.		
	Total.	Legit.	Illegit.		Total.	Legit.	Illegit.	Total.	Legit.	Illegit.
1915....	5455	5257	198	3.6	733	692	41	134	132	207
1916....	5091	4894	197	3.9	587	544	43	115	112	218
1917....	4452	4234	218	4.9	551	498	53	124	118	243
1918....	4282	4043	239	5.5	478	436	42	111	107	175
1919....	4435	4179	256	5.8	501	466	35	113	111	137
1920....	6441	6170	271	4.2	630	584	46	97	94	169
1921....	5993	5702	291	4.8	641	585	56	107	102	192
1922....	5416	5169	247	4.5	599	564	35	110	109	141
1923....	5047	4841	206	4.1	493	458	35	98	95	170
1924....	4745	4569	176	3.7	579	533	46	122	117	261
1925....	4597	4398	199	4.3	482	452	30	105	103	151
1926....	4511	4342	162	3.6	464	434	30	103	100	185
1927....	4301	4130	171	4.0	348	328	20	81	79	117
1928....	4073	3915	158	3.9	431	403	23	106	104	146
1929....	3903	3761	142	3.6	489	460	29	125	122	204
1930....	3787	3640	147	3.9	323	290	33	86	80	224

TABLE M. 14.

SHOWING THE BIRTH-RATES, ALSO RATES OF MORTALITY FROM ALL CAUSES, FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES, AND FROM PHTHISIS, CANCER, NERVOUS DISEASES, HEART DISEASES, BRONCHITIS, PNEUMONIA, AND THE INFANT MORTALITY RATE, DURING THE YEARS 1878 TO 1930.

Years.	Population.	Rates per 1,000 Population from									Deaths under One Year to 1,000 Births.	Marriage Rate.
		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	17.9
1879*	165,899	43.0	26.7	4.2	2.9	0.4	3.7	1.2	4.3	1.8	170	15.2
1880..	171,727	41.4	27.9	7.4	2.7	0.4	3.2	0.9	3.4	1.9	197	16.6
1881..	177,760	38.8	22.5	3.0	2.5	0.5	3.1	1.1	3.6	1.6	163	16.4
1882..	179,855	39.7	23.7	4.0	2.4	0.4	3.6	1.1	2.8	1.7	177	16.9
Average 5 years.		41.5	25.6	4.8	2.6	0.4	3.4	1.1	3.5	1.8	178	16.6
1883..	181,951	37.3	23.6	3.4	2.7	0.4	3.1	1.2	3.0	1.7	171	16.1
1884*	184,047	38.8	24.4	4.4	2.6	0.5	2.9	1.1	2.8	1.7	184	16.1
1885..	186,142	37.6	23.0	3.6	2.6	0.5	2.9	1.2	3.0	1.9	174	16.1
1886..	188,238	38.5	24.8	4.1	2.6	0.5	2.8	1.3	3.3	1.8	197	15.3
1887..	190,334	36.6	25.5	4.9	2.3	0.5	3.2	1.3	2.9	2.2	195	15.4
Average 5 years.		37.8	24.3	4.1	2.6	0.5	3.0	1.2	3.0	1.9	184	15.8
1888..	192,429	37.1	24.8	3.9	2.3	0.5	3.0	1.1	3.0	2.1	184	15.2
1889..	194,525	35.9	25.1	5.3	1.9	0.6	2.5	1.3	2.6	1.9	181	16.7
1890*	196,621	36.1	27.7	4.4	2.2	0.5	2.0	1.3	3.4	3.8	198	17.5
1891..	198,775	36.3	26.0	3.4	2.2	0.5	2.2	1.1	3.7	3.0	194	18.1
1892..	200,833	35.8	24.6	4.6	1.9	0.6	2.0	1.2	2.6	2.9	186	16.7
Average 5 years.		36.2	25.6	4.3	2.1	0.5	2.3	1.2	3.1	2.7	189	16.8
1893..	203,015	34.7	24.1	4.2	1.9	0.6	2.0	1.4	2.6	2.3	211	16.2
1894..	205,220	34.3	21.1	3.3	1.8	0.6	2.0	1.1	1.9	2.3	174	17.1
1895..	207,449	35.9	25.6	5.0	1.9	0.6	2.0	1.3	2.6	2.7	229	17.4
1896*	209,703	35.6	23.1	4.2	1.5	0.6	2.3	1.4	2.2	2.7	200	18.1
1897..	211,981	35.2	23.9	5.6	1.8	0.6	2.1	1.3	2.4	2.1	219	18.6
Average 5 years.		35.1	23.6	4.5	1.8	0.6	2.1	1.3	2.3	2.4	207	17.5
1898..	214,284	34.9	22.8	4.2	1.8	0.8	2.2	1.2	2.2	2.2	213	18.6
1899..	216,612	34.1	23.9	4.4	1.8	0.6	2.3	1.4	2.5	2.7	211	18.7
1900..	218,965	33.3	25.3	4.1	1.8	0.6	2.4	1.7	3.2	2.8	208	17.3
1901..	221,212	29.2	21.7	4.2	1.8	0.7	1.9	1.5	2.3	1.9	205	17.9
1902*	222,233	34.0	19.3	2.7	1.7	0.7	2.0	1.5	2.2	2.1	157	18.4
Average 5 years.		33.1	22.6	3.9	1.8	0.7	2.2	1.5	2.5	2.3	199	18.2
1903..	223,260	32.6	19.4	2.9	1.8	0.7	1.9	1.4	2.1	1.9	168	18.1
1904..	224,299	32.4	21.4	4.4	2.0	0.6	1.8	1.7	2.2	1.9	193	21.5
1905..	225,327	31.8	17.7	2.6	1.5	0.6	1.7	1.6	1.8	1.8	148	17.8
1906..	226,367	31.2	19.1	3.3	1.7	0.8	1.7	1.5	2.0	1.8	162	18.6
1907..	227,413	30.6	18.5	2.2	1.7	0.7	1.7	1.6	2.1	2.3	140	17.9
Average 5 years.		31.7	19.2	3.1	1.7	0.7	1.8	1.6	2.0	1.9	162	18.8

*In the years 1879, 1884, 1890, 1896, 1902, 1908, 1913, 1921, and 1927 the facts are those registered in 53 instead of 52 weeks; corrections have therefore been made in calculating the rates. † Civil population.

TABLE M. 14—Continued.

Years.	Population.	Rates per 1,000 Population from									Deaths under One Year to 1,000 Births.	Marriage Rate.
		Births.	Deaths, All Causes.	Seven Principal Zymotic Diseases.	Phthisis.	Cancer.	Nervous Diseases.	Heart Diseases.	Bronchitis.	Pneumonia.		
1908*	228,463	31.2	18.7	3.2	1.6	0.7	1.6	1.4	1.9	1.7	153	15.5
1909..	229,519	29.5	19.0	2.5	1.5	0.8	1.7	1.4	2.3	2.3	141	15.6
1910..	230,579	28.6	16.2	1.8	1.4	0.9	1.6	1.4	1.8	1.7	131	16.0
1911..	231,641	27.4	17.4	2.5	1.6	0.9	1.3	1.3	1.8	1.8	154	..
1912..	232,726	26.8	17.2	2.2	1.5	1.0	1.4	1.5	2.1	2.0	130	..
Average 5 years.		28.7	17.7	2.4	1.5	0.9	1.5	1.4	2.0	1.9	142	..
1913*	233,849	27.0	16.3	1.9	1.4	1.0	1.4	1.8	1.8	1.7	139	..
1914..	234,975	26.9	17.1	1.9	1.6	1.1	1.4	1.8	1.8	1.8	126	..
1915..	219,979†	24.8	19.1	2.8	1.7	1.1	1.4	1.6	2.3	1.9	134	..
1916..	214,229†	21.8	15.8	1.2	1.6	1.0	1.3	1.3	1.9	1.5	115	..
1917..	211,373†	18.9	16.0	1.6	1.5	1.2	1.4	1.3	2.0	1.4	124	..
Average 5 years.		24.3	16.8	1.9	1.6	1.0	1.4	1.6	2.0	1.7	128	..
1918..	209,274†	18.3	18.0	1.0	1.6	1.1	1.2	1.1	2.3	1.9	111	..
1919..	226,225†	18.8	15.8	0.8	1.2	1.1	1.1	1.1	2.4	1.5	113	..
1920..	235,239	27.3	13.7	0.9	1.2	1.0	1.0	1.0	1.8	1.1	98	..
1921*	239,100	25.2	13.9	1.1	1.3	1.0	1.0	1.2	1.7	1.5	106	..
1922..	240,700	22.1	14.6	1.3	1.3	1.1	0.9	1.1	1.9	1.7	110	..
Average 5 years.		22.3	15.2	1.0	1.3	1.0	1.0	1.1	2.0	1.5	108	..
1923..	241,600	20.9	13.5	0.8	1.3	1.2	0.9	1.1	1.6	1.5	98	..
1924..	243,700	19.5	14.5	1.3	1.2	1.3	0.7	1.0	1.8	1.6	122	..
1925..	244,700	18.8	13.9	1.0	1.3	1.2	0.8	1.0	1.8	1.3	105	..
1926..	247,400	18.2	12.4	0.7	1.3	1.3	0.9	1.0	1.6	1.1	103	..
1927*	247,600	17.3	13.9	0.7	1.4	1.3	1.1	1.5	1.5	1.3	81	..
Average 5 years.		18.9	13.6	0.9	1.3	1.3	0.9	1.1	1.7	1.4	102	..
1928..	241,500	16.9	13.3	0.8	1.2	1.3	0.8	1.3	1.4	1.2	106	..
1929..	235,600	16.6	15.4	1.5	1.2	1.3	0.9	1.1	2.2	1.6	125	..
1930..	230,100	16.5	13.3	0.9	1.2	1.4	0.8	1.3	1.6	1.1	86	..

* In the years 1879, 1884, 1890, 1896, 1902, 1908, 1913, 1921, and 1927 the facts are those registered in 53 instead of 52 weeks: corrections have therefore been made in calculating the rates. † Civil population.

SECTION II.

General Work of the Health Department.

(A) 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 City 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 City 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 City is occupied by cotton factories and engineering works, with collieries on the outskirts.

The principal Docks and a portion of the Manchester Ship Canal are situated in Salford.

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

Owing to the industrial character of the City, and the close proximity of a number of other industrial towns, the atmosphere of Salford is heavily smoke polluted. This pollution contains an excessive proportion of tarry substances given off from the burning of raw coal in domestic grates. Generally speaking, the rainfall is excessive and the atmosphere humid. Owing to the pollution of the atmosphere and the excess of cloud, there is a deficiency of sunshine.

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 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.

Order in Council, dated 27th March, 1905, directing that none but persons duly licensed shall let Lodgings to Seamen in the Borough of Salford.

The Salford Order, 1906.

The Salford Order, 1908.

The Salford Order, 1912.

The Salford (Union of Townships) Order, 1918.

The Salford Corporation Act, 1920.

Confirming Order of Minister of Health, dated 7th April, 1921, under Section 112 of the Public Health Act, 1875, as amended by Section 51 of the Public Health Acts Amendment Act, 1907, declaring that certain trades be Offensive Trades.

Order in Council, dated 10th August, 1921, approving scheme determining the Wards of the Borough and apportioning the Councillors.

The Salford Order, 1922.

The Salford Order, 1925.

The Salford Corporation Act, 1927.

ACTS OF PARLIAMENT ADOPTED BY THE COUNCIL.

The Baths and Wash-house Acts. Adopted October 4th, 1876.

Infectious Diseases (Notification) Act, 1889. Adopted 5th February, 1920.

The Infectious Disease (Prevention) Act, 1890 (except Sections 14 and 19) and Parts 2, 3, 4 and 5 of the Public Health Acts Amendment Act, 1890. Adopted January 7th, 1891.

The Private Street Works Act, 1892. Adopted April 4th, 1894.

Notification of Births Act, 1907. Adopted January 7th, 1914.

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

Public Health Acts Amendment Act, 1907, Section 51.

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 Longdendale Valley. 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 SEWERAGE.

The drains of the District are satisfactory. Salford sewage is conveyed to the Sewage Works at Weaste by a combined system of Sewers. The sewage is treated with Lime and Copperas, after which it is passed through settling tanks and thence through aerating filter-beds and humus tanks. The effluent from the humus tanks is discharged into the Manchester Ship Canal and the residual sludge carried out to sea by steamer.

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 employed in this connection consists of the Chief Inspector, a Deputy Chief Inspector, nine Assistant Inspectors, and one Lady Inspector.

The systematic inspection of the City was conducted during the year 1930 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 3,785, as compared with 4,063 received in 1929, also that 8,174 dwelling-houses were inspected during the year. The details of each section of the work will be found under the special heading.

TABLE G. 1.

COMMON LODGING HOUSES, 1930.

	Wards.				Total.
	Crescent.	St. Paul's.	St. Thomas's.	Trinity.	
Number on Register	7	1	1	5	14
Number added to Register in 1930....	..	..	..	..	..
Number removed from Register in 1930 ..	..	..	..	..	..
Number of Rooms.....	60	6	8	37	111
,, ,, Beds	294	25	23	497	839
Average Number occupied each night--Males	146	16	9	377	548
Females .....	..	..	..	..	..
Notices served on Landlords	5	1	1	1	8
,, ,, Keepers.....	..	..	..	..	..
Number of Day Inspections	197	28	35	101	361
,, Night ,, 	14	4	4	..	22

Common Lodging Houses.

There were 14 Common Lodging Houses on the register during the year, including Salford House in Bloom Street ; seven are in the Crescent Ward, five in Trinity, one in St. Paul's, and one in St. Thomas's Wards. These houses contain 111 rooms, with 839 beds. The average number of beds occupied per night was 548 for males and none for females. Three hundred and sixty-one inspections were made during the day time and 22 at night.

The addresses of and particulars relating to these lodging houses are as follows :—

Address.	Accommodation. Sleeping Rooms.	Lodgers.	Total number of lodgers who could be accommodated during the year.	Total number of lodgers accommodated during the year.
17, Bolton Street	5	49	17,885	14,319
61, Bury Street	7	33	12,045	8,100
32/34, Chapel Street	14	88	32,120	12,218
41A, Gravel Lane	5	42	15,330	10,826
"Salford House," Bloom Street...	6	285	104,025	91,662
21, East Ordsall Lane	2	16	5,840	3,409
113, Oldfield Road.....	7	27	9,855	4,263
1 and 1A, Park Place	24	125	45,625	19,503
2, Park Place	13	26	9,490	5,530
3, Park Place	4	43	15,695	5,089
13, Windsor	4	15	5,475	3,310
2, Comus Street	6	42	15,330	11,933
1/5, Travis Court	8	23	8,395	3,436
2, West High Street.....	6	25	9,125	5,821

The total number of lodgers who could be accommodated during the year, in all the houses, was 306,235, and the total number actually accommodated was 199,419, a difference of 106,816.

Of the 839 beds, an average of 548 was occupied each night, leaving an average of 291 beds empty.

The above figures show that although the lodging houses as a whole (excluding the Corporation's own institution—"Salford House") were occupied to only 53·3 per cent of their full capacity, "Salford House" itself was occupied to the extent of 88·1 per cent of its total accommodation, and this in spite of the fact that its charges are about 25 per cent higher than those obtaining in ordinary lodging houses.

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

Houses Sub-let in Lodgings.

There are 333 houses let in apartments in the City ; these contain 1,029 rooms. Twenty-four houses were registered during the year and three 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 1,059 inspections in the day time and 28 at night.

Throughout the year the District Inspectors have given much attention to the question of overcrowding as regards many of these houses.

The extreme difficulty of obtaining housing accommodation in Salford has deterred the Committee from taking action for overcrowding.

Seamen's Lodging Houses.

There were eight Seamen's Lodging Houses in the City on the Register during the year, containing 30 rooms and 85 beds. There have been nine applications for renewals and new licences. Two houses were given up during the year, one house was discontinued and one house newly licensed.

The Byelaws in force regulating these houses have been carried out, and the houses generally kept in good and clean condition. Fifty-two visits have been made during the day time and 18 visits during the night time.

The addresses of and particulars relating to these houses are as follows :—

Address.	Accommodation. Sleeping Rooms.	Lodgers.
129/131, Trafford Road	4	17
69, Monmouth Street	6	12
107/109, Garfield Street	8	16
53, Trafford Road	5	26
31, Gledhill Street	1	1
20, Gledhill Street	1	3
66, Monmouth Street	1	2
68, Monmouth Street	4	8

The keepers of these houses are not required to submit a Return of the number of Seamen sleeping on the premises, but it is the general impression from the visits made by the Inspectors that these houses are not used to the fullest extent. This is no doubt due to the slackness of trade in the shipping business, also to the increased proportion of American shipping manned by

American Crews who, whilst in Port, live and sleep on board.

Workshops.

At the end of the year there were 911 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.

Two hundred and ninety-one defects were found in the workshops, the particulars being given in Table B. The chief defect was want of cleanliness both in the workshops and bake-houses, which was found in 140 cases and 151 cases respectively. Twenty-three notices were served, and in the other cases the tenants were cautioned and the defects remedied.

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 165 visits have been paid.

During this year the Lady Inspector of Workshops has inspected 552 Fish and Chip Restaurants, where women are employed, to ascertain the conditions as to cleanliness and sanitation.

A number of these premises are still being found where the yard space has been enclosed, thereby preventing free ventilation to the sanitary accommodation. Where these have been found, the tenants have been warned, and the structures removed: 15 notices were served for other defects.

Factories, Workshops, Workplaces and Home-work.

A.—Inspection.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR
INSPECTORS OF NUISANCES DURING THE YEAR 1930

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecu- tions. (4)
Factories..... (Including Factory Laundries.)	34	8	..
Workshops (Including Workshop Laundries.)	3413	23	..
Workplaces (Other than Outworkers' prem- ises included in Part 3 of this Report.)	677	15	..
Total	4124	46	..

B.—Defects Found.

Premises. (1)	Number of Defects.			Number of Prosecutions. (5)	
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)		
<i>Nuisances under the Public Health Act—*</i>					
Want of cleanliness	208	208	4	..	
Want of ventilation.. ..	19	17	..	..
Overcrowding .....	..	..	..	..
Want of drainage of floors	22	22	1	..	
Other nuisances	31	31	..	..
Sanitary accommo- dation	{ insufficient	5	5	4	..
	{ unsuitable or defective ...	2	3	3	..
	{ not separate for sexes	4	2	3	..
<i>Offences under the Factory and Workshop Act—</i>					
Illegal occupation of underground bake- house (s. 101) .....	..	..	..	..
Breach of special sanitary requirements for bakehouses (ss. 97 to 100).....	..	..	..	..
Other offences (excluding offences relat- ing to outwork which are included in Part 3 of this Report) .....	..	..	..	..
Total	291	288	15	.	

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

C.—Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.												OUTWORK IN UN- WHOLESOME PREMISES, SECTION 103.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.			
	Lists received from Employers.						Prosecutions.						Instances.			Prosecutions.			
	Sending twice in the year.		Sending once in the year.		Outworkers.		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.		Falling to keep inspection of lists.		Falling to send lists.		Number of Inspections of Outworkers' premises.		
	Lists.	Con- tractors.	Work- people.	Lists.	Con- tractors.	Work- people.	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
Wearing Apparel—																			
1. Making, &c.	32	22	90	2	1	1	182	86	.	.	.	155	.	.	.	.	.	.
2. Cleaning and washing	
Lace, lace curtains and nets..	
Artificial flowers	
Nets, other than wire nets...	
Tents	
Sacks	4	.	.	.	.	4	.	.	.	.	.	.
Furniture and upholstery	
Fur pulling	
Feather sorting	4	.	.	.	.	.	.	.	.	.	.	.
Umbrellas, &c.	
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	34	22	92	2	1	1	190	86	.	.	.	165	.	.	.	.	.	.

• List of Industries as prescribed by Home Office.

D.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year. (1)	Number. (2)
Tenement Workshops	10
Domestic Workshops	233
Laundries	13
Workshop Bakehouses.....	240
Other Workshops	415
Total number of Workshops on Register.. .	911

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)	13
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. In- spectors 12 Reports (of action taken) sent to H.M. Inspector 14*
Other.....	..
Underground Bakehouses (s. 101)—	
Certificates granted during the year .....	.
In use at the end of the year .....	..

* Including reports of action taken in cases notified in previous year.

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

Number of such premises in the district, 240.

Note as to their sanitary condition. Ground floor bakehouses—Good.

Action taken as to retail bakehouses in 1930, seven Notices served.

Action taken.	No. of Defects found.	Notices served.	Legal Pro- ceedings.	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 ..	151	1	..	148	
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, one not in use at present.

Number certified by District Council under Section 101 (2) in 1929, Nil.

BAKEHOUSES, 1930.

Registered	240
Added to Register	15
Discontinued	28
Changed Hands	16
Number of Underground Bakehouses Certified by Authority	1 but not at present in use.
Total Number of Ovens	330
Employees—Males	239
„ Females	439
Notices Served	7

Smoke Nuisance.

Particulars as to smoke nuisance caused by firms during the year 1930, and dealt with by the Health Committee :

Twelve Notices were issued under the Public Health Act.

There is a marked improvement in the emission of black smoke, partly owing to the depression in trade and also better supervision of the boilers by the men in charge. One firm was summoned by the Health Committee and fined 10s., an order to abate also being made.

During the year 3,331 smoke observations have been made as against 3,305 in the year 1929, and 3,120 in the year 1928.

One hundred and twenty-four stokers and others were cautioned by the Inspector for negligence in firing the furnaces under their charge, at the same time 26 firms were reported to and dealt with by the Health Committee, also 26 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.

Classes for stokers were again formed at the Royal Technical College during the summer months, consisting of a course of 11 lectures in connection with Smoke

Abatement and Fuel Economy. These lectures had an average attendance of eight men from various firms in the City, and I am of opinion that the classes are yielding good results.

TABLE SHOWING THE NUMBER OF HALF-HOURLY OBSERVATIONS
TAKEN DURING THE YEAR 1930.

Minutes of Black Smoke emitted in half-an-hour.	No. of Observations taken.	Percentage to Total
No Black Smoke	2,518	75·6
One Minute	788	23·7
Two Minutes	11	00·3
Three Minutes.....	5	00·1
Over Three Minutes.....	9	00·3
Total Observations.....	3,331	100·0

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

The Byelaws 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 Byelaws as regards the regular removal of manure have been well observed.

Canal Boats Acts.

Number of canal boats inspected	168
Number of canal boats conforming to Acts	167
Number of canal boats with one or more infringements ..	1
Total number of infringements	1
Registration .....	..
Absence of certificates .....	..
Dilapidation of certificate .....	..
Marking	1
Overcrowding .....	..
Separation of sexes .....	..
Cleanliness .....	..
Ventilation .....	..
Ventilators obstructed .....	..
Painting .....	..
Provision of water vessel .....	..
Water vessels broken .....	..
Removal of bilge water .....	..
Boats defective and leaking .....	..
Dilapidation .....	..
Stoves defective .....	..
Stove pipes defective .....	..
Pumps defective .....	..
Admittance of Inspector .....	..
Notification of infectious disease .....	..
Certificates not identifying owners .....	..
Loading manure without tight bulkheads .....	..
Number of notices served .....	..

Other steps to secure compliance : None.

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 (number of persons)	835
Men found on the boats	312
Women found on the boats	30
Children under 12 years found on the boats	24

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	650
„ applications from householders	4
„ houses affected by the tests	851
„ notices and reports issued	352
„ notices and reports complied with	350
„ drain inlets opened and cleared	2,404

INSANITARY CONDITIONS FOUND.

Defects.

Number of drains wholly and partly choked	819
„ drains defectively constructed	270
„ gully traps badly laid	23
„ drains defectively trapped	21
„ waste pipes defectively trapped or connected to drains	23
„ downspouts connected to drains	21
„ soil pipes with leaking joints or defectively ventilated	41
„ defective water closets	89
Total defects	1,307

RECONSTRUCTION OF DRAINS AND THE CONSTRUCTION
OF NEW DRAINS.

Number of tests applied	564
„ houses affected	522
„ passage main drains affected	21

MODE WHEEL AMBULANCE AND
DISINFECTING STATION.

The Ambulance and Disinfecting Station situated in Mode Wheel Road is under the control of the Medical Officer of Health. The Station is used for the following purposes :—

(a) The disinfecting of bedding, clothing, etc., from the homes of persons suffering from infectious disease, by means of high-pressure steam disinfection.

(b) As a dépôt for the disinfectors employed in disinfecting houses, schools, and public institutions in which a case of infectious disease has occurred.

(c) As a station for the bathing of verminous persons and the disinfection of their clothing.

(d) The bathing of persons suffering from scabies (particularly school children), and the disinfection of their clothing.

(e) The bathing of midwives who have been in contact with cases of puerperal fever, and the disinfection of their clothing and instruments.

(f) As a garage for the three motor ambulances required to take persons to and from Hospital and

the three motor vans used to collect and deliver bedding, etc., before and after disinfection, and in connection with the cleansing of conveniences. The Station is also used as a repair depôt for the whole of the motor vehicles used in the Department.

The Staff employed at the Station is as follows :—

Foreman.
Caretaker.
Motor Mechanic.
Four Disinfectors.
Four Drivers.

The following is a summary of the work done at the Mode Wheel Disinfecting Station during 1930 :—

	AMBULANCES.		
	Salford Cases.	Out-District Cases.	Total Cases.
Number of journeys removing patients to Hospital.....	1,607	402	2,009
Number of journeys removing patients from Hospital to their homes.....	544	—	544
Number of houses visited by ambulances removing bedding for disinfection.	788	67	855
	VANS.		
Number of houses visited by vans returning bedding after disinfection	1,957	190	2,147

In addition, 642 journeys to Hospital for purposes other than removal of patients were made by motor vehicles, and 38 journeys were made for the purpose of taking home children after operative treatment for tonsils and adenoids. 258 journeys were made in connection with the treatment of children suffering from scabies. There were also 680 journeys for miscellaneous purposes.

DISINFECTIONS.

Number of houses disinfected	2,176
„ rooms disinfected	5,678
„ bundles of clothing and bedding disinfected..	3,863
„ books disinfected	413
„ schools disinfected	6
„ hospitals disinfected	67
„ ships disinfected	4

BATHING AND DISINFECTION OF CLOTHING.

Midwives	35
Smallpox convalescents	10
„ contacts	5
Verminous children	48
„ adults	—
Children suffering from scabies	2,044

PROPAGANDA.

A “Health Week” was organised in Salford from 3rd to 9th February, 1930. The arrangements made included film lectures to schoolchildren, lectures to a number of local organisations, dinner-hour addresses to workpeople, and public lectures and film shows in large halls in the City. Great interest was aroused and excellent attendances were obtained, particularly at the Sunday meetings. Mr. T. Bowen Partington was again engaged as Official Lecturer and Organiser, and his services were highly appreciated. Dr. E. Tytler Burke, D.S.O., Venereal Diseases Medical Officer for the City, gave special addresses dealing with venereal diseases to the large audiences which assembled at the Scala Picture Theatre, Pendleton, on Sunday, the 9th February, 1930.

Sanitary Conveniences.

There are 21 conveniences for Males and three for Females in the City, under the control of the Health Committee, namely :—

SITUATION.	MALES.				FEMALES.		
	Urinal Stalls	Water Closets	Wash Basins	Attendant	Water Closets	Wash Basins	Attendant
Trinity Market	6	3	3	1	3	3	1
Trafford Road (Eccles New Road corner)	15	4	4	1	..	..	..
Trafford Road (Ordsall Park) ..	12	4	6	1	..	..	..
Church Street (near the corner of Broad Street).....	10	2	3	1	3	3	1
Cross Lane .....	..	..	..	..	4	4	1
Oldfield Road (Corner of Chapel Street)	6	..	..	..	..	..	..
Liverpool Street	4	..	..	..	..	..	..
Bolton Road (Junction of Claremont Road)	4	..	..	..	..	..	..
Broughton Road.....	16	..	..	..	..	..	..
Windsor Bridge	6	..	..	..	..	..	..
Blucher Street.....	8	..	..	..	..	..	..
Stevenson Street.....	3	..	..	..	..	..	..
Park Lane	5	..	..	..	..	..	..
Broad Street	3	..	..	..	..	..	..
Greengate Arch.....	6	..	..	..	..	..	..
Eccles New Road.....	6	..	..	..	..	..	..
Broughton Bridge	8	..	..	..	..	..	..
Frederick Road.....	4	..	..	..	..	..	..
Moor Lane	6	..	..	..	..	..	..
Cross Lane	5	..	..	..	..	..	..
Albert Park	6	..	..	..	..	..	..
Crescent, near Victoria Arch....	6	..	..	..	..	..	..

TABLE G. 3.
Cases heard before the Magistrates during 1930.

Offence.	No. of Cases.	Decision of Magistrates.	Total Fines (without costs).
			£ s. d.
For contravening the Transit of Animals Order of 1927 by failing to cleanse and disinfect a motor float before loading with cattle.	1	Fined £10.	10 0 0
For contravening the Animals Landing from Ireland Order, 1923, by unlawfully moving swine within a period less than 27 days after arrival at place of destination specified in the prescribed licence without obtaining a further licence authorising their movement.	1	Fined £1 and £1 ls. costs.	1 0 0
For contravention of the provisions of Section 14 of the Milk and Dairies (Consolidation) Act, 1915 (obstructing Officers of the Corporation in the execution of the powers under the Act).	1	Dismissed.	..
For selling milk deficient of fat.	3	Fined £2 each.	6 0 0
Farmer consigning milk deficient of fat.	2	Fined 10s. each.	1 0 0
For selling whisky containing added water which reduced it to below standard of 35 degrees under proof.	1	Fined £3.	3 0 0
For contravening Section 73 of the Public Health Act, 1925, by exchanging toys for rags in the public street.	1	Fined 40s. or 21 days.	2 0 0
For failing to comply with a Notice respecting the emission of dense black smoke from a mill chimney.	1	Fined 10s. and Order to Abate made.	0 10 0
For failing to comply with a Notice under the Salford Improvement Act, 1867, to repair and make good the eaves-gutters at certain premises.	1	Fined £1 and £1 ls. costs.	1 0 0
For failing to comply with a Notice issued under the Byelaws with respect to Streets and Buildings and Sanitary Requirements made by the Corporation.	1	Fined £1 and £1 ls. costs.	1 0 0
Carried forward	13		£25 10 0

CASES HEARD BEFORE THE MAGISTRATES DURING 1930—*Continued.*

Offence.	No. of Cases.	Decision of Magistrates.	Total Fines (without costs).
Brought forward.....	13		£ s. d. 25 10 0
For failing to comply with Notices issued under the Public Health Act, 1875, respecting certain sanitary defects.	2	One fined £2 2s. costs and Order to Abate made. One fined 10s. 6d. costs. Work done.	..
For failing to comply with an Order to Abate a nuisance under the Public Health Act.	1	Fined £17, or 51 days' imprisonment in default of payment.	17 0 0
	16		£42 10 0

(B)—Housing Conditions.**GENERAL OBSERVATIONS.**

The population of the City is largely industrial. A considerable portion of the area is occupied by cotton factories and engineering works, with collieries on the outskirts. The principal docks and a portion of the Manchester Ship Canal are situated in Salford.

The oldest part of the City is the Greengate district. The average age of the houses in this district is about 150 years. They consist very largely of the small cottage type. In view of the age of the property, considerable attention is required to keep it in a fair state of repair. The majority of the houses in the remainder of the City have been built during the last sixty years.

The last survey of the houses in accordance with the Town Planning Act was completed in 1920 and shows the types of houses to be as follows :—

Number of houses with 2 rooms.....	384
" " " 3 " 	410
" " " 4 " 	16,894
" " " 5 " 	6,700
" " " 6 " 	13,933
" " " over 6 rooms	10,910

SUFFICIENCY OF SUPPLY OF HOUSES.

Salford is a very thickly-populated city, and in spite of the diminution of the population by 10,603, as revealed by the recent census, the density of the population is still high, namely, 42·9 persons per acre of the total acreage, including parks, gardens, playing fields, the race-course, business premises, roads and land unfit for

building purposes. While comparing the total number of houses in Salford with the total population, the average occupation per house is not excessive, the fact remains that overcrowding does exist, to a considerable extent, in certain localities.

During the last five years, 1,414 applications were received from persons who, in the majority of cases, were living in lodgings and who considered that they were justified in making application for the tenancy of a house owned by the Corporation. These cases were all inquired into and 1,039 certificates were granted. These certificates are granted by the Medical Officer of Health in cases where, in his opinion, serious overcrowding exists. By this means it has been possible to distinguish between applicants for Corporation houses who are not living under overcrowded conditions and those who are, and to place the latter group on a waiting list. From the fact that in five years 1,039 of these certificates were granted out of 1,414 applications, it is proved that considerable overcrowding exists. In addition, from systematic inspection of different districts from time to time, there is ample evidence to confirm this statement.

The recent population census figures indicate that a portion of the population of Salford has assisted in solving the housing problem for itself by over flowing into the adjacent less thickly populated districts, and an impetus to this tendency has undoubtedly been given by the greatly improved transport facilities which have developed of recent years. There still remains, however, a considerable number of people who, chiefly on account

of the cost of travelling, wish to live near their work, and it is almost entirely amongst this section of the population that overcrowding exists.

There is undoubted need for additional houses at reasonable rents in Salford, but, unfortunately, there are no large building sites available for extensive housing schemes within the city boundaries. The few small sites which still remain will be required for the re-housing of tenants to be displaced from unhealthy areas. Inability to pay the rents of existing houses may be ruled out as a contributory cause of overcrowding, as the number of houses available for renting is very small.

Special action to relieve overcrowding, during 1930, was taken as follows:—

Thirty-six Houses on Gerald Road Site.

2/24, Manifold Street,

1/23, Manifold Street,

2/24, Rugeley Street.

On May 24th, 1930, the Ministry of Health sanctioned borrowing powers for the sum of £15,400 for the purpose of building thirty-six houses to re-house the tenants of 74, 76, 76A and 78, Seedley Road, Pendleton. The Seedley Road property was sublet to a considerable number of families. It is understood to be the intention of the Sutton Trust Co. to demolish the houses and to build on the cleared and adjoining land a number of tenements or flats.

The building of the houses, Rugeley Street and Manifold Street, was commenced on the 26th June, 1930, and completed in December, 1930. These houses consist of 6 blocks of 6 houses to each block, and are of exactly the same type as the 76 houses built in connection with the Springfield Terrace Scheme on the same plot of land. The number of houses equals 19.91 per acre. The moving of the Seedley Road tenants was commenced in December and completed before the end of the month. The population removed from Seedley Road consisted of 18 families, comprising 37 adults, 12 children over 14 years of age and 53 children under 14 years of age.

In addition to the above, a family was removed from lodgings in 39, Greengate, to the same site. This family was forced to vacate a house in Gravel Lane owing to its collapse. The family consists of three adults and three persons between 14 and 21 years of age.

Owing to the serious dilapidation and dangerous condition of Nos. 1, 2, 3, 4 and 6, Bury's Court, the tenants of these houses were also re-housed on the Gerald Road Site during December. The five families occupying these houses consist of 13 adults, six persons over 14 and nine children under 14 years of age, a total of 28 persons.

Attempts were made to induce the occupiers of a number of houses which were in an insanitary condition and conveniently grouped for the purposes of demolition to occupy the 12 remaining houses on the Gerald Road Site. It was found that these people were not agreeable to remove, as the houses in which they lived were let at

a low rent and they would be unable to pay the higher rent for the new houses. It was finally agreed that the letting of these houses should be transferred to the City Treasurer, with a view to letting them to families living under overcrowded conditions who could afford to pay a higher rent. All the 36 houses are now occupied and the five houses in Bury's Court and the one in Gravel Lane have been demolished.

FITNESS OF HOUSES.

No special difficulties have been found in action under the Public Health Acts. The property owners in general show a disposition to comply with the Notices served under these Acts.

The whole of the property in the City is supplied on the constant system with water from the Corporation mains. With the exception of a very few houses in common courts, each house is supplied with an internal water supply.

With the exception of about six houses, at present provided with pail or privy accommodation, and where, owing to their situation it has been found impossible to provide adequate drainage for a water closet, every house in the City is provided with water closet accommodation, about 650 houses being provided with w.c.'s used in common and the remainder with private w.c. accommodation within their own curtilage.

UNHEALTHY AREAS.

In October, 1919, particulars of 21 areas (pink) were submitted to the Ministry of Health in connection with re-housing schemes. Since that time, all the houses on one of these areas have been demolished and the occupants (324 persons) have been housed in new houses provided by the Local Authority.

A five-yearly programme has already been submitted to the Ministry in which three of these areas are involved, and in connection with one of the areas a representation will shortly be made to the Local Authority.

BYELAWS.

In general, the existing Byelaws and Local Acts are found to be adequate, and no special difficulties have been experienced in their enforcement.

Housing, Town Planning, &c., Act.

HOUSE-TO-HOUSE INSPECTIONS UNDER THE HOUSING CONSOLIDATED REGULATIONS, 1925.

One ward, namely, Albert Park, was examined during 1930 in accordance with the above-named Regulations, the total number of houses examined being 4,200.

It is interesting to note that of these only 20 had less than four rooms and all but seven were provided with a separate water closet.

Full details will be found in the following table :—

HOUSING, TOWN PLANNING, &c., ACT.

HOUSE-TO-HOUSE INSPECTIONS, 1930.

	ALBERT PARK WARD.
Number of houses inspected	4200
Number of dwellings with 1 room	1
" " 2 rooms	8
" " 3 rooms	11
" " 4 rooms	504
" " 5 rooms	359
" " 6 rooms	1636
" " over 6 rooms	1681
Closest Accommodation :—	
Water Closet	4200
Pail Closet	—
Privy Midden	—
Number of houses with closet accommodation in common with other dwelling	7
Ash Accommodation :—	
Metallic Receptacle	4200
Tub	—
Ashpit	—
Unsatisfactory	—
In common	—
No accommodation	—
Defects :—	
Insufficient light and ventilation	11
Defective drainage	—
No drainage	—
Serious dilapidation	—
Back-to-back houses	—
Houses unfit for habitation	—
Number of representations made to Local Authority with a view to making Closing Orders	—
Number of Closing Orders made	—
Number of dwelling-houses put into fit state for human habitation after making Closing Orders	—
Defects remedied without Closing Orders	—

Housing Conditions.

YEAR ENDED 31ST DECEMBER, 1930.

(a) GENERAL STATISTICS.

Area (acres)	5202
Population (1930) (Registrar General's Estimate).....	230100
Number of Inhabited Houses (1930-1931, April).....	50927
Number of families or separate occupiers (1930)	—
Rateable Value (1930-1931, April).....	£1118688
Sum represented by a penny rate (Estimate).....	£4300

HOUSING.

Number of new houses erected during the year :—

(a) Total.....	182
(b) As part of a municipal housing scheme	60

1. Unfit dwelling-houses.

Inspection—

(1) Total number of dwelling-houses inspected for housing defects (under Public Health Acts)	8174
(2) Number of dwelling-houses which were inspected and recorded under the Housing Consolidated Regulations, 1925.....	4200
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation.	1
(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.....	3970

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.....	1246
--	------

3. Action under Statutory Powers.

A) Proceedings under Section 3 of the Housing Act, 1925 ...	Nil.
(1) Number of dwelling-houses in respect of which Notices were served requiring repairs	Nil.
(2) Number of dwelling-houses which were rendered fit :—	
(a) By owners	Nil.
(b) By Local Authority in default of owners	Nil.
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	Nil.

HOUSING CONDITIONS—*Continued.*

(B) Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which Notices were served requiring defects to be remedied	2563
(2) Number of dwelling-houses in which defects were remedied :—	
(a) By owners.....	1650*
(b) By Local Authority in default of owners	Nil.

(C) Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925.

(1) Number of representations made with a view to the making of Closing Orders.....	Nil.
(2) Number of dwelling-houses in respect of which Closing Orders were made	Nil
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit..	Nil.
(4) Number of dwelling-houses in respect of which Demolition Orders were made	Nil.
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil.

* Including some houses repaired in 1930 in respect of which Notices were issued in 1929.

TABLE G. 2.**NEW HOUSES ERECTED AND HOUSES DEMOLISHED IN 1930.**

Wards.	Houses erected.	Houses demolished.
Kersal	27	—
Albert Park	—	.. —
Mandley Park	—	.. —
St. Matthias'	—	.. 6
Trinity	—	.. 1
Crescent	14	.. —
Regent	—	.. —
Ordsall Park	—	.. —
Docks	—	.. —
Charlestown	60	.. —
St. Thomas'	—	.. —
St. Paul's	—	.. —
Langworthy	—	.. —
Seedley	20	.. —
Weaste	13	.. —
Claremont	48	.. —
	—	—
	182	.. 7
	—	—

Of these, 60 have been erected under Housing Schemes of the Corporation. The remaining 122 have been built by private enterprise.

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

During the year one application under the above Act was received for a Certificate as to the house being either not reasonably fit for habitation or not in a reasonable state of repair. A certificate was granted in this case.

Certificates as to Housing Conditions.

Under the terms of the circular letter issued by the City Treasurer, with reference to the issue by the Medical Officer of Health of certificates to the effect that certain families were not living under sanitary conditions, 223 applications have been made and in 155 cases certificates were issued.

A considerable amount of the time of the Sanitary Inspectors was occupied during 1930 in investigating applications for the issue of these certificates, as it is necessary in each case to measure up the existing accommodation in order to find the cubic capacity of the air space available.

Houses Unfit for Human Habitation.

During the year one house in St. Matthias' Ward was closed as unfit for human habitation under the provisions of the Salford Improvement Act, 1870.

REGISTER OF WORK DONE—YEAR ENDING DECEMBER 31ST, 1930.

No. of Complaints received	3785
Inspections of { Dwelling-houses	8174
" " " (under Housing, &c., Act).....	4200
Schools	729
Factories.....	34
Canal Boats	168
Common Lodging-houses (Day).....	361
" " " (Night)	22
Sub-let " " (Day).....	1059
" " " (Night)	28
Seamen's Lodging-houses (Day).....	52
" " " (Night)	18
Van Dwellings.....	320
Tips	19
Bakehouses (Day)	941
Workshops (Day).....	1497
" (Night)	315
Domestic Workshops	624
Restaurant Kitchens	125
Outworkers' Premises	165
Ice Cream Shops	942
" Stalls	21
Fried Fish Dealers.....	552
Re Smallpox Contacts	1201
Miscellaneous	6260
Laundries	165
Urinals—Public	450
Stables	1075
Re Infectious Diseases	1788
Re Verminous Children.....	21
Theatres, Cinemas, &c. (Day)	49
" " (Night)	107
Re-inspections	16088
Action taken .. { Statutory Notices issued	2360
" " " complied with.....	2506
" " " cancelled	58
Informal Notices issued.....	1461
" " " complied with	1424
" " " cancelled	90
Letters written	3783
Summonses issued	16

REGISTER OF WORK DONE—*Continued.*

Disinfection—Houses Disinfected	2096
House Drains .. {	
Repaired	204
Reconstructed	476
Trapped	177
Downspouts disconnected from	—
Blockages removed	1673
Eaves, Gutters, & Downspouts, Passages and Yards	
Blockages removed	66
Inlets opened	2404
Water Closets .. {	
New, provided	13
Ventilated	—
Ash Receptacles {	
New, provided	1173
Bricked up or demolished	125
Limewashed ... {	
Dwelling-houses	—
Lodging-houses	14
„ Sub-let	101
„ Seamen's	8
Bakehouses	430
Workshops	92
Workshops (Domestic)	23
Outworkers' premises	14
Laundries	7
Newly Licensed Common Lodging-houses	14
„ „ Seamen's „	8
Newly Registered .. {	
Lodging-houses Sub-let	24
Workshops	5
„ (Domestic)	1
Bakehouses	15
Second-hand Goods Stores	9
Ice Cream Shops	—
Accumulations Removed {	
Manure and Refuse	55
Stagnant Water	9
Smoke Nuisance {	
Observations taken	3331
Notices served	12
Cautionary Notices served	26
Passages and Yards..... {	
Flagged	—
Repaired	442
Drained	—
Bundles of Infected Bedding and Clothing {	
Stoved	3254
Destroyed	87
Animals removed from improper situations.....	—
Overcrowding of dwellings abated.....	10
Houses repaired by owners, after Formal Notice.....	1650
„ „ „ „ „ Informal „	1246
Canal Boats painted.....	1
„ defective.....	—
„ repaired	1

(C)—General Provision of Health Services.

Hospital Services.

The people of Salford avail themselves of the hospital accommodation provided by the Salford Corporation and of the voluntarily provided hospitals of both Salford and Manchester. The interleaved tabulation contains particulars of the hospital services available for Salford residents, distinguishing between hospitals provided by the Corporation and voluntary institutions.

Poor Law Relief.

The amount distributed by way of Poor Law relief in Salford during 1930 was £79,259.

Particulars relating to the Poor Law Medical Out-relief Districts are set out in the appended tabulation.

MEDICAL OUT-RELIEF DISTRICTS.

No. of District.	Area served.	District Medical Officer.
1.	<i>District</i> —Such portion of the former Township of Salford as is comprised within the following boundary :—Commencing at a point in the River Irwell at the Salford Royal Hospital end of the Crescent, easterly along White-cross Bank and Chapel Street, thence along St. Stephen Street, King Street, Norton Street, and Greengate to the River Irwell at the Salford Bridge; thence to the left along the River Irwell and the pre-existing Township boundary to the point first named.	Dr. Stanley Hodgson.

STATEMENT AS TO HOSPITAL SERVICES AVAILABLE FOR SALFORD RESIDENTS.

A.—HOSPITALS PROVIDED BY THE SALFORD CORPORATION.

Name and situation of Hospital.	Purpose.	Services and Number of Beds provided.			Classification and Number of Medical and Nursing Staff.		Arrangements for Employment of Consultants.	Special Departments.	Arrangements for Surgical Operations.	Arrangements for Pathological Examinations.
		Services.	Beds.		Classification.	No.				
Hope Hospital, Pendleton, Salford.	General	General Medical	Male 97	Female 99	Medical Superintendent	1	Consultants appointed as follows: (a) Varying Physicians. (b) Varying Specialist in Children's Diseases. (c) Varying Gynaecologist. (d) Varying Orthopaedic Surgeon.	X-Ray. Massage. Electro-therapeutics. Ultra-violet radiation. Orthopaedic. Pathological. Electro-cardiographic.	Surgical operations for affections of cases are performed at the Hospital.	All pathological material examined either in Municipal Laboratory or in the Hope Hospital Laboratory under direction of City Pathologist.
		General Hospital	70	100	Deputy Medical Superintendent	1				
		Children	20	20	Anaesthetist and Radiologist	1				
		Maternity	20	20	Resident Medical Officer	1				
		Maternity Cots	20	20	Resident Surgical Officer	1				
		Tuberculosis	20	20	Assistant Medical Officer	1				
		Chronic Sick	20	20	Assistant Medical Officer	1				
		Mental	20	100	Matron and Nursing Staff	231				
		Mental Deficiency	20	20						
		Total			1,823					
Lidwell Sanatorium, Pendleton, Salford.	Infectious Diseases	Ordinary Infectious Diseases ..	20	20	Medical Superintendent	1	Consultants appointed as follows: (a) For cases of Typhoid Fever and Pyrexia. (b) Varying Aural Surgeon. (c) Other Consultants called in as required.		Surgical operations for affections of the ear, nose and throat are performed at the Sanatorium.	Pathological examinations are carried out at the Municipal Pathological Laboratory.
		Typhoid	20	20	Assistant Medical Officer	1				
		Paratyphoid and Pyrexia	20	20	Matron and Nursing Staff	60				
		Total			200					
St. Mary Sanatorium, Margate, Cheshire.	Tuberculosis		20	20	Medical Superintendent	1			No facilities provided. Cases requiring surgical treatment are transferred to other institutions.	
					Matron and Nursing Staff	12				
Roxbury House and Balcony Hospital, Pendleton, Salford.	Maternity Cases and Sick Infants	Maternity	20	20	Medical Officer (part time)	1	Consultants appointed for cases of Typhoid Fever and Pyrexia.	Artificial Sunlight.	No facilities provided. Cases requiring surgical treatment are transferred to Hope Hospital.	
		Infants	20	20	Matron and Nursing Staff	12				
		Total			20					
Pendleton Park Hospital, Salford.	Scalpless Infection Hospital		20	20	Staffed as required.					
Ratcliffe Clinic, Salford.	Venereal Diseases	Medical and Surgical	20	20	Staffed by Clinic Staff as required.				Surgical operations are performed at the Clinic.	Pathological examinations are carried out at the Municipal Pathological Laboratory.
Total Number of Beds provided by Salford Corporation					1,553					

B.—VOLUNTARY HOSPITAL SITUATED IN SALFORD.

Name and Situation of Hospital.	Purpose.	Services and Number of Beds provided.				Special Departments.
		Service.	Beds.			
Salford Royal Hospital, Salford.	General	General Surgical	Male. 27	Female. 26	Total. 53	X-Ray. Orthopaedic. Massage. Ear, Nose and Throat. Genito-Urinary. Cardiographic. Pathological. Artificial Sunlight. Physio-therapeutic. Dental. Ophthalmic.
		General Medical	21	34	55	
		Venereal Diseases	4	4	8	
		Children's Cots, Medical and Surgical	—	—	13	
		Observation Beds	—	—	3	
		Total			204	

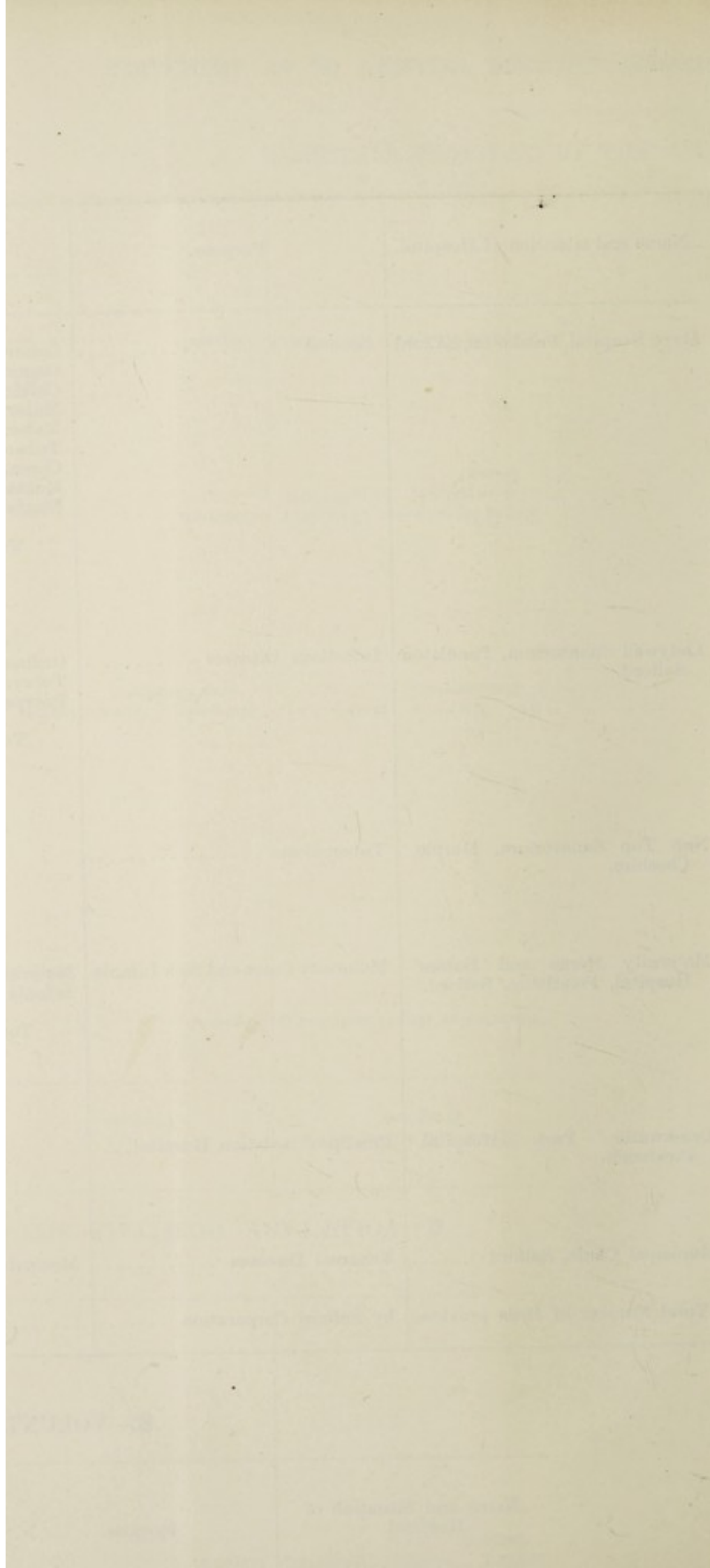
SUMMARY SHOWING INSTITUTIONAL ACCOMMODATION WHICH MAY BE USED BY SALFORD RESIDENTS.

Service.	Institutions provided by Salford Corporation.	Voluntary Institutions in Salford.	Voluntary Institutions outside Salford, but used by Salford residents.	Total.
General Medical	170	60	270	500
General Surgical	170	170	400	740
Children	140	10	304	454
Maternity	40	10	90	140
Maternity Cots	20	10	30	60
Tuberculosis	230	10	230	460
Chronic Sick	140	10	140	290
Mental	140	10	140	290
Mental Deficiency	17	10	17	44
Ordinary Infectious Diseases	217	10	217	444
Paratyphoid and Typhoid	7	10	7	24
Scalpless	40	10	40	90
Venereal Diseases	6	10	6	22
Ear, Nose and Throat	10	10	10	30
Gynaecological	10	10	10	30
Skin Diseases	10	10	10	30
Ophthalmic Diseases	10	10	10	30
Ophthalmic Examination	10	10	10	30
Radiation Treatment	10	10	10	30
Observation Beds, etc.	10	10	10	30
Total		1,020	304	1,324

C.—VOLUNTARY HOSPITALS SITUATED OUTSIDE SALFORD BUT USED BY SALFORD RESIDENTS.

Name and Situation of Hospital.	Purpose.	Services and Number of Beds provided.			Special Departments.
		Service.	Beds.		
Manchester Royal Infirmary.	General	General Medical	Male.	Female	X-Ray (with Light Therapy and Deep Therapy). Massage (with Douching, Electrotherapeutics, Electric Heat, etc.). Cerebral Library. Tuberculosis. Venereal Diseases. Ophthalmic. Skin Diseases. Neurological Surgery.
		General Surgical	130	140	
		Accident	20	20	
		Gynaecological	20	20	
		Observation	20	20	
		Children under 7 (pauper)	20	20	
		Total	230	240	
St. Mary's Hospital, Manchester.	Maternity, Gynaecological and Children.	Maternity	20	20	Massage. Artificial Sunlight. Venereal Diseases (Out-patients only).
		Gynaecological	20	20	
		Children	20	20	
		Total	60	60	
Royal Manchester Children's Hospital, Finsbury, Lancs.	Children	Medical	20	20	X-Ray. Massage (with Electrical and Gymnastic Apparatus). Artificial Sunlight. Orthopaedic. Pathological.
		Surgical	20	20	
		Isolation	20	20	
		Total	60	60	
Aspinall Hospital, Manchester.	General.	General Surgical	30	30	X-Ray. Massage. Pathological. Cardiographic. Orthopaedic. Gynaecology. Venereal Diseases.
		General Surgical (Children)	10	10	
		General Medical	10	10	
		General Medical (Children)	10	10	
		Total	60	60	
Manchester Victoria Memorial Jewish Hospital, Chorlton, Manchester.	General.	General Medical	10	10	X-Ray. Artificial Sunlight. Asthma. Gynaecological. Ear, Nose and Throat. Orthopaedic. Massage and Electrical. General Surgical. General Medical.
		General Medical (Cots)	10	10	
		General Surgical	10	10	
		Ear, Nose and Throat	10	10	
		Total	40	40	
Manchester Northern Hospital for Women and Children, Chorlton Hill Road, Manchester.	Women and Children	Gynaecological	20	20	Dental. X-Ray. Massage. Artificial Sunlight.
		Children	20	20	
		Medical	20	20	
		Total	60	60	
Manchester and Salford Hospital for Skin Diseases, Quay Street, Manchester.	Skin Diseases	Skin Cases	20	20	X-Ray. Artificial Sunlight. Venereal Diseases. Tuberculosis of Skin.
		Children	20	20	
		Total	40	40	
Manchester Ear Hospital, Grosvenor Square, Oxford Road, Manchester.	Diseases of the Ear	General	20	20	
		Children	20	20	
		Total	40	40	
Dental Hospital of Manchester, Oxford Road, Manchester.	Dental Treatment	General	20	20	Conservation. Prosthesis. Orthodontia. Anæsthetic and Extraction. X-Ray. Pathological.
		Children	20	20	
		Total	40	40	
Manchester Royal Eye Hospital, Oxford Road, Manchester.	Eye Cases	Ophthalmic	20	20	Ophthalmic Examination. X-Ray. Pathological Laboratory.
		Ophthalmic, Children	20	20	
		Ophthalmic Examination (Children and Adults)	20	20	
		Private Patients	20	20	
		Total	80	80	
Manchester and District Radiation Institute, Nelson Street, Manchester.	Radiation Treatment	General	20	20	
		Children	20	20	
Total number of Beds provided by Voluntary Hospitals, outside Salford, used by Salford Residents					1,310

NOTE.—It should be clearly understood that apart from the accommodation provided by the Salford Corporation, the accommodation referred to in the above summary is available for the residents of Manchester and contiguous areas. Reliable information as to the proportionate use of outside institutions by Salford residents is not available.



No. of District.	Area served.	District Medical Officer.
2.	<i>District</i> —All that part of the former Township of Salford comprised within the following boundary :—Commencing at Windsor Bridge, thence along the Manchester, Bury and Bolton Canal to the pre-existing boundary of the Townships of Salford and Pendleton, along such boundary through Peel Park to the River Irwell, along the River Irwell to a point nearest the Crescent, thence along the Crescent and Chapel Street to St. Stephen Street, along St. Stephen Street, King Street, Norton Street, Greengate and Chapel Street to Salford Bridge, to the right along the River Irwell to the Manchester, Bury and Bolton Canal, and along such Canal to the point first named.	Dr. Stanley Hodgson.
3.	<i>District</i> —All that part of the former Township of Salford comprised within the following boundary, viz. :—Commencing at Regent Bridge, along the centre of Regent Road, Trafford Road, and Broadway, to the site of the old Racecourse, thence along the northern boundary of such site to the Manchester Ship Canal, thence along the said Ship Canal and the River Irwell to the point first named.	Dr. S. J. Yeates.
4.	<i>District</i> —Commencing at Windsor at the point dividing the former Townships of Pendleton and Salford, thence along the pre-existing Township boundary to the Manchester, Bury and Bolton Canal, along such Canal in a southeasterly direction to the River Irwell, along the River Irwell to Regent Bridge, thence along Regent Road to Trafford Road, along Trafford Road and Broadway and the north-west side of the site of the old Racecourse to the Manchester Ship Canal, along the said Ship Canal to the boundary of the former Townships of Pendleton and Salford; and thence along such boundary to the point first named.	Dr. S. J. Yeates.
5.	<i>District</i> —The whole of the former Township of Pendleton.	Dr. H. Yearnshaw.
6.	<i>District</i> —The whole of the former Township of Broughton.	Dr. T. Waycott Chaff.

This service is administered by the Public Assistance Committee, and I am informed by the Public Assistance Officer that no changes of note in its administration have occurred since 1st April, 1930.

Destruction of Rats and Mice.

I am indebted to the Superintendent of the Lighting and Cleansing Department, Salford, for the following information, namely :—

As in previous years, the Professional Ratcatcher employed by the Lighting and Cleansing Committee of the Corporation has been fully employed during the year, there being constant requests for his services in the laying of poisons, baits, setting of traps, operating the gassing machine and advising as to the best means of ratproofing.

In the course of the year 798 visits were made to dwelling-houses, shops, offices, schools, works, and stores, and 6,717 poisoned baits were laid, whilst 906 live rats were caught by traps, dogs, cats, etc.

The presence of rats on premises has in many cases been the means of drawing attention to defects of a sanitary nature, and in these cases the co-operation of the Medical Officer of Health and City Engineer's Department has been sought, and the defects remedied.

The tips and dumps of the Corporation are kept under strict observation with a view to the prevention of the aggregation of rats.

At the request of the Ministry of Agriculture and Fisheries, Salford took part in the National Rat Week which was held during the week commencing 3rd November. Although advertisements were placed in

local papers and posters placarded on hoardings and public buildings of the City inviting the co-operation of owners and occupiers of premises, very few enquiries were received during Rat Week owing to the fact that it is becoming more generally known that the work of rat repression is carried on by the Department throughout the year.

Local Government Act, 1929.

Under the above-mentioned Act the whole of the functions of the former Board of Guardians were transferred to the Corporation as from 1st April, 1930. Under Section 2 of the Act the following services fell within the control of the Health Committee, viz. :—

- (a) Functions under Part I. of the Children Act, 1908, which were required to be discharged as functions under the Maternity and Child Welfare Act, 1918 ; and
- (b) Functions relating to Vaccination which were required to be discharged as functions relating to public health.

Children Act, 1908.

The work involved under Part I. of the Children Act, 1908, has been carried out by the Staff of Health Visitors employed in the Maternity and Child Welfare Department.

Vaccination.

There are four Vaccination Districts within the City of Salford, for each of which a Public Vaccinator was employed by the Board of Guardians. As required by

the Ministry of Health, new contracts were entered into with these Public Vaccinators as from 1st April, 1930, and the Vaccination Districts remained unchanged.

Prior to the 1st April, 1930, two Vaccination Officers were employed in respect of the Salford Union (which included Pendlebury). The district of one Vaccination Officer was wholly within the City of Salford; that of the other Vaccination Officer was partly within and partly without the City. These Officers have continued to act under the control of the Medical Officer of Health (who has been appointed Supervising Vaccination Officer), so far as their work within the boundaries of Salford is concerned, and an arrangement was arrived at with the Lancashire County Council as to the Officer whose district was situated partly in Pendlebury and who has continued to act for that district.

As required by the Act, an administrative scheme for discharging the functions transferred to the Council was prepared by the Council, which received the approval of the Minister of Health on 31st October, 1929.

By this scheme it was provided :—

- (a) That the provision of milk or other food for expectant and nursing mothers and children under the age of 5 years medically certified to need additional nourishment, should be provided exclusively by virtue of the Maternity and Child Welfare Act, 1918.

- (b) That a Public Assistance Committee, consisting of 21 members of the Council, should be constituted, to whom were delegated all the functions transferred to the Council under Part I. of the Act, other than those specified in Section 2 referred to above.

With a view of securing a certain measure of co-ordination in hospital administration, however, it was further provided that the functions of the Public Assistance Committee relating to the treatment and maintenance of persons in Hope Hospital should be discharged "on behalf of and subject to the general direction and control of the Public Assistance Committee by the Health Committee."

The area formerly comprised within the Salford Union included Pendlebury, and Hope Hospital, therefore, prior to 1st April, 1930, provided accommodation for poor-law patients from Pendlebury as well as from Salford. After the passing of the Local Government Act, 1929, it became necessary for the Lancashire County Council and the Salford Corporation to come to an agreement regarding the use of the Hospital. Under an agreement dated 12th September, 1930, Hope Hospital was transferred to the Salford Corporation, subject to certain financial arrangements specified in the agreement, and the Salford Corporation undertook to treat such poor-law patients from the area of the Lancashire County Council as might be sent by order of the County Council during a period of two years from the 1st April, 1930, and thereafter

until the expiration of one year's notice to terminate the agreement given by either side. The Salford Corporation retained a discretionary right, however, as to the selection of the Institution to which such persons should be sent for treatment, and a right to refuse admission to any person suffering from an infectious disease other than an industrial disease.

The accommodation available in Hope Hospital at 1st April, 1930, may be summarised as follows:—

Services.	No. of Beds.
General medical	195
„ surgical	170
Maternity	33
Tuberculosis	50
Chronic Sick	182
Mental	187
Mental Deficiency	17
Maternity Cots	36
Children	165
Total.....	1035

To this accommodation have since been added 6 beds for the treatment of female patients and children suffering from Venereal Diseases. Prior to 1st April, 1931, the Salford Board of Guardians had begun the erection of an extension to Hope Hospital containing 256 beds, in order to relieve overcrowding in the existing Hospital

and to accommodate patients now housed in the Temporary Hospital, Eccles New Road, Salford, and it is expected that this extension, together with the ancillary services, such as the extension to the Nurses' Home and the new Boiler House and the engineering services, will be completed during the autumn of 1931.

As indicated above, Hope Hospital continues to be treated as a Poor Law Hospital, although the immediate administration of the Hospital has been vested in the Health Committee, and the Hope Hospital Sub-Committee has acted as the House Sub-Committee for this Institution. At the time of writing, no decision has been arrived at as to the future appropriation of Hope Hospital under the Public Health Acts.

Owing to the fact that all the Corporation's institutions have been very fully occupied, it has not been found possible to arrange for any important measures of co-ordination of medical services, beyond the provision of a few beds for the treatment of female patients and children suffering from venereal diseases in connection with the work of the Municipal Clinic. The purchasing of hospital supplies, including provisions, has to a great extent been incorporated with the activities of the Stores Sub-Committee of the Health Committee, which purchases the requirements of the other Institutions of the Council.

The total hospital accommodation provided by the Corporation and by voluntary institutions in the locality is shown in the tabular statement interleaved opposite page 62.

Conversations have taken place with representatives of the voluntary hospital of the City, as provided by Section 13 of the Local Government Act, 1929, and the Health Committee have made an inspection of the Salford Royal Hospital at the invitation of the authorities of that Hospital. It is expected that further discussions will take place at a later date.

Vaccination.

As indicated in the Section of this Report dealing with the Local Government Act, 1929, Vaccination was transferred to the Corporation as a public health function on 1st April, 1930.

The Public Vaccinators for Salford and their districts are as follows :—

Description.	District.	Public Vaccinator.
Salford (No. 1) District.	Such part of the Township of Salford as is comprised within the following boundary, namely: Commencing at the former Township boundary between Pendleton and Salford at Broad Street; along Windsor and the Crescent to Oldfield Road; along Oldfield Road to Regent Road; along Regent Road to Regent Bridge; thence in a northerly and westerly direction along the River Irwell to the boundary between the former Townships of Salford and Pendleton near Peel Park; thence along the boundary between such former Townships to the point first named.	Dr. William Elwood, 227, Oldfield Road, Salford.

Description.	District.	Public Vaccinator.
Salford (No. 2)	Such part of the Township of Salford as is comprised within the following boundary, namely: Commencing at the boundary of the former Townships of Salford and Pendleton at New Windsor, Salford; along New Windsor and the Crescent to Oldfield Road; along Oldfield Road to Regent Road; along Regent Road to the River Irwell at Regent Bridge; thence in a southerly and westerly direction along the River Irwell and the Manchester Ship Canal to the boundary between the former Townships of Pendleton and Salford; thence along the boundary between such former Townships to the point first named.	Dr. S. J. Yeates, 1, Haworth Street, Cross Lane, Salford.
Pendleton District (Salford Township).	The whole of the former Township of Pendleton.	Dr. Herbert Yearnshaw, 305, Eccles New Road, Pendleton.
Broughton District (Salford Township).	The whole of the former Township of Broughton.	Dr. Thomas Waycott Chaff, "Limefield," 194, Broughton Lane, Broughton.

The Vaccination Officers are as follows:—

District.	Vaccination Officer.
North and South Salford Registration Sub-Districts.	Mr. A. Sharrocks, 1, Lord's Avenue, Weaste, Salford.
West Salford Registration Sub-District.	Mr. C. F. Settle, 9, Wentworth Avenue, Pendleton, Salford.

Particulars as to vaccinations and re-vaccinations carried out in Salford during the year 1930 are as follows:—

PARTICULARS AS TO VACCINATION DURING 1930.

District.	No. of cases in birth lists.	No. of certificates of vaccination received.	No. of certificates of postponement owing to			No. of statutory declarations under Section 1 of the Vaccination Act, 1907.	No. of certificates of insusceptibility or of having had smallpox.	No. of cases		No. of entries in list sent to public vaccinator.
			Health of child.	Condition of house.	Prevalence of infectious disease.			Parents removed out of district.	Otherwise not found.	
NORTH	993	977	85	—	—	214	6	26	23	356
SOUTH . . .	1,108	1,254	261	—	—	140	4	35	38	435
WEST	1,609	1,270	31	—	—	200	8	171	31	149
TOTAL	3,710	3,501	377	—	—	554	18	232	92	940

SECTION IIA.

Atmospheric Pollution.

During the past year observations have been continued with respect to :—

- (1) Comparison of efficiency of solid fuels when burned in the all-firebrick open domestic grate.
- (2) The measurement of atmospheric impurity at four different stations by means of the “deposit gauge.”
- (3) The measurement of the strength of sunlight at four different stations by means of the Potassium Iodide test.

1. Comparative Efficiency of Solid Fuels when burned in the All-Firebrick Open Grate.

For some half-dozen years, the efficiency of various solid fuels has been compared by burning in similar all-firebrick grates (Salford type) in similar rooms, the relative amounts of fuel used being regulated so as to produce approximately equal temperatures in both rooms. Details of the methods used in these experiments may be found in Section IIA of my Annual Report for 1925.

To summarise briefly the results obtained during the past six years, it may be said that, for general efficiency

and cheapness, vertical retort coke (unquenched) is easily first. So much is this the case that for a number of years this fuel (vertical gas coke) has been the only one in regular use in respect of the 60 odd open fires existing in the Health Department. It should be added, by the way, that all these 60 open fireplaces have been converted into the Salford type (all-firebrick and without bottom draught). It can therefore be said that, for many years now, the Salford Health Department with its various clinics, laboratories and offices, has been heated in great part by open coke fires and to a less extent by central heating (chiefly patients' waiting-rooms) with the following results:—

- (a) Abolition of atmospheric pollution.
- (b) A substantial reduction in the yearly fuel bill.

The staff like these open smokeless fires, and the conditions under which they work are undoubtedly better than in premises almost entirely warmed by central heating.

Recent Experiments.

Experiments carried out during the past winter, comparing the efficiency of vertical coke and best house coal, confirm results obtained in previous years and indicate that, weight for weight, vertical coke is markedly superior.

The fuels compared were sampled in the usual way for the purpose of analysis, and gave the following figures:—

VERTICAL RETORT COKE.

Contents.	Percentage.
Volatile Matter	1.54
Ash	11.03
Fixed Carbon	86.81
Hygroscopic moisture	0.62
	B.T.U.
Calorific Value (gross)	12,879
„ „ (net)	12,853

BEST HOUSE COAL.

Contents.	Percentage.
Volatile Matter	31.05
Ash	7.82
Fixed Carbon	58.12
Hygroscopic moisture	3.01
	B.T.U.
Calorific Value (gross)	13,487
„ „ (net)	13,036

In order to obtain a fair comparison, all experiments in which the respective mean room temperature showed a difference greater than 0.5 degrees Fahrenheit have been eliminated from the tabulation. There remained then 28 experiments in which the results are embodied in the following table:—

“ VERTICAL COKE ” *versus* “ BEST HOUSE COAL.”

Average of 28 observations carried out during the past winter.

VERTICAL COKE.		BEST HOUSE COAL.	
Average Temperature of Room (Fahrenheit).	Average daily weight of fuel consumed.	Average Temperature of Room (Fahrenheit).	Average daily weight of fuel consumed.
63.6 degrees.	14.2 lb.	63.7 degrees.	19.6 lb.

In other words the efficiency ratio is 1.35 in favour of the vertical coke.

2. The Measurement of Atmospheric Impurity at four different Stations has been continued during the past year.

The amount and character of pollution occurring at each of these stations is set forth in page 303 of this report (City Analyst's Section). A study of the figures yielded by the four gauges for a number of years is being made, and will be reported on at a later date.

3. The Measurement of the Strength of Sunlight* at four different Stations by means of the Potassium Iodide Test.

This work has been continued, and the results for the past year are set forth on page 299 of this report (City Analyst's Section).

In connection with this subject, two lines of enquiry suggested themselves to the writer.

(a) The correlation between week-end closure of factories and the amount of daylight.

(b) The relation of wind direction and amount of daylight in areas near the industrial fringe.

(a) Inasmuch as factory smoke has been held by some to be very largely responsible for the reduction of daylight in industrial areas, it was considered that if this were true, the average amount of daylight received at our

* The term "Sunlight" includes all the light received from the sky, even on a cloudy day, and should not be confused with "sunshine"—the direct rays of the sun.

observation stations might show some considerable increase on those days when factories were inactive, e.g., Saturdays and Sundays. It is somewhat unfortunate that *daily* records of sunlight received at the stations are only available for two years, namely 1926 and 1927. Since 1927 only weekly records have been kept, but it has been decided to continue henceforth recording *daily* observations.

In respect of the years 1926 and 1927 therefore, the average daylight figure for each of the seven days of the week has been got out in respect of three stations, namely Nab Top, Marple, Ladywell Sanatorium and Drinkwater Park. The year 1926, by the way, is the year of the great coal dispute, with a period of exceptionally clear skies.

In the accompanying tables the days of the week are placed in order of the average amount of daylight received, the actual figures being inserted at the same time.

SUNLIGHT FIGURES.

YEAR 1926.

Days of week arranged in order of amount of Sunlight received.

	1.	2.	3.	4.	5.	6.	7.
	Thur. 5.08	Mon. 4.92	Sun. 4.78	Fri. 4.76	Sat. 4.74	Tues. 4.73	Wed. 4.72
Nab Top							
	Sat. 4.78	Thur. 4.64	Mon. 4.55	Fri. 4.52	Wed. 4.46	Sun. 4.45	Tues. 4.34
Ladywell							
	Wed. 5.04	Sun. 5.02	Sat. 4.90	Thur. 4.82	Mon. 4.71	Tues. 4.70	Fri. 4.46
Drinkwater							

YEAR 1927.

Nab Top	Thur. 4.79	Tues. 4.75	Fri. 4.69	Wed. 4.53	Sun. 4.46	Mon. 4.37	Sat. 4.21
Ladywell	Thur. 5.12	Tues. Sun. } 5.04		Wed. 4.86	Fri. 4.80	Sat. 4.29	Mon. 4.14
Drinkwater	Thur. 5.19	Fri. 5.07	Tues. 5.04		Mon. Sun. } 4.87 Sat.		Wed. 4.16

TWO YEARS' AVERAGE.

	1.	2.	3.	4.	5.	6.	7.
Nab Top	Thur. 4.935	Tues. 4.74	Fri. 4.725	Mon. 4.645	Wed. 4.625	Sun. 4.62	Sat. 4.475
Ladywell	Thur. 4.88	Sun. 4.745	Tues. 4.69	Wed. Fri. } 4.66		Sat. 4.535	Mon. 4.345
Drinkwater	Thur. 5.005	Sun. 4.945	Sat. 4.885	Tues. 4.87	Mon. 4.79	Fri. 4.765	Wed. 4.60

Total for 2 years at all stations.	Thur. 29.64	Sun. 28.62	Tues. 28.60	Fri. 28.30	Sat. 27.79	Wed. 27.77	Mon. 27.56
Average	4.96	4.77	4.77	4.72	4.63	4.63	4.59

The results do not lend much support to the supposition of clearer week-end skies with a corresponding increase in week-end daylight. There is comparatively little difference in the average figure for the best day and the worst day; it is somewhat curious to find that Thursday give the highest average figure; Sundays stand high, but Saturdays appear low down in the list.

(b) RELATION OF WIND DIRECTION AND DAYLIGHT IN
AREAS NEAR THE INDUSTRIAL FRINGE.

Since atmospheric pollution is conveyed by winds to districts beyond the area in which it is produced, it was considered that, generally speaking, in areas just beyond the industrial fringe the average amount of daylight might be lessened when the wind came from the direction of the city, and vice versa.

As already indicated, daylight figures for each day of the years 1926 and 1927 were available in respect of 3 stations and, as wind direction for each day of these two years was also available, it was possible to correlate the two factors.

The correlation has, therefore, been carried out in respect of the two stations, Drinkwater Park Hospital, Prestwich (Salford City Smallpox Hospital), and Nab Top Sanatorium, Marple (Salford City Tuberculosis Sanatorium). Taking Manchester Town Hall as lying near the centre of the congested area of Manchester and Salford, Drinkwater Park is almost exactly $3\frac{1}{2}$ miles to the north west of Manchester Town Hall (actually 5 degrees north of north-west). Nab Top is almost exactly $8\frac{3}{4}$ miles to the south-east of Manchester Town Hall (actually 8 degrees east of south-east). Drinkwater Park and Nab Top are, therefore, on opposite sides of a great congested area, Nab Top being just $2\frac{1}{2}$ times as far from Manchester Town Hall as is Drinkwater Park.

Theoretically, from the point of atmospheric clearness, a wind direction from north to west should favour Drinkwater Park and prejudice Nab Top. Conversely, a wind direction from east to south should favour Nab Top and prejudice Drinkwater Park.

In the two years under consideration (1926 and 1927), it was found that the wind direction was somewhere between north and west on 208 days, and between east and south on 274 days. The total amount of free iodine liberated by daylight at the two stations under opposite wind conditions is set forth in the accompanying table, and the diagram shows graphically the position of the two stations relative to Manchester Town Hall.

RELATION OF WIND DIRECTION AND AMOUNT OF DAYLIGHT AT DRINKWATER PARK AND NAB TOP DURING THE YEARS 1926 AND 1927.

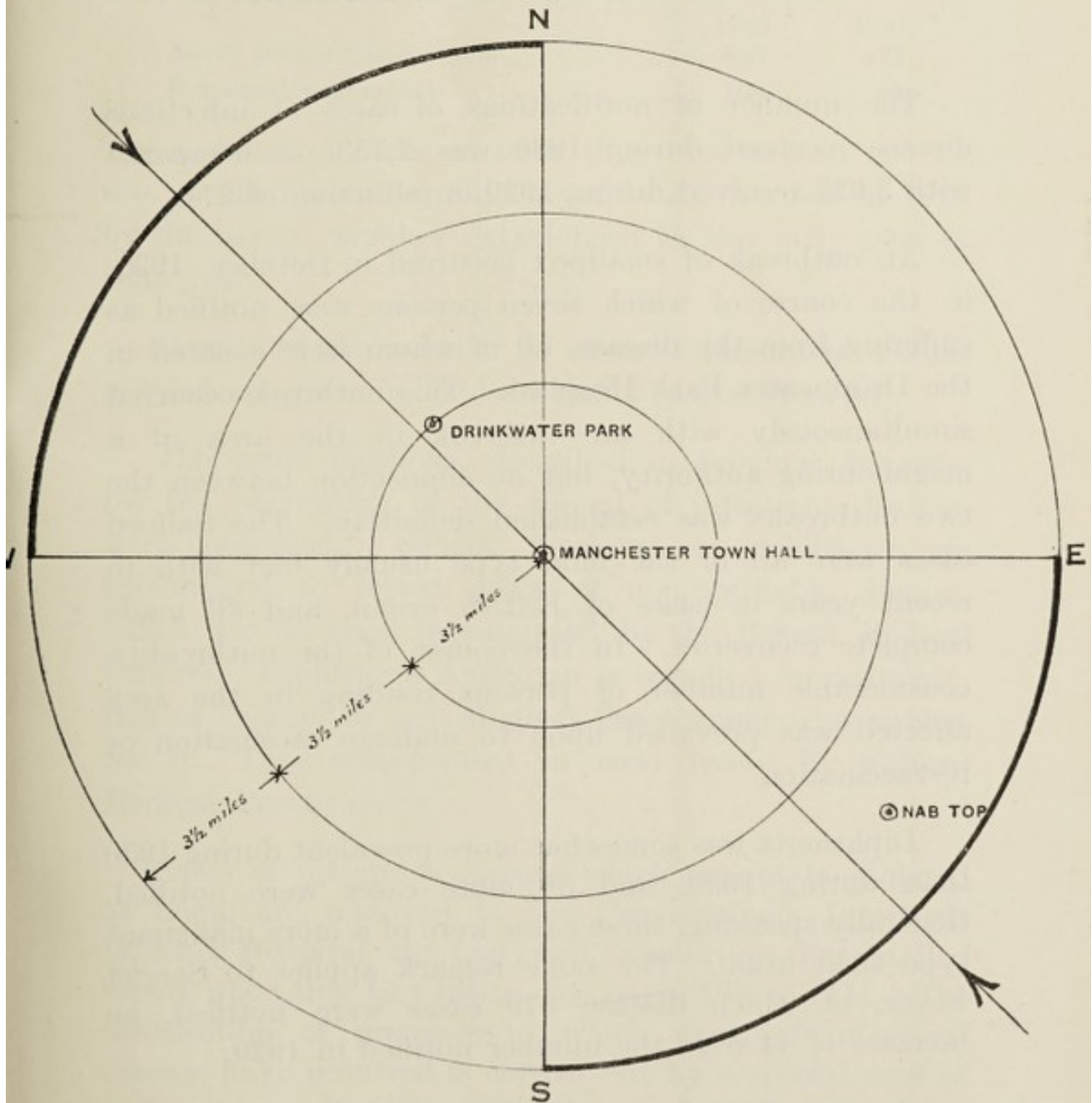
(The figures in the table indicate the actual amount of iodine liberated by daylight.)

Year.	Wind West to North.			Wind East to South.		
	No. of days.	Drink-water Park.	Nab Top.	No. of days.	Drink-water Park.	Nab. Top.
1926	111	598.8	516.8	136	574.4	650.8
1927	97	507.3	391.6	138	631.9	643.3
1926 and 1927 combined	208	1106.1	908.4	274	1206.3	1294.1

In this case the figures lend support to the theory. In both years 1926 and 1927, the daylight figure is higher at Drinkwater Park than at Nab Top, when the wind is blowing from the former across the combined cities of Manchester and Salford towards Nab Top, the advantage for the two years being 21 per cent in favour of Drinkwater Park. In both years the daylight figure is higher at Nab Top than Drinkwater Park, when the wind is blowing from Nab Top across Manchester and Salford towards Drinkwater Park, the advantage for the two years being 7 per cent in favour of Nab Top.

Relation of WIND DIRECTION and Amount of DAYLIGHT at Two Stations on Opposite Sides of MANCHESTER and SALFORD.

WHEN WIND IS NORTH TO WEST
(208 DAYS IN 1926 & 1927)
DAYLIGHT IS 21 % BETTER AT
DRINKWATER THAN NAB TOP.



WHEN WIND IS EAST TO SOUTH
(274 DAYS IN 1926 & 1927)
DAYLIGHT IS 7% BETTER AT
NAB TOP THAN DRINKWATER.

DRINKWATER PARK IS $3\frac{1}{2}$ MILES FROM M/c. TOWN HALL.
NAB TOP " $8\frac{1}{2}$ " "

SECTION III.

Infectious Diseases.

The number of notifications of cases of infectious disease received during 1930 was 2,753, as compared with 3,027 received during 1929, a reduction of 274.

An outbreak of smallpox occurred in October, 1930, in the course of which seven persons were notified as suffering from the disease, all of whom were isolated in the Drinkwater Park Hospital. This outbreak occurred simultaneously with an outbreak in the area of a neighbouring authority, but no connection between the two outbreaks was established definitely. The Salford cases were all of the mild type usually met with in recent years in cases of British origin, and all made complete recoveries. In the course of the outbreak a considerable number of persons residing in the area affected was prevailed upon to undergo vaccination or re-vaccination.

Diphtheria was somewhat more prevalent during 1930 than during 1929, and 58 more cases were notified. Generally speaking, these cases were of a more malignant type than usual. The same remark applies to Scarlet Fever, of which disease 679 cases were notified, an increase of 44 over the number notified in 1929.

An important feature of the experience of infectious diseases during the year was a reduction of 68 in the number of notifications of pulmonary tuberculosis, which fell to 454.

The reduction in the number of cases of pneumonia, both primary and influenzal, was very marked; these were as follows:—

	1929.	1930.
Acute primary pneumonia	658 ..	422
Influenzal pneumonia	168 ..	49

The number of cases of both these diseases, of course, was swollen considerably beyond the normal in 1929 by the severe weather experienced in the early part of that year.

Details of the number of cases of infectious disease notified are given in Tables 1 and 2 (pages 84 to 86).

The usual methods, described in previous Reports, for the prevention of the spread of infectious diseases were continued. School teachers, in addition, are encouraged to report cases of non-notifiable disease, which are at once investigated by the School Medical Officers. Diphtheria Antitoxin is supplied immediately, free of charge, to any Medical Practitioner who applies for it. This arrangement is used freely by Salford Medical Practitioners.

Cases of infectious disease which cannot be isolated at home are removed to the Corporation's Infectious Diseases Hospital, the Ladywell Sanatorium (for detailed report upon this Institution, see pages 107 to 141). The disinfection of premises in which cases of infectious disease have occurred is carried out by a special staff of disinfectors. Bedding and clothing which have been exposed to infection are disinfected at the Corporation's Disinfecting Station at Mode Wheel; details of the work carried out at this Station appear on page 43).

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1930.

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.	Claremont.	Crescent.	Docks.	Kersal.	Langworthy.	Mandley Park.	Ordall Park.	Regent.	St. Matthias.	St. Paul's.	St. Thomas.		Seedley.	Trinity.	Waste.	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.																		45 to 65.	65 and upwards.
Small pox	7	..	..	4	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	6	7
Diphtheria (including Membranous group)	736	15	205	415	60	41	..	46	27	11	102	33	48	31	41	66	58	42	78	36	18	49	50	719
Erysipelas	158	3	3	9	23	42	62	8	11	4	12	5	5	12	10	7	11	13	10	13	5	22	10	97
Scarlet fever	679	3	201	387	63	23	2	47	39	11	47	33	56	46	66	37	40	47	49	39	27	39	56	598
Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric fever	25	..	1	6	8	6	4	2	..	2	4	..	6	..	1	1	1	1	2	1	1	..	3	24
Continued fever	1	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Relapsing fever .....	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1	4	..	..	..	1	1	1	..	..
Puerperal fever	13	..	..	2	11	..	..	1	2	..	1	1	..	..	1	4	..	..	..	1	1	1	..	12
Puerperal Pyrexia ..	30	..	..	7	23	..	..	1	2	..	4	3	1	2	6	1	4	1	1	2	1	1	..	13
Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis ..	2	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..
Acute-Poliomyelitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anthrax .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glanders .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum	33	33	..	..	..	..	..	1	5	..	4	..	1	5	2	3	1	1	2	5	..	3	..	526
Pulmonary tuberculosis	454	3	7	31	126	168	111	23	21	16	38	31	15	34	23	41	40	32	30	34	19	43	14	..
Other forms of tuberculosis ..	130	10	16	48	26	21	9	7	13	5	18	3	4	2	6	7	10	14	8	8	4	16	5	43
Malaria .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Primary Pneumonia	422	..	..	..	..	..	..	14	26	4	55	17	9	33	27	18	34	27	49	61	9	26	13	2
Influenzal Pneumonia	49	..	..	..	..	..	..	5	2	..	3	10	1	5	3	..	2	6	6	3	..	..	3	..
Encephalitis Leth. ..	8	..	2	..	3	1	2	1	1	..	..	..	..	..	..	1	..	..	3	..	1	1	..	2
Acute Polio Encephalitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pemphigus Neonatorum	6	6	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	1	..	1	..	..	..
Total	2753	73	437	896	323	338	191	24	156	53	289	136	147	170	187	186	203	184	240	203	87	201	161	2044

Excluding Pneumonia

INFECTIOUS DISEASES.

Year.	†Chicken-pox.	Smallpox.	Scarlet Fever.	Diphtheria.	Fever.				Puerperal Pyrexia.	Pemphigus Neonatorum.	Erysipelas.	Anthrax.	Cerebro-Spinal Meningitis.	Acute Poliomyelitis.	Ophthalmia Neonatorum.	* Measles.	Tuber- culosis.		Typhoid Fever.	Malaria.	Acute Polio- encephalitis.	Dysentery.	Acute Primary Pneumonia.	Influenza- Pneumonia.	Encephalitis Lethargica.	Total.
					Enteric.	Typhus.	Con- tinued.	Puerperal.									Pul- monary.	Non-Pul- monary.								
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	933	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	..	..	..	..	..	..	..	..	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
1922.....	1275	359	37	..	..	25	..	..	141	..	4	..	72	..	510	101	..	6	..	..	..	426	1	2957
Average 5 years	..	1	1019	273	37	..	1	26	..	..	129	..	6	1	81	1727	555	115	1	35	..	13	..	283	4	3272
1923.....	868	304	27	..	..	22	..	..	98	1	5	1	57	..	547	125	..	4	..	1	114	86	8	2268
1924.....	403	286	26	..	..	18	..	..	89	..	4	1	56	..	557	87	..	1	2	1	461	138	59	2189
1925.....	1145	..	510	376	30	..	..	17	..	..	131	..	2	1	60	..	507	132	..	1	1	..	409	132	27	3484
1926.....	720	533	10	..	..	20	12	24	140	..	3	4	50	..	532	123	..	1	4	..	363	99	13	2651
1927.....	..	1	631	507	9	..	..	7	27	16	120	..	5	4	48	..	573	148	..	2	..	2	465	158	17	2740
Average 5 years (excluding Chicken pox).
1928.....	..	1	626	401	20	..	..	17	20	20	116	1	4	2	54	..	543	123	..	2	1	1	362	123	25	2437
1929.....	..	5	822	425	20	..	1	19	28	11	139	..	13	..	55	..	454	166	..	1	..	..	458	80	12	2709
1930.....	635	678	9	..	..	16	18	10	150	..	5	2	35	..	522	112	..	..	..	..	658	168	9	3027
1930.....	..	7	679	736	25	..	1	13	30	6	158	..	2	..	33	..	454	130	..	..	..	..	422	49	8	2753

TUBERCULOSIS.

Dispensary.

The Tuberculosis Dispensary is situate at Nos. 145 and 147, Regent Road, Salford. There are no branch dispensaries or visiting stations. The staff consists of two Medical Officers, four Health Visitors and three Clerks.

(a) Patients referred for Examination.

One thousand and forty-three patients (including non-pulmonary cases) were referred to the Tuberculosis Officers for examination by general practitioners during 1930. It is to be regretted that, in many cases, primary notifications of tuberculosis are received when the disease is in such an advanced state that no treatment can be of lasting value, but during 1930 a noticeable improvement has taken place in this connection and more early and suspected cases have been sent in by the General Practitioners than in previous years. It is only by the co-operation of the general practitioners that your Tuberculosis Officers can deal with cases in their earliest and, therefore, most curable stages. All sputum examinations desired by Medical Practitioners are made at the Municipal Bacteriological Laboratory. Six hundred and seventeen specimens were examined last year for general practitioners.

(b) Routine Procedure.

When a patient is notified to this Department by a general practitioner as suffering from tuberculosis in any form whatever, the home of such patient is immediately visited by one of the Health Visitors. Precautions as to

the likelihood of the spread of infection, the advisability of separate sleeping accommodation, etc., are advised, and efforts are made to secure the attendance at the dispensary of all contacts residing in the same house. Four hundred and sixty-four contacts were examined last year.

It happens not infrequently that a diagnosis cannot be made on first examination of a patient at the dispensary, and in all such cases the patients are re-invited to attend the dispensary periodically until a definite diagnosis is made, when they are either placed under treatment or observation or discharged.

In some cases of advanced disease where removal to an Institution for treatment is impracticable, and adequate nursing is impossible under the patient's home conditions, arrangements are made with the District Nursing Association, and the patients are visited daily (in some cases twice daily) in their homes by a trained nurse. In the case of patients in extreme poverty and recommended by the Tuberculosis Officers as being suitable for the granting of extra nourishments, arrangements are made with milk dealers in the City for milk and eggs to be supplied each day.

The usual types of cases receiving these nourishments are (*a*) patients who have received an adequate course of sanatorium treatment and whose medical condition is such that, with the grant of extra nourishment, they may be expected to maintain or recover full working capacity; and (*b*) patients in whose cases ultimate

arrest of the disease may reasonably be anticipated, and who are waiting for admission to a sanatorium.

(c) X-ray Examinations.

X-ray examinations are now made at the dispensary in large numbers, and this method of examination is found to be an invaluable aid, not only for purposes of diagnosis but in obtaining information as to the real extent of the disease in the lungs of the patient. It is also of great value in determining the results of treatment. One thousand four hundred and one cases were examined by X-rays last year. These examinations have been found of great value to General Practitioners in the differentiation of other chronic diseases of the lung simulating tuberculosis, many of which in the past have been diagnosed as cases of pulmonary tuberculosis. It should also be noted that considerable time is now saved in making a definite diagnosis of chest diseases, and patients are not required to be kept under observation for periods of longer than one or two months before a final decision is made.

In the X-ray department has been installed a reducing camera, and when a radiogram showing tuberculous disease is taken, a reduced sized photographic copy is sent to the General Practitioner. In order that he may have an accurate knowledge of the condition and extent of the disease careful notes describing the condition are filled in on the back of the photograph.

Many letters of appreciation have been received from General Practitioners regarding this new develop-

ment which is undoubtedly of great assistance to the doctor attending the patient.

It has been felt for some time that an X-ray equipment was required at the Nab Top Sanatorium, Marple, and it was decided to transfer the apparatus from Regent Road to the Sanatorium in October last.

The opportunity was then taken to have a more powerful outfit of the very latest design installed at the Dispensary.

In October, a 100 M.A. set was therefore installed with a more powerful X-ray tube, and this is doing most excellent work.

(d) Treatment by Artificial Pneumothorax.

Treatment of pulmonary tuberculosis by this method is now being used on a larger scale. Primary inductions are generally effected at the Ladywell Sanatorium, and after the lung is collapsed, the patients are mostly transferred to Nab Top Sanatorium, for continuance of the refills. Those (few in number) who refuse further Sanatorium treatment have had their refills continued at the Dispensary.

It is a revelation to see the rapid improvement caused in these patients after the lung is collapsed, and there is no doubt that a large number of otherwise hopeless cases, if not completely cured, have useful lives prolonged for a considerable number of years.

The ideal case for this treatment is one in which the disease is entirely one-sided, but a few patients

with a slight amount of disease in the contra-lateral lung are also receiving this treatment with great benefit.

A commencement has been made with a few cases of treatment by Sanocrysin (Thiosulphate of Gold). The results are certainly encouraging and the treatment is being continued.

(e) Insured Persons.

Insured patients not in need of Institutional treatment are usually placed on domiciliary treatment, that is to say, they are treated by their own doctors whilst residing at home, and records of progress should be furnished every three months by the attending Medical Practitioners on Form G.P.36. These patients are examined from time to time by one of the Tuberculosis Officers.

(f) Effects of Dispensary Treatment.

The effects of dispensary treatment depend 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 of chronic disease, whose condition appears to keep stationary for long periods.

INSTITUTIONAL TREATMENT.

(a) Nab Top and Ladywell Sanatoria.

The residential institutions in connection with the Tuberculosis scheme are :—

(a) Nab Top Sanatorium, Marple.

(b) Ladywell Sanatorium, Salford.

There are 120 beds available at the Nab Top Sanatorium, Marple, for the treatment of Salford patients. These beds are occupied principally by observation, early, and intermediate cases of pulmonary tuberculosis. Occasionally, however, cases of surgical tuberculosis are admitted for treatment. Twelve of the beds which are in rather exposed shelters are not used during the six winter months.

At the Ladywell Sanatorium there are 66 beds set apart for the treatment of tuberculosis. Many cases are being admitted to the Ladywell Sanatorium for purposes of observation as to temperature; subsequently, on becoming afebrile, they are transferred to the Nab Top Sanatorium, Marple, for open-air sanatorium treatment. It has been found that many cases of quite moderate severity do badly at an open-air sanatorium such as Nab Top, where they are completely in the open air, but when admitted to the Ladywell Sanatorium, in which, while there is an abundance of fresh air, the patient is not actually living and sleeping in the open air, excellent progress is made, and the patient's temperature rapidly falls. Numbers of these patients have been transferred from the Nab Top Sanatorium, where they had been in bed continually for several months with no apparent improvement, and on transfer to the Ladywell Sanatorium immediate improvement with a fall of temperature has been noticed. It is, consequently, of great value to have two Institutions of different type for the treatment of pulmonary tuberculosis.

The Ladywell Sanatorium is also largely used for the isolation of advanced cases; such isolation is undoubtedly

of great value in lessening the danger of massive infection in the homes, but is detracted from, by the difficulty of keeping the patients in hospital indefinitely.

(b) Treatment of School Children.

Cases of definite, or suspected, pulmonary or other forms of tuberculosis in children are always referred by the School Medical Officers to the Tuberculosis Officers for examination. Many of these cases are sent to Nab Top Sanatorium for treatment or observation. An open-air school under the control of an efficient teacher has been established at the Nab Top Sanatorium in order that the child patients may not suffer educationally during their period of treatment.

Delicate or pre-tubercular children definitely without signs of lung disease are referred to the School Medical Department for admission to open air schools within the City.

(c) Treatment of Tuberculous Skin Diseases.

Special arrangements have been made with the Manchester and Salford Hospital for Skin Diseases for the treatment of lupus and other tuberculous skin diseases, and a large number of cases were approved for artificial sunlight treatment. There is no doubt that this form of treatment has very considerable beneficial effect in the treatment of tuberculous skin disease, recovery being much more rapid than in cases treated by local applications only. The number of visits paid by patients for artificial sunlight treatment during the year was one thousand one hundred and twenty-eight. The total

number of tuberculous skin cases treated was sixty-four, and the total number of attendances at the Skin Hospital, one thousand six hundred and eighty-three.

(d) Treatment of Surgical Tuberculosis.

Cases of surgical tuberculosis, after approval by the Tuberculosis Officer, are treated when necessary at the Salford Royal Hospital. At the request of the Surgeons at the Salford Royal Hospital a number of cases of surgical tuberculosis have been sent to the Open-Air Sanatorium at Marple for varying periods after immobilisation, where necessary, of the affected part. These cases have derived very considerable benefit from their stay at the Sanatorium.

GENERAL REMARKS.

The powers contained in the Salford Corporation Act, 1920, and the Public Health Act, 1925, for the compulsory removal to hospital of persons suffering from pulmonary tuberculosis, have not been utilised up to the present time.

It has been found that in obstinate cases of advanced disease, it is sufficient to warn the patient that compulsory powers can be put in force on application to a magistrate.

No action has been taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, in connection with tuberculous employees in the milk trade.

Three sessions per week have been allotted to the Tuberculosis Department for the treatment of cases

of surgical tuberculosis in the Artificial Sunlight Clinic. Great improvement has been noted in cases of tubercular gland disease in which open sinuses have been present. These have derived very great benefit, and the sinuses, which in some cases had been discharging continuously for six months to two years, have definitely closed, and the patient's general health has been very greatly improved. Several cases of tuberculous joint disease have also been submitted to this treatment, but so far do not show any marked signs of improvement. No cases of pulmonary tuberculosis have as yet been given treatment by ultra violet rays.

I regret to state that, in spite of the general practitioners in the City being circularized from time to time with reference to the notification of tuberculosis, the percentage of cases of pulmonary tuberculosis not notified before death has increased from 12.32 per cent in 1929 to 16.73 per cent in 1930.

The percentage of fatal cases notified within three months of death shows a definite decrease on the previous year's figures. (See Table II.)

It is a matter for regret that, although there is some improvement, cases were not seen earlier so that some beneficial treatment could be instituted.

SUMMARY OF WORK DONE AT THE TUBERCULOSIS DISPENSARY IN 1930.

Diagnosis.	Pulmonary.				Non-Pulmonary.				Total.			
	Adults. M. | F.		Children M. | F.		Adults. M. | F.		Children M. | F.		Adults. M. | F.		Children M. | F.	
A. New cases examined during the year—												
(a) Definitely tuberculous	176	122	4	11	9	15	26	18	185	137	30	29
(b) Doubtfully tuberculous	—	—	—	—	—	—	—	—	27	50	10	3
(c) Non-tuberculous..	—	—	—	—	—	—	—	—	178	163	69	44
B. Contacts examined during the year—												
(a) Definitely tuberculous	1	—	1	—	—	—	1	1	1	—	2	1
(b) Doubtfully tuberculous	—	—	—	—	—	—	—	—	1	—	5	3
(c) Non-tuberculous..	—	—	—	—	—	—	—	—	76	149	101	125
C. Cases written off Dispensary Register as—												
(a) Cured	8	15	—	1	1	3	—	3	9	18	—	4
(b) Diagnosis not confirmed or non-tuberculous	—	—	—	—	—	—	—	—	287	343	188	186
D. Number of persons on Dispensary Register on December 31st—												
(a) Diagnosis completed	629	443	44	46	55	59	69	58	684	502	113	104
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	14	22	12	3
1. No. of persons on Dispensary Register on January 1st....	1437				4. Died during the year (Dispensary cases)				199			
2. No. of patients transferred from other areas and "lost sight of" cases returned ..	16				5. No. of observation cases under A (b) and B (b) in which period of observation exceeded 2 months				64			
3. No. of patients transferred to other areas and cases "lost sight of"	154											

TABLE 1—Continued.

6. No. of attendances at Dispensary (including contacts)	5105	11. No. of other visits by Tuberculosis Officers to homes ...	11
7. No. of attendances of non-pulmonary cases at Orthopædic Out-Stations for treatment or supervision ...	Nil.	12. No. of visits by Nurses or Health Visitors to homes for Dispensary purposes....	6035
8. No. of attendances at General Hospitals, or other Institutions approved for the purpose, of patients for—		13. No. of—	
(a) "Light" treatment	1128	(a) Specimens of sputum, &c., examined	740
(b) Other special forms of treatment	555	(b) X-ray examinations made in connection with Dispensary work.....	1401
9. No. of patients to whom Dental Treatment was given at or in connection with the Dispensary	Nil.	14. No. of insured persons on Dispensary Register on December 31st	930
10. No. of consultations with medical practitioners—		15. No. of insured persons under Domiciliary treatment on December 31st	518
(a) At homes of applicants ...	111	16. No. of reports received during the year in respect of insured persons—	
(b) Otherwise	932	(a) Form G.P. 17	32
		(b) Form G.P. 36	71

TABLE 2.

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

	Number.	Per-centage
Not notified before death	47	16.73
Notified within three months of death	58	20.64
„ from three months to one year before death..	81	28.82
„ from one year to two years before death....	31	11.03
Over two years	64	22.78

Total number of deaths, 281.

Ratio of non-notified cases to total fatal cases, 47—281.

TABLE 3.

NEW CASES AND MORTALITY DURING 1930.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0	2	1	8	2	1	..	7	1
1	4	3	9	7	1	2	4	6
5	8	3	17	10	1	1	3	1
10	8	12	12	9	3	2	..	1
15	26	33	6	11	13	20	2	6
20	23	44	3	6	18	20	2	3
25	53	48	3	10	23	23	2	4
35	45	22	3	5	32	23	1	1
45	57	17	4	1	43	17	3	1
55	29	8	1	3	28	4	1	1
65 and upwards.....	6	2	..	..	4	2	..	..
Totals	261	193	66	64	167	114	25	25

TABLE 4.

OCCUPATIONS OF THE 454 CASES OF PULMONARY
TUBERCULOSIS NOTIFIED.

MALES.

1. Joiners, House Decorators and Building Trades ..	8	18. Porters	3
2. Carters and Hawkers ..	8	19. War Pensioners.....	2
3. Labourers and Navvies	57	20. Employees in Milk Trade	2
4. Railway Workers	4	21. Warehousemen.....	7
5. Clerks and Typists	13	22. Boxmakers	1
6. Makers of Wearing Apparel	8	23. Packers	2
7. Colliers	6	24. Waiters	2
8. Mechanics and Engineer- ing Workers	29	25. Scholars.....	13
9. Commercial Travellers .	3	26. Tramway Workers	3
10. Seamen	3	27. Publicans	1
11. Printers and Bookbind- ing Trades	7	28. Butchers	3
12. Shop Assistants	3	29. Salesmen.....	3
13. Cotton Workers.....	2	30. Policemen	2
14. Electricians.....	7	31. Miscellaneous Occupa- tions.....	34
15. Plumbers.....	3	32. No Occupation	13
16. Dyers and Bleachers ...	4		
17. Employees in Motor Trades	5		
		Total	261

FEMALES.

1. Clerks and Typists	5	11. Domestic Servants	12
2. Makers of Wearing Apparel	28	12. Packers	6
3. Printing and Bookbind- ing Trades	1	13. Toffee Workers	2
4. Shop Assistants	4	14. Waitresses.....	2
5. Cotton Workers.....	15	15. Scholars.....	14
6. Dyers and Bleachers ...	1	16. Miscellaneous Occupa- tions.....	23
7. Housewives.....	57	17. No Occupations.....	8
8. Charwomen and Laun- dresses	8		
9. Confectioners	2		
10. Boxmakers	5	Total	193

The School Medical Officers notified 6 new cases of non-pulmonary tuberculosis on Form "B."

During the year 1930, 130 new notifications of non-pulmonary tuberculosis have been received.

The new cases of non-pulmonary tuberculosis notified are classified in the following table:—

	Glands.	Bones.	Abdo- men.	Skin.	Men- inges.	Other forms.	Totals.
Under 10 years ...	18	9	7	2	14	4	54
10 to 20 years	18	6	5	1	6	1	37
20 „ 30 „	4	2	4	2	1	3	16
30 „ 40 „	2	2	..	2	..	5	11
Over 40 „	1	4	3	2	..	2	12
Totals	43	23	19	9	21	15	130

Nab Top Sanatorium—Annual Report.

RESIDENT STAFF.—Medical Superintendent, Matron, Home Sister, two Ward Sisters, eleven Nurses, Cook, Laundress, seventeen Maids and Lodge Porter.

NON-RESIDENT STAFF. — Engineer, Porter, two Gardeners and Labourer.

ACCOMMODATION.—There is accommodation for 120 patients (62 adult males, 42 adult females, 8 male children, and 8 female children).

TYPE OF CASE TREATED.—The Sanatorium is used for the treatment of early and intermediate cases of Phthisis.

A few advanced cases who show good resistance to the disease are also treated. A number of "observation" cases are admitted.

LINES OF TREATMENT.—The treatment adopted is chiefly Hygienic—open air, rest and graduated exercise.

On admission, patients, after a period of rest in bed, are put on walking exercise, the distance being gradually increased. Afterwards this is supplemented by light ward work. Those who show a satisfactory resistance are then placed on graduated work, beginning with light gardening work and rising to heavier work such as grass cutting and lawn rolling, wheelbarrow work

and digging. Walking exercise is taken round two fields, the circumference of that reserved for women being one-quarter mile, and that for men one-third of a mile. The Hygienic treatment is supplemented, when necessary by drug treatment and by artificial pneumothorax treatment which is supervised by means of a modern and up-to-date X-ray apparatus recently installed.

FARM.—A poultry farm maintained on the premises supplies many of the eggs required for consumption. Most of the vegetables used in this Institution are also grown in the grounds of the Sanatorium.

RECREATION.—The dining hall is set apart for the use of patients every Saturday evening after supper, where whist and other card games are indulged in. A wireless set is in daily use, each bed being provided with a pair of ear phones. There is also a loud speaker in the dining hall. Concerts are arranged about once a month from October to April, given by outside talent, and on many occasions during the winter plays have been staged.

There is also a large bowling green and clock golf green for the men, and a bowling and croquet green for the women.

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

EDUCATION.—The Resident Medical Officer at frequent intervals delivers lectures to the patients on such subjects

as "Pulmonary Tuberculosis," "Rules of Health" and "The Care of the Mouth and Teeth." It is hoped that on leaving, patients may carry out the instructions given in these lectures and thus minimise the spread of infection in their own homes.

An open-air school, under the guidance of a competent teacher, has been established for patients under 16 years of age. This has been a boon to those children whose state of health has not permitted them to attend the ordinary school at home. No child is allowed to attend school unless certified physically fit by the Medical Superintendent.

Appended is a table showing the number of admissions, etc., and the number of patient days during the year 1930.

TABLE A—(Nab Top Sanatorium.)

SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER OF "PATIENT-DAYS"
DURING THE YEAR 1930.

	Total Adults.		Children under 15.			Totals.		
	Males.	Females	Males.	Females	Both.	Males.	Females	Both.
Number of Patients admitted prior to 1930 who remained in Sanatorium for some part of 1930	33	31	6	5	11	39	36	75
Number of "Patient-days" in 1930 for patients admitted prior to 1930 who remained in Sanatorium for some part of 1930 ..	2890	3253	430	1131	1561	3320	4384	7704
Total admissions 1930 ..	154	90	24	23	47	178	113	291
Total discharges and deaths 1930	144	100	24	17	41	168	117	285
Number of "Patient-days" for persons admitted during 1930 ..	15934	9308	2580	2345	4925	18514	11653	30167
Total number of "Patient-days" for 1930	18824	12561	3010	3476	6486	21834	16037	37871
Average number of Patients in Sanatorium each day during 1930 ..	52	34	8	10	18	60	44	104

NOTE.—The term "Patient-days" represents the product of the number of patients and the number of days spent by those patients in the Sanatorium.

TABLE B.—PATIENTS DISCHARGED FROM NAB TOP SANATORIUM DURING 1930.

Condition at Time of Discharge.	Duration of Residential Treatment in Institution.											
	Under 3 Months.			3 to 6 Months.			6 to 12 Months.			Over 12 Months.		
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.
Pulmonary Tuberculosis.....												
Quiescent	2	5	..	10	10	10	5	8	4	..	..	1
Improved	38	11	2	23	18	..	8	12	1	2	..	..
No Material Improvement	30	15	1	11	5	..	4	7	..	2	1	..
Died .....	..	..	..	..	..	..	..	..	..	..	..	..
Totals	70	31	3	44	33	10	17	27	5	4	1	1
Non-Pulmonary Tuberculosis.												
Quiescent	1	..	..	..	..	..	..	..	2	..	..	1
Improved	1	1	4	2	..	2	..	..	..	..	..	..
No Material Improvement	3	2	..	..	..	1	..	..	1	..	..	..
Died .....	..	..	..	..	..	..	..	..	..	..	..	..
Totals	5	3	4	2	..	3	..	..	3	..	..	1
Observation for Purposes of Diagnosis												
Tuberculous	Under 1 week.			1—2 weeks.			2—4 weeks.			Over 4 weeks.		
Non-Tuberculous .....	..	..	..	..	..	..	..	..	2	3	..	..
Doubtful .....	..	..	..	..	..	1	..	..	..	1	6	2

LADYWELL SANATORIUM.

TABLE SHOWING THE NUMBER OF ADMISSIONS, ETC., AND THE NUMBER
OF "PATIENT-DAYS" FOR 1930.

TUBERCULOSIS CASES.

	Males.	Females.	Totals.
Total Number of Admissions during 1930.....	160	127	287
Number of Persons Admitted prior to 1930 who remained in Hospital for some part of 1930	36	26	62
Total Number of Discharges and Deaths during 1930	163	126	289
Patients in Hospital on the 31st December, 1930.....	33	27	60
Number of "Patient-days" for Persons Admitted during 1930...	10308	7431	17739
Number of "Patient-days" (in 1930) for Persons Admitted prior to 1930 who remained in Hospital for some part of 1930.....	2318	1832	4150
Total Number of "Patient-days" for 1930	12626	9263	21889
Average Number of Patients in Hospital each day during 1930...	34.59	25.38	59.97

Ladywell Sanatorium.

REPORT FOR THE YEAR 1930.

At the beginning of the year there were 261 cases remaining in hospital; these, with the 2,228 admitted during the year, make a total of 2,489 cases under treatment. Of this total, 2,092 were discharged, 131 died and 266 were in hospital at the end of the year. The number of cases treated, viz., 2,489, compares with 2,358 in 1929 and 1,987, the average of the cases treated for the five years ended December 31st, 1929.

The cases treated were as follows:—

Scarlet Fever	778
Mixed Infections	76
Measles	28
Enteric Fever.....	19
Diphtheria.....	833
Erysipelas	106
Puerperal Fever.....	32
Tuberculosis	349
Other Diseases	268
	2489

The number of cases from Out-Districts was 408, as compared with 423 in 1929.

The daily average number of patients in 1930 was 253·2; the highest number being 304 on April 1st, and the lowest 230 on June 1st; 2,228 patients were admitted during the year, as compared with 2,130 in 1929, and with 1,785, the average for the five years ended December 31st, 1929. The following summary shows the diagnosis of the cases before admission and after observation in hospital:—

	Diagnosis before Admission.		Diagnosis after Observation.	
Scarlet Fever	785	..	703	
Diphtheria.....	907	..	753	
Enteric Fever.....	30	..	19	
Measles	8	..	26	
Erysipelas	109	..	96	
Puerperal Fever.....	31	..	30	
Encephalitis Lethargica.	—	..	1	} Other Diseases.
Chicken Pox	3	..	5	
Other Diseases.....	51	..	239	
Mixed Infections	17	..	69	
Tuberculosis	287	..	287	
	<hr/> 2228		<hr/> 2228	

Details of the alterations in diagnosis will be found in table 5, page 141. A tabulation of the cases classified as “other diseases” will be found on page 135.

MIXED DISEASES.—Fifty-eight of the patients discharged were found to be suffering from two distinct diseases, as follows :—

Scarlet Fever and Chicken Pox	5
Scarlet Fever and Diphtheria	20
Scarlet Fever and Measles	4
Scarlet Fever, Scald and Measles	1
Scarlet Fever, Diphtheria and Measles	1
Scarlet Fever and Psoriasis	1
Scarlet Fever and Blepharitis	1
Scarlet Fever and Impetigo	1
Scarlet Fever and Diph. carrier	1
Scarlet Fever and Parapsoriasis	1
Scarlet Fever and Erysipelas	1
Diphtheria and Whooping Cough	2
Diphtheria and Broncho-pneumonia	1
Diphtheria and Measles	5
Diphtheria and Chicken Pox	2
Diphtheria (bacter.) and Vincent's Angina.....	1
Diphtheria, Furunculosis and Conjunctivitis.....	1
Diphtheria and Psoriasis	1
Diphtheria and Scabies	1
Tonsillitis and Bronchitis	1
Tonsillitis and Anæmia	1
Tonsillitis and bact. Diphtheria	3
Measles and Nephritis	1
Measles and T.B. ankle	1

DEATHS FROM MIXED INFECTIONS.—In this group the concurrent affections directly or partially caused a fatal termination in four cases, as follows :—

Diphtheria and Measles	2
Post-diphtheritic paralysis and Empyema	1
Erysipelas and Rheumatoid Arthritis	1
	—
	4
	—

The average stay in hospital for all mixed diseases cases discharged well in 1930 was 47·07 days, and for those that died 6·25 days.

CROSS INFECTION.—The above cases of Mixed Infection, and cases admitted under a wrong diagnosis in which the actual diseases could only be ascertained after a time, gave rise to secondary infections in the wards. Every effort was made to prevent cross infection by careful examination of new patients before admission to the wards, and by employing the usual methods of Dick and Schick tests and immunization of susceptibles. In spite of these precautions, it has always, and more especially when the wards are full, been difficult to prevent the spread of any infection in the wards in this hospital, owing to the fact that much too great a proportion of the beds are in large wards and that the isolation accommodation is in proportion quite inadequate. In large wards, in contrast to small wards, the chance of another infection being brought in by new admissions is greatly increased, and a larger number of patients is exposed to the infection once it appears there. To increase the isolation accommodation the addition of 20 cubicles to the isolation block has been recommended.

The number of patients discharged in 1930 who contracted another infection was as follows:—

Sent in as:—

Scarlet Fever and developed	Chicken Pox	13
„ „ „ „	Nasal Diphtheria	5
„ „ „ „	Measles	6
„ „ „ „	Erysipelas	2
„ „ „ „	Measles, Chicken Pox and Nasal Diphtheria	1
Diphtheria and developed	Chicken Pox	5
„ „ „	Whooping Cough	1
„ „ „	Measles	14
„ „ „	Scarlet Fever	3
„ „ „	Measles and Chicken Pox	1
„ „ „	Rubella	1
Mixed Infection	„ Chicken Pox	1
„ „ „	Diphtheria	1
Rubella	„ Measles	1
Measles	„ Nasal Diphtheria	2
Tonsillitis	„ Chicken Pox	1
„ „ „	Scarlet Fever	1
		—
		59
		—

The average stay in hospital for the 59 cross-infected cases discharged well in 1930 was 78·3 days, and for the one fatal case 64 days. The particulars were as follows:

A female, aet. 3 yrs., a mongol mental defective, had a relapse, septic scarlet fever, on forty-ninth day of disease, then developed erysipelas and died.

DEATHS.—131 cases had a fatal termination, as follows :—

Scarlet Fever	2	0·28 %
Diphtheria	27	3·81 %
Erysipelas	5	
Enteric Fever	2	
Puerperal Fever	2	
Advanced Tuberculosis	74	
Influenzal Broncho-Pneumonia.	1	
Suppurative Arthritis	1	
Septic Miscarriage	1	
Lobar Pneumonia	1	
T.B. Meningitis	2	
Broncho-Pneumonia	1	
Infective Endocarditis	1	
Carbuncle (face)	1	
Meningitis	1	
Measles	4	
Cross Infection (Scarlet Fever, Relapse and Erysipelas	1	
Mixed Infections	4	
	<hr/> 131 <hr/>	

The fatality rates are worked out on the number of patients discharged. The average stay in hospital for all fatal cases, excepting advanced tuberculosis, was 9·12 days.

The number of cases discharged in 1930 was as follows :—

Disease.	Number.
Scarlet Fever	709
Diphtheria.....	702
Measles	24
Enteric Fever.....	17
Erysipelas	96
Puerperal Fever.....	25
Advanced Tuberculosis	213
Other Diseases	248
Mixed Infections	58
	<hr/> 2092 <hr/>

The average stay in hospital for all cases discharged during 1930 was : for Scarlet Fever 37·21 days ; for diphtheria 48·1 days ; for mixed infections 47·07 days ; for measles 39·38 days ; for enteric fever 58 days ; for erysipelas 25·44 days ; for puerperal fever 40·65 days ; for tuberculosis 81·90 days ; for other diseases 21·04 days.

The daily average number of patients in hospital in 1930 was 253·2, as compared with 249·1 in 1929, and with 214·3 the daily average of numbers in the five years ended December 31st, 1929.

There were remaining in hospital on December 31st, 1930, 266 cases, as compared with 261 last year. The cases remaining were Scarlet Fever 66, mixed infections 14, diphtheria 104, erysipelas 5, puerperal fever 5, tuberculosis 62, and other diseases 10.

73 of the cases remaining were from out-districts, as compared with 47 last year.

DETAILED INFORMATION ABOUT SOME DISEASES.

Scarlet Fever.

The number of cases of this disease admitted in 1930 was 703, as against 707 in 1929. 785 cases were certified as having scarlet fever, but in 111 cases the diagnosis had to be revised; in addition, 23 cases certified as diphtheria and six cases of mixed infection proved to be scarlet fever. 709 cases were discharged well during the year, as against 735 last year. There were two deaths from this disease, giving a 0.28 % fatality rate. The details of the two fatal cases were as follows:—

A male, aet. 4 yrs., died from Streptococcal Meningitis after suppurative otitis media. There were no mastoid signs.

A female, aet. 2 yrs., died from meningitis after suppurative otitis media and acute mastoiditis. This case of septic scarlet fever was admitted to hospital after three weeks' treatment at home.

The type of the disease was mild. Scarlatinal anti-toxin was given intramuscularly in 5—10 c.c. doses to all but the very mild cases. The more important complications were as follows:—

	Number.	Percentage of Discharged Cases.
Adenitis and Abscess (15)	208 ..	29.33
Otitis Media	49 ..	6.91
Acute Mastoiditis.....	6 ..	0.85
Rhinitis and Rhinorrhoea (51)	214 ..	30.18
Relapse	11 ..	1.55

Other complications were as follows : Albuminuria 7 ; arthritis 1 ; bronchitis 5 ; broncho-pneumonia 1 ; blepharitis 4 ; cellulitis 1 ; catarrh 2 ; conjunctivitis 3 ; catarrhal jaundice 1 ; cutaneous ringworm 1 ; dermatitis 1 ; erythema 2 ; endocarditis 1 ; furunculosis 6 ; gastritis 1 ; hordeolum 5 ; hæmatoma 1 ; herpes cruralis 1, facialis 5, labialis 2 ; impetigo 26 ; incisions 9 ; lichen urticatus 1 ; laryngitis 2 ; nephritis 3 ; paracentesis 3 ; pharyngitis 1 ; paronychia 22 ; rheumatism 14 ; septic heel 1 ; scabies 3 ; stomatitis 1 ; tonsillitis 11 ; vaginal discharge 1.

27 cases developed another infection : chicken pox 13 ; nasal diphtheria 5 ; measles 6 ; erysipelas 2 ; measles, chicken pox and nasal diphtheria 1.

The average stay in hospital for all cases discharged well was 37·21 days, and for the two fatal cases 25 days.

The following table indicates the period of residence of the 682 cases of scarlet fever uncomplicated with another disease, who were discharged well in 1930 :—

Week of discharge.	Number of days in residence when discharged.	Number of cases in each day.	No. of cases in each week.
Under fourth	— — — — —	— — — — —	2
Fourth	22 23 24 25 26 27 28	— 1 3 2 7 18 57	88
Fifth	29 30 31 32 33 34 35	89 74 82 55 51 31 15	397
Sixth	36 37 38 39 40 41 42	26 12 12 12 13 4 7	86
Seventh.....	43 44 45 46 47 48 49	2 9 4 6 13 3 1	38
Eighth.....	50 51 52 53 54 55 56	5 4 3 2 6 — 2	22
Ninth	57 58 59 60 61 62 63	5 2 2 2 1 1 2	15
Tenth	64 65 66 67 68 69 70	1 6 4 1 2 2 3	19
Over Tenth	— — — — —	— — — — —	15
Total Number of Cases.....			682

RETURN CASES :—15 cases were reported to have been infected by cases returned from hospital.

SCHICK TEST IN SCARLET FEVER AND OTHER DISEASES.

The following table shows the age distribution of patients suffering from scarlet fever and other diseases who underwent the Schick Test:—

	Age Periods.												Total.
	under 1	1	2	3	4	5	6	7	8	9	10	over 10	
+ ve	4	10	12	24	34	34	16	23	28	14	8	50	257
—ve	1	7	18	31	47	42	40	37	45	25	23	104	420
Totals	5	17	30	55	81	76	56	60	73	39	31	154	677

Of the 257 susceptibles, 166 were immunized with Toxoid (weekly doses : 0.5 c.c., 1 c.c. and 1.5 c.c.).

Although the numbers are too small, there is no doubt that the proportion of negative reactions is too great in the age group 2 to 6. In one or two instances where the patient was re-tested subsequently it has been found that the test previously negative has become positive.

Most of these tests were performed in Scarlet Fever patients within the first few days of their admission ; the majority of the patients received 5 c.c. of Scarlatinal Antitoxin, and whether this has any bearing on this high proportion of negatives or whether the test technique has been at fault has not yet been determined.

Diphtheria.

The number of admissions of this disease greatly exceeded that of last year, 606, and the average for the five year 1925–29, 445.4. 753 cases were admitted during the year and 80 remained from last year ; of

these 702 were discharged well, 27 died and 104 remained in hospital at the end of the year. 907 cases were admitted certified as diphtheria; in 161 cases the diagnosis had to be revised, and, in addition, 5 cases sent in as scarlet fever, 1 sent in as a mixed infection and 1 other disease proved to be diphtheria. The disease was of a fairly malignant type, as shown by the large proportion of severe cases. The amount of antitoxin given has been again increased, and in a large number, 81, of the most severe cases part of the antitoxin was given intravenously. Glucose and insulin were also added in a number of these. In a few of the very worst cases the antitoxin was also given intrathecally.

TYPE OF DISEASE.

Of the discharged cases, 574 were faucial, 38 laryngeal, 50 nasal, 5 faucial and nasal and 21 faucial and laryngeal. There were also 14 cases of bacteriological diphtheria.

Faucial Diphtheria.

In 599 cases, including 25 fatal ones, the faucial region of the throat was affected.

MILD.—288 of the cases were mild, the deposit on the throat being localized to the tonsils with little or no toxæmia. The average amount of serum given was 9,222 units. All these mild cases made a complete recovery. 30 cases had antitoxin before admission.

COMPLICATIONS AND SEQUELÆ.—Herpes facialis 1; carrier and peripheral neuritis 1; peripheral neuritis 1; albuminuria 3; furuncle, carrier, paronychia, peripheral

neuritis and palatal paralysis 1, impetigo and carrier 1, blepharitis 1, bronchitis 2, carrier 12; cardiac arrhythmia 3; cardiac arrhythmia and rheumatism 1; enteritis and furuncles 1; enteritis and albuminuria 1; furuncles 1; impetigo 5; nephritis 1; otorrhœa 8; paronychia 1; paronychia and otorrhœa 1; psoriasis 1; palatal paresis and cardiac dilatation 1; peripheral neuritis and cardiac dilatation 1; palatal paresis 1; lr. limb paresis 4; tonsillitis 2; styne 2; tonsillitis and carrier 1; tonsillitis 5; vulvo-vaginitis 1.

1 case developed chicken pox.

1 „ „ rubella.

1 „ „ whooping cough.

4 cases „ measles.

2 „ „ scarlet fever.

MODERATE—In 189 cases the membrane was more extensive and was accompanied by toxæmia. The average amount of serum given was 28,952 units. 13 cases had antitoxin before admission. There were no deaths in this group, all cases recovering completely.

COMPLICATIONS AND SEQUELÆ.—Palatal paralysis and jaundice 1, adenitis, abscess and drainage 1, cardiac arrhythmia 7, adenitis and tonsillitis 2, cardiac arrhythmia and peripheral neuritis 1; impetigo, peripheral neuritis and palatal paralysis 1; palatal paralysis and strabismus 1, strabismus 4, lr. limb paresis 2, furunculosis 3, cardiac arrhythmia and lr. limb paresis 1, otorrhœa and peripheral neuritis 1, arthritis and erythema nodosum 1, impetigo 2, impetigo and palatal paralysis 1, peripheral neuritis 1, impetigo and otorrhœa 1, furunculosis and

carrier 1, cardiac arrhythmia and palatal paralysis 3, conjunctivitis 1, otorrhœa and peripheral neuritis 1, relapse and carrier 1, arrhythmia, palatal paralysis and paronychia 1, alveolar abscess, carrier blepharitis, and lr. limb paresis 1, cardiac arrhythmia and herpes labialis 1, carrier 7, erythema 2, furuncles 2, otorrhœa 3, paronychia 1, palatal paralysis 3, palatal paralysis and peripheral neuritis 1.

3 cases developed chicken pox.

3 „ „ measles.

SEVERE.—122 cases, including 25 fatal ones, were of the severe type. The average amount of serum given was, for the 97 discharged, 78,000 units, and for the 25 fatal cases, 125,000 units. 7 cases, including 2 fatal ones, received antitoxin before admission.

COMPLICATIONS AND SEQUELÆ.—Furunculosis 1, tonsillitis and palatal paralysis 2, otorrhœa, pharyngeal and diaphragmatic paralysis 1, strabismus, peripheral neuritis and palatal paralysis 1, cardiac arrhythmia 7, palatal and ocular paralysis 1, otorrhœa 1, strabismus, otorrhœa, cardiac arrhythmia and palatal paralysis 3, adenitis and incision 1, otorrhœa and palatal paralysis 1, strabismus, lr. limb paresis, cycloplegia, cardiac arrhythmia and palatal paralysis 1, cardiac arrhythmia, palatal paralysis, lr. limb paresis, furuncle and carrier 1, tonsillitis 2, bradycardia, stomatitis and styte 1, adenitis, incision and cardiac arrhythmia 1, cardiac arrhythmia and otorrhœa 1, cardiac arrhythmia and lr. limb paresis 2, cardiac arrhythmia and cycloplegia 2, paralysis (legs) 1, palatal paralysis 10, palatal and pharyngeal paralysis 2,

palatal and pharyngeal strabismus, furunculosis, peripheral neuritis, acute nephritis 1, peripheral neuritis, styte 1, palatal and pharyngeal paralysis, paracentesis, strabismus, otorrhœa and carrier 1, palatal and lr. limb paresis 2, peripheral neuritis, strabismus, palatal paralysis 2, lr. limb paresis, strabismus, palatal paralysis 2.

1 case developed chicken pox.

1 „ „ scarlet fever.

5 cases „ measles.

COMPLICATIONS OF FATAL CASES.—Palatal paralysis and circulatory paralysis 2, circulatory paralysis 14, circulatory paralysis, otorrhœa, albuminuria and cellulitis 1, circulatory failure, albuminuria and palatal paralysis 1, circulatory paralysis and cardiac arrhythmia 1, circulatory paralysis, albuminuria and embolism 1, cardiac failure 3, palatal, pharyngeal and diaphragmatic paralysis, otorrhœa, albuminuria and strabismus 1, palatal, pharyngeal and diaphragmatic paralysis and albuminuria 1.

Laryngeal Diphtheria.

In 40 cases, including 2 fatal ones, the larynx was involved.

MILD.—In 19 cases the laryngeal obstruction was slight. The average amount of serum given was 15,368 units. 3 cases received antitoxin before admission.

COMPLICATIONS AND SEQUELÆ.—Adenitis 1, otorrhœa 1, rhinorrhœa 7, tonsillitis, carrier, adenitis and abscess 1.

MODERATE.—In 9 cases the laryngeal obstruction was moderately severe. The average amount of serum given was 21,777 units.

COMPLICATIONS AND SEQUELÆ.—Cardiac arrhythmia 2, rhinorrhœa 3.

SEVERE.—In 12 cases, including 2 fatal ones, the obstruction to the breathing was severe. 9 cases required tracheotomy. The average amount of serum given was 35,800 units to the discharged cases and 52,000 to the two fatal cases. Tracheotomy gave only temporary relief to the fatal cases, the membrane having extended too far down (trachoe-bronchial extension). A suction apparatus was employed, but without success in these two cases. It proved of value in others.

COMPLICATIONS AND SEQUELÆ.—Adenitis and enteritis 1, furuncle 1, otorrhœa 1, septic wrist 1.

1 case developed chicken pox.

Faucial and Laryngeal Diphtheria.

The fauces and larynx were involved in 21 cases, and one of these received antitoxin before admission to the hospital. 3 cases were mild, 9 moderate and 9 severe in type. The average amount of serum given was: for the mild cases 20,000 units, for the moderate 37,777 units, and for the 9 severe 48,222 units. 7 cases required tracheotomy.

COMPLICATIONS AND SEQUELÆ: MILD.—Nil.

MODERATE.—Cardiac arrhythmia 1.

SEVERE.—Adenitis 4, impetigo 2, cardiac arrhythmia 1, cardiac arrhythmia, albuminuria and carrier 1, otorrhœa 1.

1 case developed measles.

Nasal Diphtheria.

There were 50 cases of nasal diphtheria, and the average amount of serum given was: for the 47 mild cases 7,319 units and for the 3 moderate cases 14,666 units.

COMPLICATIONS AND SEQUELÆ: MILD.—Erythema multiforme 1, carrier and boils 1, carrier 6, bronchitis, otorrhœa, adenitis, abscess, incision and carrier 1, palatal paralysis, paronychia and carrier 1, otorrhœa 4, furuncles 1, rhinorrhœa, abscess and furuncles 1, septic finger 1.

3 cases developed measles.

MODERATE.—Carrier 1.

Faucial and Nasal Diphtheria.

For the 2 mild cases of this type of diphtheria the average amount of serum given was 18,000 units and for the 3 moderate 22,666 units.

COMPLICATIONS AND SEQUELÆ: MILD.—Paronychia 1, otorrhœa 1.

The following table summarises the sites of membrane in the total clinical cases discharged:—

SITE OF MEMBRANE.	MILD.		MODERATE.		SEVERE.		TOTAL.	
	Recovered	Died	Recovered	Died	Recovered	Died	Recovered	Died
Faucial	288	..	189	..	97	25	574	25
Laryngeal and Faucial .	3	..	9	..	9	..	21	..
Laryngeal	19	..	9	..	10	2	38	2
Nasal	47	..	3	..	..	..	50	..
Nasal and Laryngeal ..	..	..	..	..	..	..	..	..
Nasal and Faucial	2	..	3	..	..	..	5	..
Totals	359	..	213	..	116	27	688	27

DIPHThERITIC PARALYSIS.—66, or 9·4% of the clinical cases discharged had paralysis in one form or another whilst in hospital.

COMPLICATIONS.—459, or 65·4% of the recovered cases developed one or more complications. This figure does not include serum rashes.

Tracheotomy was performed in 16 instances with 2 fatalities.

FATALITY RATE.—27, or 3·8% of the clinical cases were fatal.

ANTITOXIN.—53, or 7·5% of the cases discharged had antitoxin before admission to the hospital, and 2 of the fatal cases. The average amount of serum given in hospital in the recovered cases was 27,520 units, and

102,333 units in the fatal cases. In addition, 81 cases, including 21 fatal cases, had part of the antitoxin injected intravenously. 132 cases developed a serum rash.

Dick Test in Diphtheria.

The Dick test was performed in 690 cases of diphtheria, 430 of these were positive and 260 were negative. The positive reactors were inoculated with scarlet fever prophylactic at weekly intervals (500, 2,000, 6,000, 15,000 skin test doses). Three cases of scarlet fever occurred amongst diphtheria patients during the year.

Age Periods of Diphtheria Cases.

Years.....	Under.										Over.	Totals.	
	1	1	2	3	4	5	6	7	8	9	10		10
Positive.....	4	13	39	51	51	58	48	42	26	15	14	69	430
Negative ...	2	2	7	9	20	24	26	29	28	25	20	68	260
Totals ..	6	15	46	60	71	82	74	71	54	40	34	137	690

Enteric Fever.

30 cases were admitted under this diagnosis, but in 11 instances this had to be revised. 17 cases were discharged well.

COMPLICATIONS.—Hæmorrhage 1, otorrhœa 1, peridental abscess, hæmorrhage, otitis media and bronchitis 1, relapse 1.

There were two fatal cases, one of which died from broncho-pneumonia.

Puerperal Fever.

31 cases were admitted under this diagnosis, but in one instance the diagnosis had to be revised. Of the

32 cases under treatment, 25 were discharged, 2 died and 5 were in hospital at the end of the year. The 25 discharged cases were classified as follows: Puerperal fever 3, puerperal mania 1, puerperal pyrexia 1, puerperal sepsis 13, puerperal septicæmia 1, mammary abscess 2, miscarriage 1, phlegmasia alba dolens 3, and the two fatal cases as puerperal septicæmia.

COMPLICATIONS.—Catarrhal jaundice 1, phlegmasia alba dolens 1, parametritis and albuminuria 1.

There were 19 babies admitted with their mothers.

Erysipelas.

109 cases were admitted as erysipelas during the year, but in 13 cases the diagnosis had to be revised. 96 cases were discharged well, 5 had fatal terminations and 5 were in hospital at the end of the year.

COMPLICATIONS OF THE DISCHARGED CASES.—Albuminuria 1, abscess and incision 2, abscess and decubitus 1, bronchitis 2, cellulitis and incisions 3, cellulitis, incisions and thrombosis 1, cellulitis, incisions and otorrhœa 1, cellulitis, incisions and diabetes 1, eczema 1, otitis media and paracentesis 1, otorrhœa 1, peritonsillar abscess 1, rheumatism 1, rhinorrhœa 1, rhinorrhœa and otorrhœa 1, ulcer 1.

COMPLICATIONS OF THE FATAL CASES.—Broncho-pneumonia 2, bronchitis and heart failure 1, thrombophlebitis and toxæmia 1, toxæmia and heart failure 1.

STAFF.—On December 31st, 1930, the resident staff of the sanatorium consisted of the following :—

Medical Superintendent	1
Assistant Resident M.O.'s.....	2
City Bacteriologist	1
Matron	1
Assistant Matron	1
Stores Sister	1
Sister Tutor	1
Night Sister	1
Sisters	9
Staff Nurses	14
Assistant Nurses	3
Probationers	45
Cook	1
Maids	35
Laundress	1
Lodge Porters	2
<hr/>	
Total Resident Staff.....	119
<hr/>	

The Non-Resident Staff consisted of :—

Visiting Aural Surgeon	1
Clerk	1
Junior Clerk	1
Engineer	1
Plumber.....	1
Firemen	3
Gardener	1
Assistant Gardeners	2
Porters	5

Non-Resident Staff—*continued*.

Seamstresses	2
Assistant Seamstress.....	1
Head Laundress	1
Laundresses	15
Cleaners	4
<hr/>	
Total Non-Resident Staff	39
<hr/>	

Mrs. G. K. Rowan, the Matron, retired on superannuation at the end of March, and Miss E. M. Lea, her assistant, was appointed Matron.

Mrs. Rowan retired after 19 years' service. This hospital has been extremely fortunate to have her as Matron for so long a time; she had been previously Matron of Ruchill Hospital, Glasgow, one of the largest Fever Hospitals in the British Isles. She reorganized the whole of the Nursing and Housekeeping departments here, both of which were in a very disorganized state when she assumed duties. She has worked hard and well; not sparing herself, she demanded hard work from others. She managed her staff excellently, and was respected and liked by all the Ladywell Staff. The Committee presented her with an illuminated address, and her friends and staff with useful gifts and an album of Ladywell photographs.

HEALTH OF STAFF.—The following were the illnesses: Abscesses 3, cellulitis 1, diphtheria 2, vincent's angina 1, erysipelas 1, impetigo 1, laryngitis 1, metrorrhagia 1, mumps 1, otitis media 1, pleuro-dynia 1, rheumatism 2.

scarlet fever 2, sore throat 1, scald 1, tonsillitis 12. 5 nurses were found to be carrying diphtheria bacilli.

The staff, both nurses and maids, have been tested by the Schick and Dick tests, and, if positive, immunized against diphtheria and scarlet fever.

74 were Schick tested, and 20 gave a positive reaction ; all these were inoculated with 3 doses of Toxoid at weekly intervals. Three months later 14 were retested, the others having left, and 3 were still positive ; they received one more inoculation and a month later were negative. 70 had the Dick test done, and 14 of these were positive ; they were all inoculated with 500, 2,000, 6,000, and 15,000 skin test doses of Scarlatinal Toxin, and of 11 on a retest a month later 3 still remained positive ; a further dose was given and a month after they all 3 were negative.

Two of the Staff, a probationer nurse and a maid, contracted diphtheria in a mild form.

The nurse was Schick-tested on joining and gave a positive reaction ; she was inoculated with three doses of Toxoid at weekly intervals ; three months after the last dose she was tested again and being found faintly positive still, was given another dose of Toxoid ; two months later she gave a negative Schick test ; three months after this she contracted diphtheria in a mild form. The Schick test was repeated and was still negative.

The maid, on joining, gave a negative Schick test and six weeks later contracted diphtheria, also of a mild type.

The only feasible explanation which I can think of in the first case is that the nurse received a massive infection of diphtheria and that this overwhelmed the local tissues—the tonsils; her tonsils were large and unhealthy; she suffered from repeated sore throats—inflammation of tonsils—until the tonsils were removed by operation; this was done here and she has been free from throat trouble since. In the second case a similar explanation has to be assumed. Although the Schick test was done only once, it is not beyond possibility that some unobserved fault in the technique of the test may have occurred. She was not retested, unfortunately. One probationer nurse and one outside temporary nurse contracted Scarlet Fever.

The Dick test was performed upon the probationer and a positive reading obtained; she was inoculated with 500, 2,000, 6,000, 15,000 skin test doses of Scarlatinal Toxin at weekly intervals, and a month after the last dose a negative Dick was obtained. Seven months later she contracted typical mild Scarlet Fever. The Dick test was not repeated; the disease was mild, with no complications. The temporary nurse was not tested.

THE WORK OF THE TRAINING SCHOOL.—During the year 2 passed the preliminary and 2 the Final State examinations. The usual course of lectures was given by the Medical Staff and the Sister Tutor.

Operating Theatre.

The number of operations in the theatre was 29, all requiring general anæsthesia: minor operations are not included; numerous incisions were done on the wards, some requiring general nitrous oxide gas anæsthesia; others required local anæsthetics only.

Particulars of the operations in the theatre are:—

Disease and Complication.	Operation.	Recov.	Died.	Total.
Scarlet Fever.....Enlarged Tonsils	Tonsillectomy and Adenoidectomy.	3	—	3
„ „Otitis Media	Tonsillectomy and Adenoidectomy.	7	—	7
„ „Otitis Media and Acute Mastoiditis.	Schwartzes Operation.	4	1*	5
„ „Otitis Media and Acute Mastoiditis.	Schwartzes Operation and Tonsillectomy and Adenoidectomy.	1	—	1
Diphtheria .....Carrier.....	Tonsillectomy and Adenoidectomy.	5	—	5
„Otitis Media	Tonsillectomy and Adenoidectomy.	4	—	4
Measles .....Otitis Media	Tonsillectomy and Adenoidectomy.	1	—	1
Puerperal Septicæmia Peritonitis	Laparotomy	—	1	1
		25	2	27

* Died subsequently from Streptococcal Meningitis.

Bed Isolation Ward.

This ward contains 16 beds. Each patient is nursed separately from the others and nothing which has been in contact with the patient or anything from his bed is allowed to touch any other patient or bed unless it has been sterilized. This sterilization is done by steam whenever possible, or by disinfection with Izal. Nurses have to wear separate gowns, and scrub their hands every time they attend a patient.

Free ventilation is also insisted upon. All varieties of diseases were admitted. The ward was busy all

through the year, the demand for isolation being always great.

198 cases were admitted during the year.

The following is a table of the diseases :—

Sent in as—	Diagnosis after observation.
Scarlet Fever 79	Scarlet Fever 36
	Scarlet Fever and Diphtheria 7
	Scarlet Fever and Chicken Pox . . . 3
	Scarlet Fever and Parapsoriasis . . 1
	Diphtheria 2
	Measles 2
	Measles and Nasal Diphtheria . . . 1
	Chicken Pox 1
	Rubella 2
	Influenza 1
	Erythema 4
	Tonsillitis and R. Otorrhœa 1
	Tonsillitis 15
	Impetigo 1
	Paronychia 1
	Bronchitis 1
	—
	79
	—
Enteric Fever 16	Typhoid Fever 8
	Paratyphoid B. 3
	Influenza 1
	Constipation 1
	Lobar Pneumonia 1
	T.B. Meningitis 2
	—
	16
	—

Sent in as—		Diagnosis after observation.	
Diphtheria	79	Diphtheria	54
		Scarlet Fever.....	9
		Diphtheria and Scarlet Fever	2
		Measles	2
		Septic knee and Septicæmia	1
		Tonsillitis	4
		Laryngitis.....	3
		Syphilitic throat	1
		Laryngismus stridulus	1
		Rhinitis.....	1
		Suppurative Adenitis	1
		—	—
			79
		—	—
Mumps	1	Mumps	1
Tuberculosis	3	Tuberculosis	3
Measles.....	1	Measles	1
Measles and Pneumonia.	1	Measles	1
Septic Arm	1	Septic arm and Cellulitis	1
Meningitis	1	Bronchitis.....	1
Erysipelas	9	Erysipelas.....	8
		Abscess (face)	1
Erysipelas and Measles .	1	Measles and Broncho-pneumonia ..	1
Chicken Pox	1	Chicken Pox	1
Diphtheria and Mumps .	1	Mumps	1
Diphtheria and Measles	4	Diphtheria	3
		Septic Scarlet Fever	1
	—	—	—
	24		24
	—		—

On three occasions cross-infection occurred : Measles gave rise to one, Chicken Pox to another and Scarlet Fever to a third instance. In each there were no further cases.

Report as to the Work of the Visiting Aural Surgeon to the Hospital.

The work of dealing with the diseases of the ear, nose and throat has proceeded along effective lines during the year, and no marked change of method has been necessary.

Very satisfactory results were obtained, especially in those cases in which the ear disease occurred for the first time during the patient's stay in hospital, and in which a previous history of middle ear disease was not given. Of those contracting ear trouble with discharge during the illness for which they were admitted to hospital, 83 per cent left hospital with intact drums, about 10 per cent with perforated drums but dry ears, and the remainder with some discharge from the ear.

Increasingly satisfactory was the system of following up discharged patients of school age by means of the school ear clinic. An encouraging feature was the appreciation expressed by some of the parents of the scope of the scheme. Similarly a number of cases of tuberculosis of the larynx were seen after discharge at the request of the Tuberculosis Department.

Cases admitted having discharge from the ear already presented the greatest difficulty, although better results were obtained even in these cases than would be the case if similar patients were treated as out-patients. In certain cases of erysipelas in the adult, it appeared likely that chronic ear trouble provided a source of recurrent

attacks of this serious disease, and these cases, often on account of bone disease in the ear, were very resistant to local treatment of that organ.

Again, full use has been made of the services of the Visiting Aural Surgeon in investigating cases in which the temperature was elevated without obvious reason, and in many such cases early middle-ear disease was found and treated. Early incision of the drum of the ear was carried out whenever necessary and accounted for some of the good results obtained.

A number of visits were made to see emergency cases and to perform emergency operations, though it is often possible to anticipate and avoid serious trouble when bi-weekly visits are made.

The work has owed a good deal to the interest of the Medical Superintendent and his staff, and great help has resulted from their keenness.

Total number of examinations made	875
Number of tonsil and adenoid operations.....	22
Number of ear operations :	
Mastoid (Schwartze type)	5
Exploration old radical wound	1
Paracentesis tympani	15

Appended are the usual Statistical Tables.

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

Abscess	5	Mumps	2
„ Retro-pharyngeal .	1	Metrorrhagia	1
„ Peri-tonsillar	5	Meningitis (influenza)	1
„ Peri-dental	2	Lobar Pneumonia	3
Adenitis	1	Otitis Media	1
Bronchiectasis	1	Pleuro-dynia	1
Broncho-pneumonia	1	Rubella.....	9
Bronchitis	5	Rhinitis	4
Chicken Pox	5	Rheumatism	3
Carbuncle	1	Sore Throat.....	2
Constipation	1	Suppurative Arthritis	1
Cellulitis	1	Scald	2
Erythema.....	10	Specific Throat (sy.)	1
Enema rash.....	1	Septic Throat	1
Eczema.....	3	Septic Finger	1
Encephalitis Lethargica ...	1	Tonsillitis	119
Gastro-Enteritis	2	„ and Otorrhœa... ..	1
Herpes face	1	T.B. Meningitis	2
Impetigo	3	Vincent's Angina.....	2
Influenza	6	With mother	19
Influenzal Broncho-		Whitlow	1
Pneumonia.....	1	Whooping Cough	1
Infective Endocarditis	1		—
Laryngitis	8		245
Laryngismus stridulus.....	1		—

TABLE I.

STATEMENT OF THE NUMBER OF PATIENTS UNDER TREATMENT IN
LADYWELL SANATORIUM IN 1930.

	Males.		Females.		Totals
	Under 5 years	Over 5 years	Under 5 years	Over 5 years	
I.—PATIENTS REMAINING IN HOS- PITAL ON DECEMBER 31st, 1929, AFFECTED WITH—					
Scarlet Fever.....	12	26	12	25	75
Mixed Infections.....	2	2	..	3	7
Measles .....	..	..	1	1	2
Enteric Fever .....	..	..	..	..	..
Diphtheria	10	30	14	26	80
Erysipelas .....	..	4	..	6	10
Puerperal Fever .....	..	..	..	2	2
Tuberculosis (Advanced) .....	..	36	..	26	62
Other Diseases	5	5	3	10	23
Totals	29	103	30	99	261
II.—ADMITTED DURING THE YEAR ENDED DECEMBER 31st, 1930, AFFECTED WITH—					
Scarlet Fever.....	122	248	84	259	703
Mixed Infections.....	11	15	20	23	69
Measles	13	8	4	1	26
Enteric Fever	1	8	..	10	19
Diphtheria	121	243	86	303	753
Erysipelas.....	1	46	1	48	96
Puerperal Fever .....	..	..	..	30	30
Tuberculosis (Advanced)	1	157	..	129	287
Other Diseases	34	48	35	128	245
Totals	294	773	230	931	2228
Total under treatment, 1930	323	876	260	1030	2489
III.—OF THE ABOVE THERE WERE DISCHARGED, RECOVERED FROM—					
Scarlet Fever.....	110	256	84	259	709
Mixed Infection	9	12	18	19	58
Measles	9	8	5	2	24
Enteric Fever	1	7	..	9	17
Diphtheria	111	228	86	277	702
Erysipelas.....	1	45	1	49	96
Puerperal Fever .....	..	..	..	25	25
Tuberculosis (Advanced) .....	..	119	..	94	213
Other Diseases	32	49	35	132	248
Totals	273	724	229	866	2092

TABLE I—Continued.

STATEMENT OF NUMBER OF PATIENTS—Continued.

	Males.		Females.		Totals
	Under 5 years	Over 5 years	Under 5 years	Over 5 years	
IV.—DIED FROM—					
Scarlet Fever.....	1	..	2	..	3
Mixed Infection	1	..	1	2	4
Measles	4	..	..	..	4
Enteric Fever .....	..	1	..	1	2
Diphtheria	2	10	4	11	27
Erysipelas .....	..	4	..	1	5
Puerperal Fever .....	..	..	..	2	2
Tuberculosis (Advanced) .....	..	42	..	32	74
Other Diseases	2	4	..	4	10
Totals	10	61	7	53	131
V.—REMAINING IN HOSPITAL ON DECEMBER 31st, 1930, AFFECTED WITH—					
Scarlet Fever.....	13	18	10	25	66
Mixed Infection	3	5	1	5	14
Measles .....	..	..	..	..	..
Enteric Fever .....	..	..	..	..	..
Diphtheria	18	35	10	41	104
Erysipelas .....	..	1	..	4	5
Puerperal Fever .....	..	..	..	5	5
Tuberculosis (Advanced)	1	32	..	29	62
Other Diseases	5	..	3	2	10
Totals	40	91	24	111	266

TABLE II.

MONTHLY STATEMENT OF PATIENTS FOR THE YEAR ENDED DECEMBER 31ST, 1930 ; TOGETHER WITH A COMPARISON WITH THE YEAR 1929, AND WITH THE MEAN OF THE FIVE (5) AND FORTY-SEVEN (47) YEARS ENDED DECEMBER 31ST, 1929.

Month.	Admissions, 1930.	Admissions, 1929.	Mean of Admissions, 5 years, 1925-1929.	Mean of Admissions, 47 years, 1883-1929.	Daily Average No. of Patients in Hospital, 1930.	Daily Average No. of Patients in Hospital, 1929.	Mean of Daily Average No. of Patients in Hospital, 5 yrs., 1925-1929.	Mean of Daily Average No. of Patients in Hospital, 47 yrs., 1883-1929.
January	224	209	150.4	117.2	267.0	237.6	205.2	141.9
February	198	139	126.8	95.7	286.5	252.0	214.8	133.7
March	215	168	140.2	101.8	272.2	233.2	211.3	125.1
April	160	162	134.2	97.1	269.4	230.4	207.5	118.9
May	197	186	140.0	101.0	245.3	235.0	198.2	117.1
June	148	156	134.0	100.1	243.3	246.5	194.6	113.7
July	168	162	142.2	108.8	243.8	234.8	197.6	122.4
August	168	145	126.4	107.0	239.9	235.7	192.8	125.2
September	173	174	167.2	129.6	243.3	242.0	209.3	140.0
October	176	229	208.6	152.9	245.2	270.1	246.8	160.3
November	211	201	165.4	139.8	273.1	286.5	258.0	170.6
December	190	199	149.6	123.1	276.6	279.49	235.8	157.4
Totals	2228	2130	..	..	..	..	..	..
Monthly Av'ges.	..	177.5	148.7	114.5	258.8	248.6	214.3	135.5

TABLE III.

SHOWING THE NUMBER OF ADMISSIONS OF THE PRINCIPAL INFECTIOUS DISEASES FOR THE YEAR ENDED DECEMBER 31ST, 1930; ALSO A COMPARISON WITH THE YEAR 1929, AND WITH THE MEAN OF THE FIVE YEARS AND FORTY-SEVEN YEARS ENDED DECEMBER 31ST, 1930.

Month.	Scarlet Fever.	Mixed Diseases.	Measles.	Enteric Fever.	Typhus Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Smallpox.	Advanced Tuberculosis	Other Diseases.	Totals.
January	69	6	3	2	..	78	7	1	..	29	29	224
February	56	7	5	3	..	69	9	2	..	20	27	198
March	84	5	9	1	..	59	5	4	..	25	23	215
April	46	6	5	4	..	46	14	..	..	23	16	160
May	61	6	4	1	..	54	7	2	..	40	22	197
June	43	5	..	1	..	57	5	2	..	18	17	148
July	65	4	..	3	..	50	4	2	..	19	21	168
August	41	4	..	2	..	70	7	4	..	23	17	168
September ...	40	5	..	2	..	71	5	4	..	25	21	173
October	59	2	..	..	..	57	13	4	..	21	20	176
November ...	78	10	..	..	..	69	10	2	..	24	18	211
December	61	9	..	..	..	73	10	3	..	20	14	190
Totals	703	69	26	19	..	753	96	30	..	287	245	2228
Totals, 1929 ..	707	60	24	10	..	606	96	27	..	274	326	2130
Increase, 1930	..	9	2	9	..	147	..	3	..	13	..	98
Decrease, 1930	4	..	..	..	..	..	..	..	..	..	81	..
Mean of 5 years 1925-1929..	714.8	28.6	15.4	12.2	..	445.4	64.4	21.6	..	257.0	232.6	1785.0
Mean of 47 years— 1883-1929..	826.6	3.0	4.2	116.3	4.5	207.1	32.8	10.9	12.8	50.3	128.1	1397.1

TABLE IV.
ANNUAL STATEMENT.

Disease.	No. of Cases Remaining on Dec. 31st, 1929.	No. of Cases Treated.	No. of Cases Admitted.	No. of Cases Discharged.	No. of Deaths.	No. of Cases Remaining on Dec. 31st, 1930.
Scarlet Fever..	75	778	703	709	3	66
Mix'd Infections	7	76	69	58	4	14
Measles	2	28	26	24	4	..
Enteric Fever..	..	19	19	17	2	..
Diphtheria	80	833	753	702	27	104
Erysipelas.....	10	106	96	96	5	5
Puerperal Fever	2	32	30	25	2	5
Tuberculosis (Advanced) ..	62	349	287	213	74	62
Other Diseases.	23	268	245	248	10	10
Total	261	*2489	†2228	2092	131	†266
Corresponding figures, 1929 .		2358	2130	1958	139	261
Average five years .....		..	1785.0	1642.0	125.4	223.6
		From "Out-Districts."	From "Out-Districts."	From "Out-Districts."		
1930.....		*455	†408	†73		
1929.....		469	423	47		

Report on Diphtheria Immunisation for 1930, and a Short Review of work since its inception, to March, 1931.

—

The work of the two clinics was continued uninterruptedly through the year; the attendances decreased in the second half of the year. The figures for 1930 are as follows:—

	Total of both Clinics.
Number who had a course of three inoculations	277
Number of Schick tests (not re-tests) 207	Of these 85 were positive.
Number of Schick re-tests after inoculations	224

LADYWELL SANATORIUM.

Number of patients inoculated	166
Number of Schick tests	677
	Of these 257 were positive.
Staff inoculated	20
Schick tests	74
	Of these 20 were positive.

The authorities of Salford Royal Hospital continued to test and immunise their staff, and there have been two cases of diphtheria—one sister and one nurse. The sister had not been Schick tested; the nurse was reported to have been Schick negative.

In addition, in February, 1930, diphtheria immunisation was introduced into one Resident School (Home for Crippled Children) at the request of the supervising

Medical Officer, Dr. McGowan. Dr. Edge demonstrated the method and schicked 71 children and staff; of this number 40 gave a positive and 31 a negative reaction. Children under 5 were immunised without a preliminary test. Dr. McGowan undertook the inoculations and further tests on newcomers and their protection. The school has been entirely free from diphtheria since March of that year.

Results of Immunisation.

(Based on figures from the commencement of the clinics in September, 1929, to the middle of March, 1931.)

The method adopted from the beginning was to schick all children of 7 and over and to inoculate all younger children; the inoculations (0.5 c.c., 1 c.c., and 1.5 c.c. of Toxoid, B. & W.) were given at weekly intervals, and the children were schicked three months after the last dose. The positive reactors were given another dose of Toxoid, 0.5 c.c., and schicked again one month later. This Schick testing after immunisation is considered to be an essential feature in an Anti-diphtheria Immunisation Campaign, if this is to be prosecuted on a sound basis.

The results of the inoculations are set out in the table below (only completed cards were counted):—

Total of three inoculations.	Schicks three months later.	Readings		Schick, 1 month after fourth inoculation.	Neg.	Pos.
		Negative.	Positive.			
389	343	255	81	80	76	3

It will be seen that three months after the last inoculation 75·9 per cent of the inoculated who were re-tested had become negative. After an additional inoculation of 0·5 c.c. of Toxoid a month later, 95 per cent of the still positive reactors became negative.

The result of inoculations, 75·9 per cent of immunes, could be better, and from the 1st of April, 1931, fortnightly inoculations of the same doses have been adopted in the expectation that the same inoculations with the longer intervals between them will produce a larger proportion of immunes.

Since the inception of the immunisation campaign in September, 1929, until the time of writing (middle of March, 1931), three cases only have come to light in which the Schick test, being negative previously, was subsequently shown either to have become positive or the person schicked to have become susceptible. Two contracted diphtheria, both in a mild form, and the third having come to hospital with scarlet fever was tested and gave a positive response. One of the two diphtheria cases was schicked and the test was this time positive; the other one was not tested. All three had been tested in Ladywell during their residence there as scarlet fever patients, and there is no doubt that either some unobserved error occurred in technique, or the test may have been modified by the administration of Scarlet Fever Antitoxin (horse serum which may have contained some Diphtheria Antitoxin). Amongst the staff at Ladywell (exposed as they are to constant massive

diphtheria infection) since 1925, the year when immunisation was begun, 9 cases of diphtheria, all mild, have occurred; two cases only of these (one nurse and one maid) contracted diphtheria in spite of negative Schick tests; the others had not completed the tests or inoculations.

The following particulars about these two cases are taken from the Annual Report relating to the Ladywell Sanatorium for 1930 :—

The nurse was Schick positive on joining and was inoculated with three doses of Toxoid. Three months afterwards the Schick test was still positive, but faintly, and a further dose of Toxoid was given; two months later she gave a negative test; three months after this she contracted diphtheria in a mild form. The Schick test was repeated before antitoxin was given, and was still negative.

The other case, a maid, on joining gave a negative test; six weeks later she developed diphtheria, also of a mild type. She was not re-tested.

The only feasible explanation which occurs to the writer in the first instance is that the nurse received a massive infection of diphtheria and that this overwhelmed the local tissues—the tonsils; her tonsils were large and unhealthy. She suffered from repeated attacks of tonsillitis, until her tonsils were removed by operation, since when she has been quite free from throat trouble. In the second case it is not beyond possibility that an unobserved error in technique may have occurred.

In a test like the Schick test, a quantitative test, border-line cases are bound to occur, which may be read wrongly; in the clinics the tests are only read after a week, and not infrequently cases are seen in the hospital who gave a passing erythema for a day or two and who no doubt would be classed as faintly positive, but who in the clinics would be read as negative. Exceptions are bound to occur in any, even very carefully performed, work, but the rarity of these exceptions in diphtheria immunisation only confirms the value of the method.

SECTION III. (a).

Venereal Diseases Scheme.

The Annual Return for 1930 rendered to the Ministry of Health will be found in Appendix I.

TABLE I.
PATIENTS DEALT WITH DURING 1930.

	Venereal.			Non-venereal.			Total, all cases.		Grand Total.
	M.	F.	Total	M.	F.	Total	M.	F.	
Remaining on 1st January from previous years ..	628	157	785	65	23	88	693	180	873
New cases (includ- ing returned defaulters prior to 1930)	1,026	240	1,266	779	296	1,075	1,805	536	2,341
Total	1,654	397	2,051	844	319	1,163	2,498	716	3,214

TABLE II.
PATIENTS DISPOSED OF DURING 1930.

	Venereal.			Non-venereal.			Total, all cases.		Grand Total.
	M.	F.	Total	M.	F.	Total	M.	F.	
Cured	336	30	366	662	276	938	998	306	1304
Defaulted before completing treat- ment	211	100	311	..	..	..	211	100	311
Defaulted before completing tests for cure	128	20	148	..	..	..	128	20	148
Transferred	238	36	274	42	3	45	280	39	319
Total	913	186	1,099	704	279	983	1,617	465	2,082

TABLE III.

PATIENTS REMAINING ON 31ST DECEMBER, 1930.

Venereal.			Non-venereal.			Total, all cases.		Grand Total.
M.	F.	Total.	M.	F.	Total.	M.	F.	
741	211	952	140	40	180	881	251	1,132

The Clinic had, upon the last day of 1930, been in existence as an *ad hoc* establishment since 1st April, 1928. During these two and a half years, 5,489 patients have been treated. These are classified for every year, by sex and disease, in the following manner:—

TABLE IV.

TOTAL CASES (NEW AND OLD).

	1928.			1929.			1930.			Total. 1928-30.		Grand Total.
	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	
Syphilis ..	220	46	266	326	87	413	336	116	452	882	249	1,131
Chancroid	15	..	15	20	..	20	20	..	20	55	..	55
Gonorrhœa	526	73	599	671	88	759	670	124	794	1,867	285	2,152
Total V.D.	761	119	880	1,017	175	1,192	1,026	240	1,266	2,804	534	3,338
Not V.D. .	279	61	340	516	220	736	779	296	1,075	1,574	577	2,151
Total, All cases .	1,040	180	1,220	1,533	395	1,928	1,805	536	2,341	4,378	1,111	5,489

From the above it will be seen that, year by year, there has been recorded a steady increase in the number of new patients of both sexes under each disease category.

The ratio between men and women patients generally is as 4 is to 1 ; while the ratio in respect of venereal disease is as 5 is to 1.

TABLE V.
NEW PATIENTS (V.D.), 1930.

Sex.	Disease.	Duration.		Totals.		
		Over one year.	Under one year.			
Males ..	Syphilis	134	192	326	1,002	1,233*
	Chancroid .....	..	20	20		
	Gonorrhœa	81	575	656		
	Total Males	215	787	1,002		
Females {	Syphilis.....	58	53	111	231	
	Chancroid .....	..	..	..
	Gonorrhœa	21	99	120		
	Total Females	79	152	231		
Grand Total (M. & F.)		294	939	1,233*		

* Exclusive of 33 patients who defaulted in previous years and returned in 1930 with same affection.

As will be seen from Table V, the number of female new patients in 1930 suffering from venereal disease was small compared to males. This is due largely to the fact that among women neither syphilis nor gonorrhœa is so apt to attract the patient's attention. With respect to syphilis it has been shown that only exceptionally is the initial lesion diagnosed in women. In the majority of cases the chancre is not to be found on the

external genitals but on the cervix, in the cervical canal, or upon the endometrium—in other words, it is concealed.

In cases of female gonorrhœa, the usual site of inoculation being the cervix more often than the urethra, the disease is less likely to give rise to subjective symptoms. Objectively it may escape recognition also, on account of the fact that a leucorrhœa of some degree is almost a normal condition in the modern woman, whose ignorance of vaginal hygiene is only equalled by her failure to realise the necessity for it. This is by no means confined to the less-enlightened grades of society, but it is true of women who would never dream of omitting the rite of the tooth-brush, at morning, at night, and after every meal.

Again, in the later stages of syphilis, the disease in women is of a much milder character than it is in men. There is a greater tendency on the part of the female—and especially during the reproductive era—to show a negative result to the Wasserman test.

These things all conspire to prevent early diagnosis and treatment in women. This becomes all the more important when it is realised that, contrary to the general opinion even among medical people, the incidence of syphilis is higher in the female sex than in the male. We are compelled by experience and by the irresistible force of logic to conclude that the woman is the natural host or “carrier” of the parasite of syphilis. It does far less harm to her than to the man; and from this

fact she has become the great reservoir of infection. From her the disease is spread to the male sex; from her it is transferred to the next generation.

All the foregoing point clearly to the pressing need for female education in social and sexual hygiene; for the adoption of the routine serological test in general practice; and for the realisation of the fact that when syphilis is diagnosed in the female, cure can only be attained after more prolonged and more intense treatment than is required for the male. Furthermore, once a woman has been found to have syphilis—no matter what treatment she may have had; no matter how many years may have elapsed since the date of her acquiring the disease—at every pregnancy she should undergo treatment right up to the time of her confinement. In this way alone can healthy children be secured.

As in the previous Report, a percentage analysis of the occupations of new patients during the year is presented, and, as before, the striking feature is the number of men attending who are engaged in transport and communication work. In this connection there are presented two problems: (1) The difficulty which these men experience in obtaining regular treatment; and (2) the influence their occupation has, not only in causing them to acquire infection, but also in spreading the disease when once acquired.

TABLE VI.

Occupational Group.	Percentage.			
	New Patients.		General Population.	
	M.	F.	M.	F.
Agricultural	0.7	..	2.7	40.3
Makers of bricks, pottery, glass	0.3	..	0.2	0.2
Metal Workers (not electro-plate)	5.6	0.45	12.1	1.0
Workers in precious metals and electro-plate	0.2	..	0	..
Electricians, &c.	2.55	..	1.2	0.4
Makers of watches, clocks, scientific instruments	0.3	..	0.1	..
Workers in skins and leather	0.4	..	0.2	0.3
Textile workers	1.4	3.12	10.1	38.0
Makers of textiles and articles of dress ..	2.0	4.98	1.8	9.5
Workers in food, drink, tobacco	3.95	0.45	1.2	2.5
Workers in wood and furniture	1.8	..	3.4	0.4
Workers in chemical processes	0.2	..	0.4	0.4
Workers in paper, printing, &c.	3.05	0.45	0.3	1.9
Painters and decorators	1.2	..	1.3	..
Workers in building materials	3.65	..	3.0	..
Makers of musical instruments	0.1	..	0	..
Makers of vehicles .....	..	..	..	..
Makers of ships .....	..	..	0.3	..
Other workers	0.5	..	7.6	1.3
Miners	1.8	..	6.1	..
Labourers	7.0	..	6.4	..
Workers in Gas, Water, Electricity	1.2	..	0.4	..
Transport and Communication :—				
(a) Rail	2.8	..	2.2	} 1.1
(b) Road	9.5	..	4.4	
(c) Water	16.2	..	3.2	
(d) Dock labourers	1.4	..	1.5	
Commercial and Financial	3.95	..	7.8	8.7
Shop Assistants	3.1	2.26	2.4	..
Public Administration and Defence	0.9	..	1.7	0.7
Professional occupations (except clerical) ..	0.6	..	1.7	4.5
Clerks and Draughtsmen	4.6	0.9	4.5	..
Warehousemen, Storekeepers, Packers	3.2	0.45	2.7	2.9
Entertainment and Sport	2.4	0.9	0.5	0.4
Domestic Servants	0.4	7.7	} 2.1	18.2
Waiters and Waitresses	0.2	0.9		
Barmen and Barmaids	0.8	0.9		
Other workers (skilled)	6.5	2.65	..	1.3
Housewives .....	..	58.42	..	12.2
Children	1.9	14.05	70.4	69.2
No occupation	3.65	1.81	10.2	..

Table VII. shows the new patients attending during 1930, analysed according to age and marital condition. This again brings out the fact that a single man is most

liable to acquire venereal disease between 20 and 30 years of age; and that married men between the ages of 30 and 45 are more likely to acquire syphilis or gonorrhœa than are single men in the same age-group. This fact

TABLE VII.

	Marital State.	Males.						Females.						Totals.
		Under 20.	20 to 30.	30 to 45.	45 to 65.	Over 65.	Total (M.).	Under 20.	20 to 30.	30 to 45.	45 to 65.	Over 65.	Total (F.).	
Venereal.	S.	53	408	125	24	..	610	47	33	9	..	..	89	1,266
	M.	..	116	212	59	1	388	1	73	64	7	..	145	
	W.	..	..	9	18	1	28	..	..	4	2	..	6	
	Total.	53	524	346	101	2	1,026	48	106	77	9	..	240	2,341
Not Venereal.	S.	86	277	83	19	1	466	62	45	12	..	..	119	1,075
	M.	..	53	164	65	3	285	2	82	77	8	..	169	
	W.	..	6	9	8	5	28	..	..	6	2	..	8	
	Total.	86	336	256	92	9	779	64	127	95	10	..	296	
Total V. & N.V.		139	860	602	193	11		112	233	172	19	..		Grand Total, 2,341
		1,805.						536.						

was commented upon in my previous report. The Table again shows that for single women the danger age is under 20 years; and also that most of the female patients are married women between the ages of 20 and 45. The vast majority of these women have been infected by

their husbands. It would seem clear from this that the condition of affairs as shown is likely to continue until such time as the women of England realise their danger, and take legislative means of ensuring that infected persons shall be compelled to undergo treatment till cured. Only when that is done will a woman be able to succeed in an action for legal cruelty when she has been infected by her husband.

In Table VIII. are compared the new cases for 1930 with those for the previous five years and with the average per year during that period.

TABLE VIII.

Year.	Total V.D.	Syphilis.			Chancroid.			Gonorrhœa.			Not V.D.			Grand Total.
		M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	
1930.....	1,266	336	116	452	20	..	20	670	124	794	779	296	1,075	2,341
1929.....	1,192	326	87	413	20	..	20	671	88	759	516	220	736	1,928
1928.....	880	220	46	266	15	..	15	526	73	599	279	61	340	1,220
1927.....	345	87	45	132	..	..	..	193	20	213	86	47	133	478
1926.....	309	90	38	118	..	..	..	166	25	191	107	43	150	469
1925.....	375	106	35	141	..	..	..	203	31	234	78	40	118	493
Average for five years 1925-1929.	620.2	165.8	50.2	216	7	..	7	351.8	47.4	399.2	213.2	82.2	295.4	917.6

From this it will be seen that there has been an annual increase in new cases since 1927. The male figures for syphilis and gonorrhœa since 1928—when

the Clinic was opened—remain fairly steady, but the female figures for these diseases have increased considerably each year.

The residential areas of new patients attending are shown below :—

TABLE IX.

Residential Area.	1930.		1929.		1928.		1928-1930. (3 years.)	
	Cases	Per cent.	Cases	Per cent.	Cases	Per cent.	Cases	Per cent.
SALFORD	1,103	47·1	956	49·8	604	49·5	2,663	48·8
Manchester	612	26·1	511	26·3	263	21·5	1,386	24·6
Lancashire	298	12·8	193	10·2	115	9·5	606	10·9
Cheshire	68	2·9	50	2·5	42	3·5	160	2·9
Other areas	81	3·4	37	1·6	58	4·7	176	3·2
Seamen (British).....	98	4·3	115	6·1	85	6·9	298	5·8
Seamen (Foreign)	81	3·4	66	3·5	53	4·4	200	3·8
	2,341	100	1,928	100	1,220	100	5,489	100

Again it will be seen that more than half the number of patients seen reside in areas other than Salford.

The stages of syphilis in which new cases presented themselves during 1930 are set out in the following table :—

TABLE X.

Stage of Disease.	Males.	Females.	Total.
EARLY—			
Sero-negative primary	75	1	76
Sero-positive primary	52	8	60
Early secondary	30	10	40
Late secondary	17	24	41
Total early syphilis	174	43	217
LATE—			
Endosyphilis	87	30	117
Tertiary	17	3	20
Neurosyphilis	23	2	25
Congenital	25	33	58
Total late syphilis	152	68	220
Grand Total	326	111	437

It is satisfactory to observe from the above Table that 36 per cent of the cases of early syphilis were in the sero-negative primary stage of the disease. The figures under the sex-headings show that men attend for treatment earlier than do women. This is due, in great measure, to the fact that the early stages of syphilis are much milder in the female. Of the cases of late syphilis, the majority were in the asymptomatic stage—Endosyphilis—clinical signs being absent but the blood-Wassermann positive. This may be attributed to two things: (1) The performance of a routine Wassermann; and (2) the effect of such slight propaganda work as is

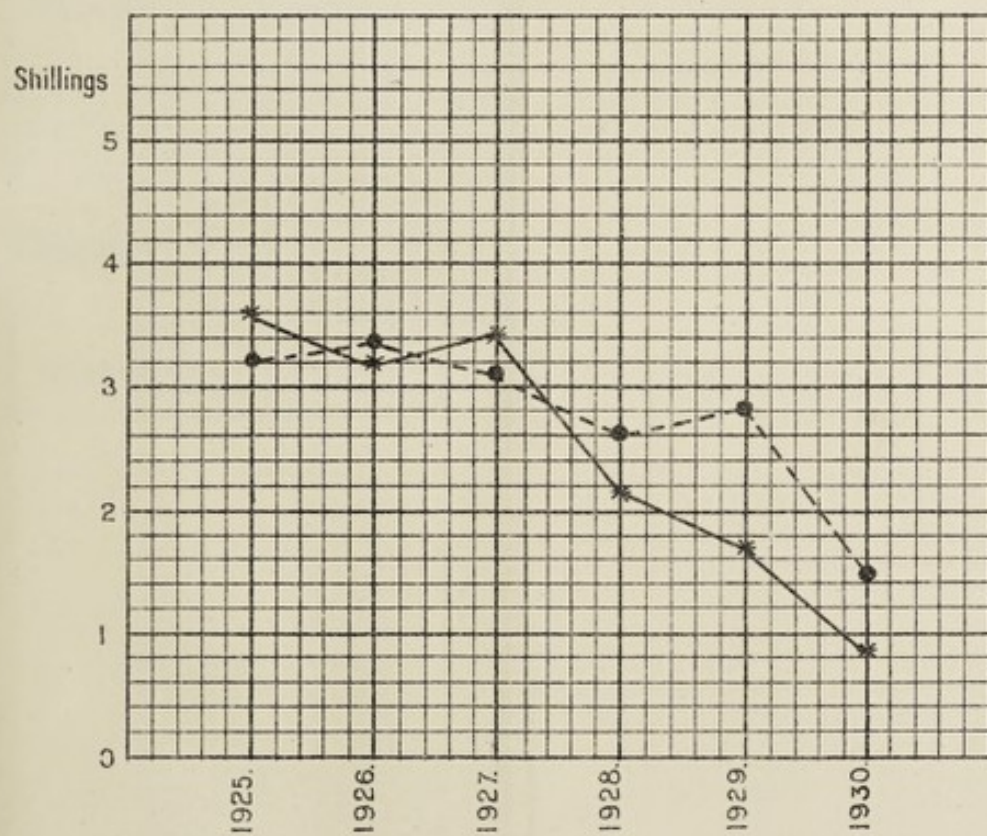




CHART N^o.

Salford Royal Hospital.

MUNICIPAL CLINIC.

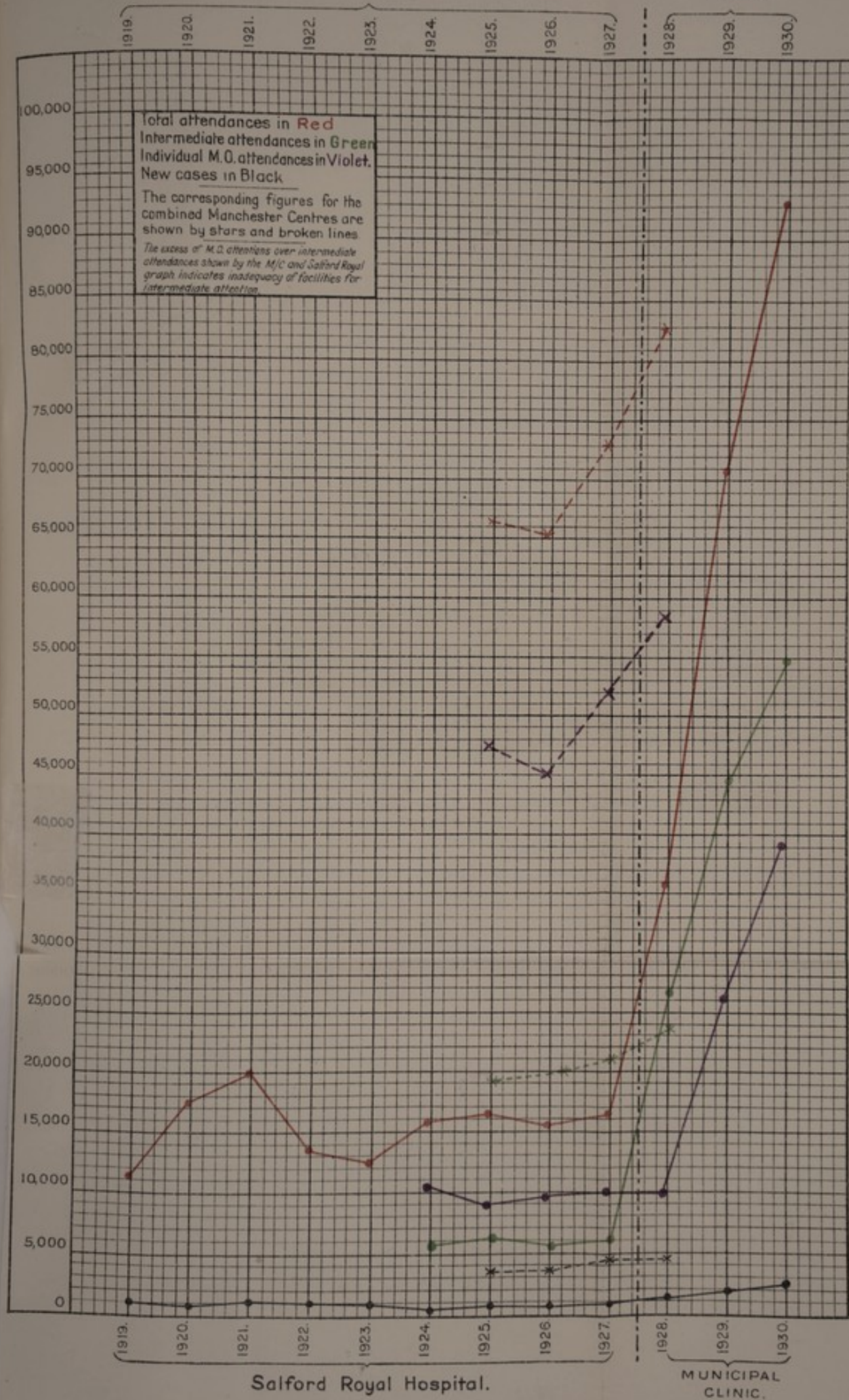
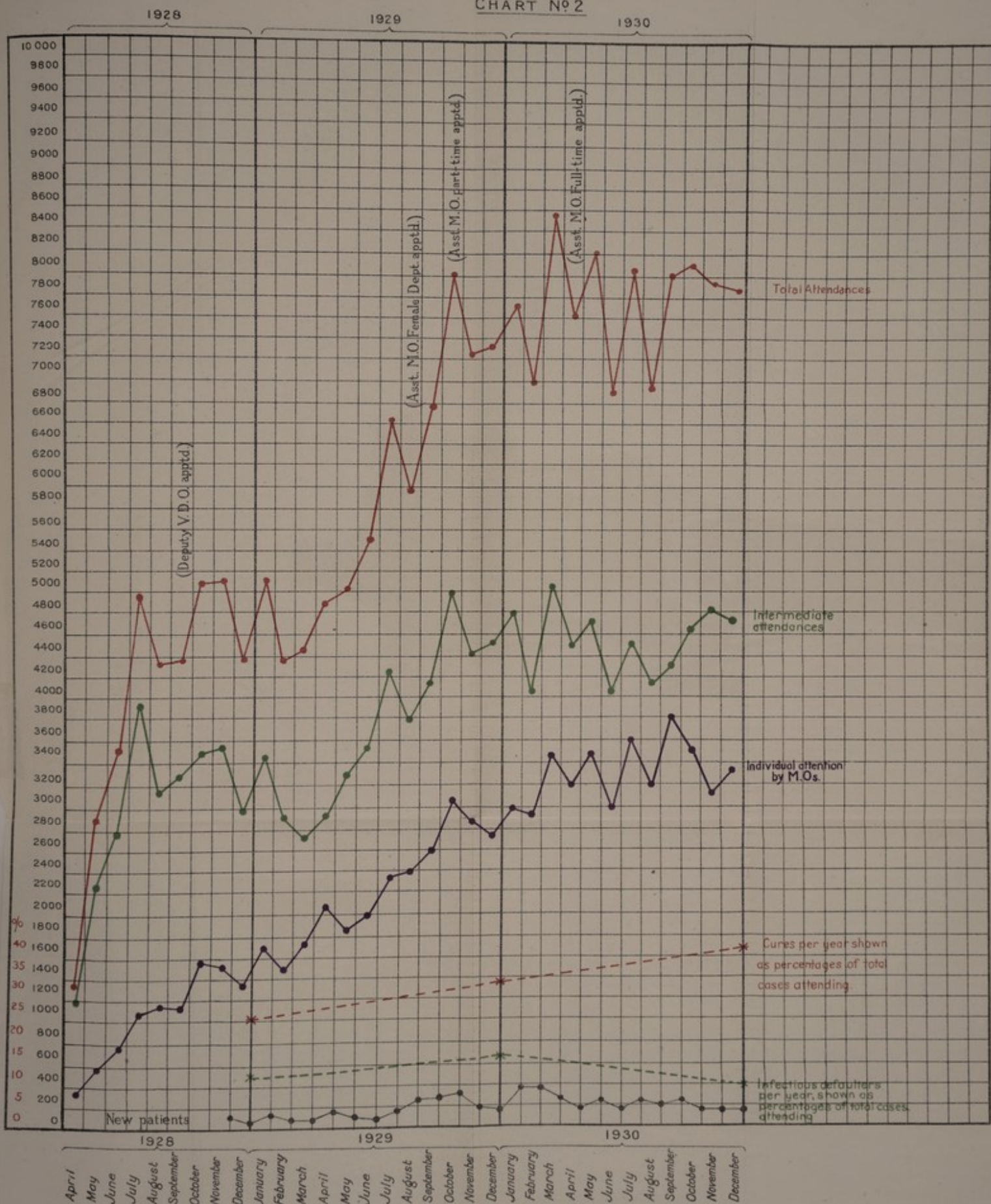
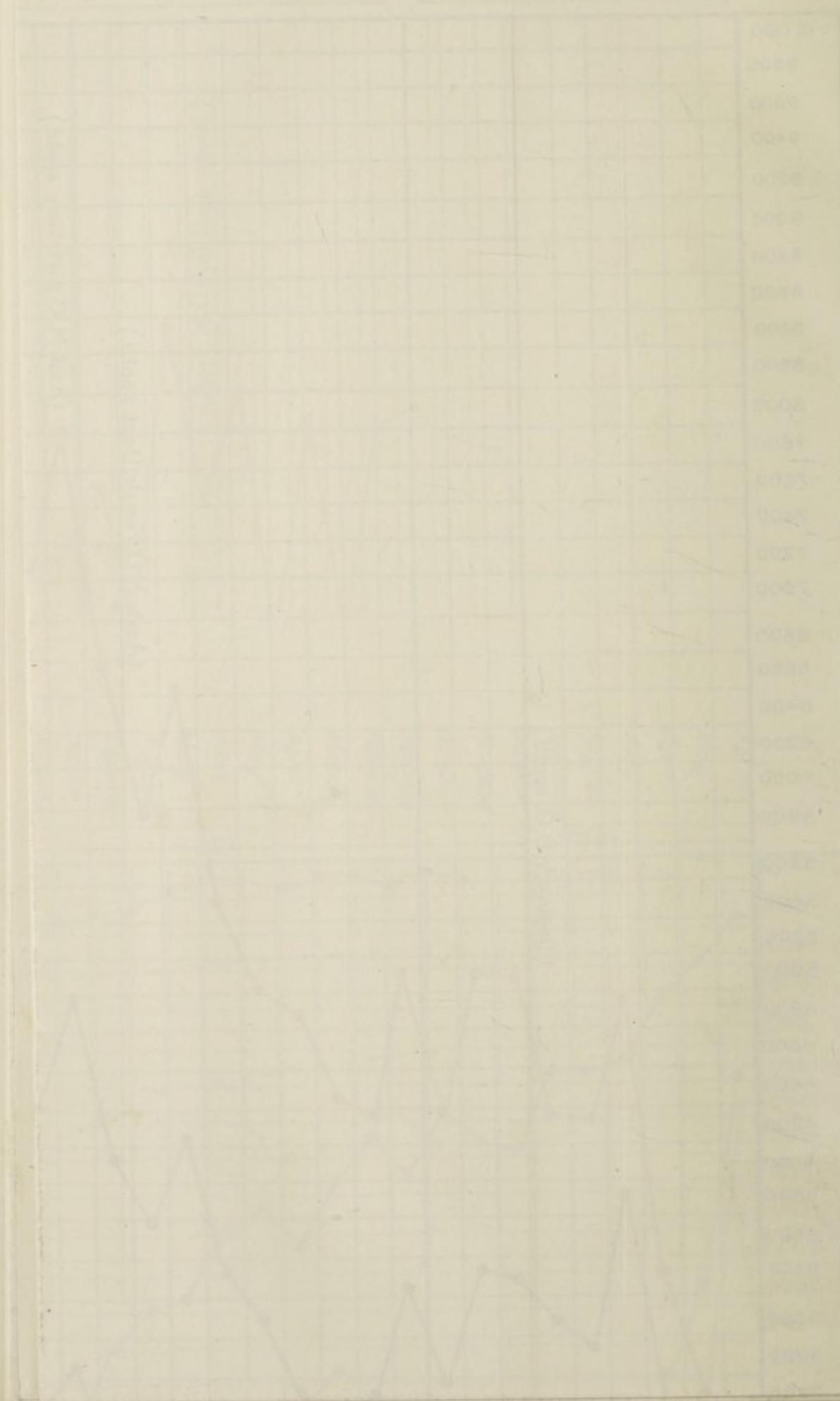


CHART No 2





carried out. Were this latter of an organised and sustained character, then I feel sure that more endosyphilitics would be discovered. Some 50 per cent of new syphilis patients were suffering from the disease in its early and communicable stages; and of the total number, 13 per cent were congenital infections.

Attendances.

Chart No. 1 shows graphically—year by year—the new cases handled, the number dealt with individually by Medical Officers, the intermediate, and the total attendances registered since the V.D. Scheme for Salford was established.

The cost per attendance in respect of Manchester patients treated under the Salford scheme, and of Salford patients treated under the Manchester scheme, is represented below. The cost in Salford is represented by the continuous line.

Chart No. 2 illustrates the attendances under the different categories, month by month, since the Clinic opened. It also shows the annual percentage cure-rate and infectious-defaulter rate. The former is steadily rising, while the latter is falling—a condition of affairs which is very satisfactory, especially since there are more cases being cured in a year than there are defaulters.

In Chart No. 3 is shown graphically the progress in the Female Department at the Municipal Clinic.

TABLE XI.

AVERAGE NUMBER OF ATTENDANCES PER PATIENT.

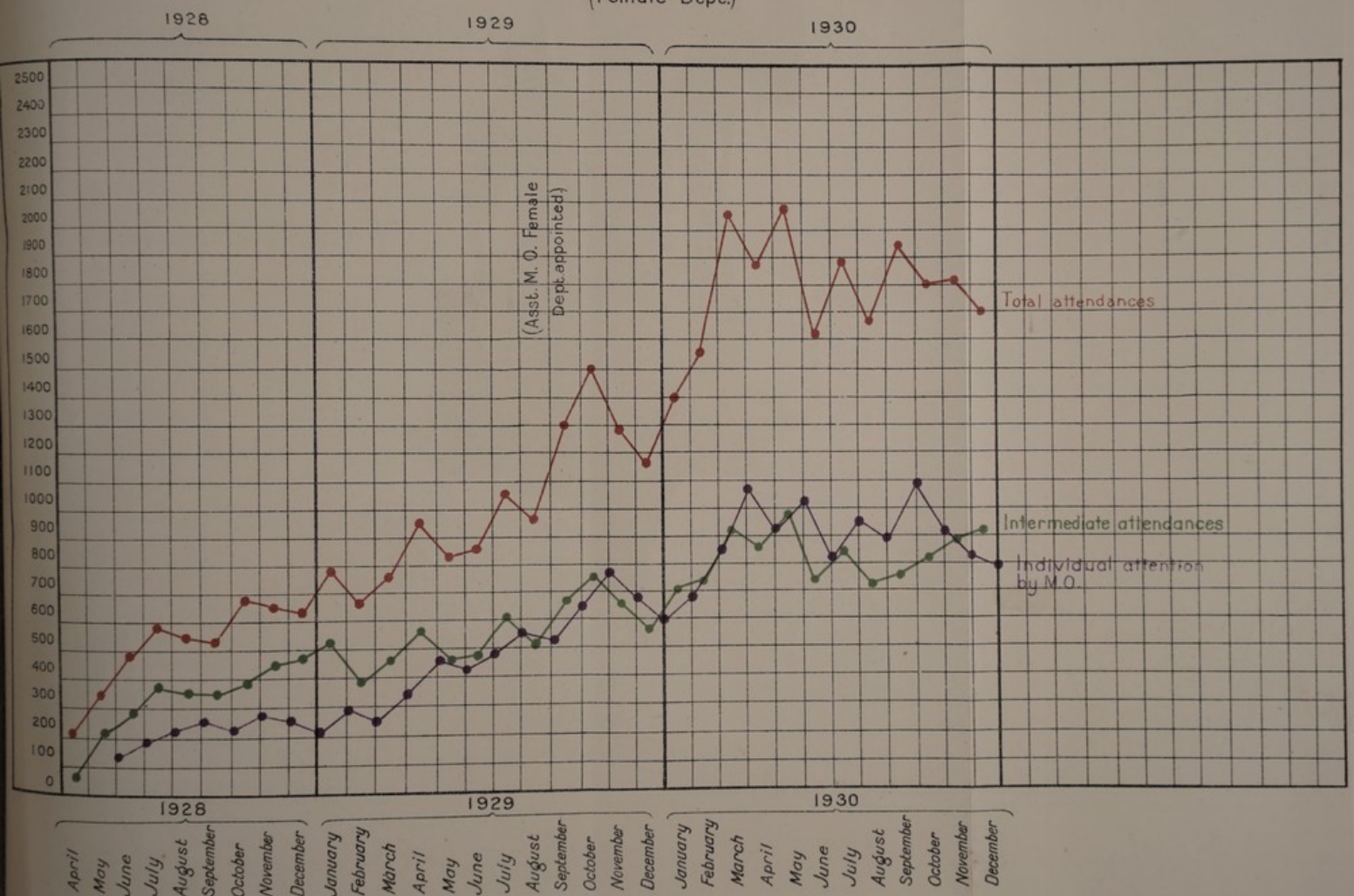
(Calculated as total attendances divided by the number of new cases.)

Year.	V.D. only.	All cases.
1928.....	42	30
1929.....	57	36
1930.....	68	39
Average of 7 other large Clinics	24	20

Although this is very satisfactory, there are still aspects of the question of attendance to which attention must be directed.

From 1st April, 1928, to 31st December, 1930, 78 children suffering from syphilis have been taken on the books. Of these, 24, or 30·7 per cent, have become defaulters. They are still in an infectious condition, and the disease from which they suffer is doing them grave physical harm. These patients are doomed to a life of needless suffering; many of them will become permanently blind; and practically all will die at an unnecessarily early age. While they live, they will be a financial burden to the healthy community, and several of them will have to be kept by the tax-payer in Blind Asylums and in Mental Hospitals. By being treated, the majority of these patients could be cured, and all could be rendered non-infectious. These children are

CHART N^o 3.
(Female Dept.)



not receiving a "square deal," and the fault lies with the parents or guardians, who definitely refuse to allow treatment. Take the instance of a patient who, suffering from syphilis of the lungs, is drawing a war pension for alleged pulmonary tuberculosis. His little girl is suffering from congenital syphilis, which will eventually lead to blindness. This father, fearful of losing his pension—a fear which is quite groundless—refuses to be treated himself and will not allow his child to attend. The attempt to institute legal proceedings under the Children Act of 1908 against this parent fails because the Ministry of Health state that this cannot be done, as it would be a violation of the secrecy implied under the V.D. Act. Meanwhile, this particular child, and many like her, must be permanently disabled. The whole situation is an iniquitous one; and it apparently cannot be righted until such time as some Local Authority develops the courage to prosecute such parents or guardians, and thus carry out the spirit of both these Acts.

Again there is urgent need in the Female Department for a Lady Almoner who would follow up such cases and try persuasion. At the present time the parent referred to can be prosecuted for refusing to send his child to school, from which, on account of her disease, she is incapable of deriving any great benefit. When she does go to school, the School Medical Officer discovers her condition, refers her to the Clinic for treatment, and this the parent refuses to allow. The law can compel him to have the child treated for all sorts of trivial things; it can force him to do, or to refrain from doing, many others; but because of the transference of his

disease to his child, it is incapable of saving that child from the father's knavery and folly.

There are small girls of from three years of age upwards who are attending this Clinic suffering from gonorrhœa innocently acquired by means of infected towels and clothing. It is futile to treat these children so long as the parents themselves refuse examination and treatment, because the children are being continually re-infected. By taking the little patients into Hospital they soon become well; but immediately they return home, the disease is initiated afresh; and so the work has to be done all over again.

Again, as in previous reports, it must be emphasised most strongly that this Scheme is incomplete until there is introduced an element of compulsion for the foolish. Something much more is also needed than sporadic attempts at propaganda once a year—by showing, during a "Health Week," a sensational film relative to venereal disease. That is only so much pitiful camouflage, the effect of which soon wears off. It is merely a sop to the communal conscience which periodically wakes up and realises that propaganda is really an essential part of the Scheme—but promptly falls asleep again. And, while it is complacently slumbering, venereal disease is, like a thief in the night, plundering the storehouse of the public health. It is absurd that in the combined areas of Salford and Manchester there is no branch of the British Social Hygiene Council—the proper organisation for carrying on an adequate propaganda programme.

The following are the results of letters sent to defaulters during 1930 :—

	Number.	Percentage.
Letters sent.	1,133	100
RESULTS :—		
(1) No reply	473	42·4
(2) Wrong address	217	19·1
(3) “ Under own doctor ”	4	0·3
(4) Good cause for absence	12	0·9
(5) Returned and attending	284	33·6
(6) Returned for a period only .....	..	..
(7) Returned and transferred	9	0·7
(8) Returned and discharged	34	3·0
Total	1,133	100

TABLE XII.

PATHOLOGICAL EXAMINATIONS.

		Syphilis.			Gonorrhœa.			Total S. & G.
		Trep. Pallid.	Wass.	Total (S).	Gono- cocci.	Pus indices.	Total (G).	
1928..	Clinic	30	..	483	1,241	2,020	3,261	3,744
	Lab.	..	453		..	..	..
1929..	Clinic	81	..	1,798	3,979	2,651	6,630	8,428
	Lab.	..	1,717		..	..	..
1930..	Clinic	152	..	3,394	5,599	2,268	7,867	11,261
	Lab.	..	3,242		..	..	..
Totals		263	5,412		10,819	6,939		
		5,675			17,758			
		23,433						

The Wassermann tests are carried out by Dr. Crawford at the Salford Public Health Laboratory. It would be a great advantage if, in addition to the Wassermann, there could also be done the Kahn test. There is quite enough work at the Municipal Clinic to occupy a V.D. whole-time pathologist; and were such an appointment made, a great deal of valuable research could be carried out. Owing to other non-V.D. work, it is impossible for the Public Health Laboratory to perform the Wassermann tests more often than once weekly. This greatly handicaps the clinical side. For the same reason, various examinations of the cerebro-spinal fluid cannot be done, nor can complement-fixation tests be carried out in cases of gonorrhœa. A special pathologist attached to the Clinic would be able to make all the vaccines, which at present have to be bought elsewhere. Since the Clinic opened, there have been given some 10,133 vaccine injections.

Examinations for *treponema pallidum* and for the gonococcus, as well as urinary pus-counts, are carried out, not by the Laboratory, but by the Clinic staff. Since 1928 that staff have done 18,021 such examinations. The Senior Nurses and Orderlies have become highly competent in the taking, staining, and examination of pathological specimens.

The Wassermann reports from the Laboratory have been uniformly accurate, and have been parallel with the clinical findings. The practice of doing a routine Wassermann on every patient has resulted in the discovery of nearly 8 per cent of hitherto unsuspected syphilis. Our experience here corroborates the findings of Ross of

Liverpool that over 50 per cent of patients suffering from fibrous stricture of the urethra give a positive Wassermann test.

The provocative procedure is utilised very frequently in the Municipal Clinic. An intravenous injection of Stabilarisan is given, after the patient has taken large doses of iodides for at least a week. A Wassermann test is then done every 24 hours after the injection, for at least seven—and if possible for ten—days, and again on the twelfth and fourteenth days. While there is great reluctance upon the part of patients to submit to cerebro-spinal fluid examination, there is practically no opposition to provocative blood-tests; and it is felt that unless these latter are carried out many cases of uncured syphilis would remain undiscovered.

There are three main additional pathological examinations, then, which it is necessary to carry out as a routine for the completion of the work—the Kahn test, a complement—fixation for gonorrhœa, and cultural examination of suspect material from gonorrhœal patients.

This would mean the appointment of an additional pathologist.

In-Patients.

There are six beds for male patients at the Clinic, and arrangements are being made for the provision of eight beds for women and children at Hope Hospital early in 1931. The last is a most pressing need.

TABLE XIII.
IN-PATIENT DAYS.

		Venereal.				Not V.D.	Total, all Cases.
		Syphilis.	Chancroid.	Gonorrhœa	Total V.D.		
1928.	Males	111	38	262	411	40	451
	Females	16	..	61	77	..	77
	Total (1) ..	127	38	323	488	40	528
1929.	Males	505	52	729	1,286	218	1,504
	Females	8	..	36	44	..	44
	Total (2) ..	513	52	765	1,330	218	1,548
1930.	Males	358	119	633	1,110	296	1,406
	Females	78	..	..	78	69	147
	Total (3) ..	436	119	633	1,188	365	1,553
Total (1, 2 and 3)		1,076	209	1,721		623	
Total V.D.		3,006					
Grand Total		3,629					

It will be seen that there were 1,553 in-patient days in 1930. The actual number of patients admitted in that year was 144, so that the average number of days spent in hospital per patient was 10·7.

The work done in the operating theatre under general anæsthesia is shown below :—

Year.	No. of Operations.
1928	15
1929	76
1930	77
Total	168

Treatment.

Several modifications have been brought about in the routine schemes for the treatment of both syphilis and gonorrhœa. The present routines are set forth in Appendix II.

Scientific and Original Work.

The Municipal Clinic has been considered not merely as a place where certain chemical remedial agents are administered to patients suffering from venereal diseases, but rather as an institution where these diseases may be thoroughly studied and improvements brought about in treatment. Simply to give treatment in a rule-of-thumb manner is a waste of money, time, and brains, since 90 per cent of the actual therapy can be given just as efficiently by a Nurse or an Orderly. Although the medical staff may not be paid to do any research, nevertheless, it pays the Local Authority for them to do so.

The Municipal Clinic is the only one in Great Britain where the remedial agents are given, not concurrently, but in alternating series. The present routine for the treatment of syphilis has been evolved as the result of experience and study extending from 1917. An investigation of 365 cases of syphilis treated from 1917 to 1921 under the concurrent method showed very clearly that there were many inherent and insuperable disadvantages attached to that procedure. From 1922 to 1926, at a Treatment Centre other than the present, 308 cases of syphilis were treated according to the alternating principle. This was shown to be much the better. Cure was more quickly obtained, there was less

tendency to default, and complications due to therapy practically disappeared. From 1928 to 1930, at the Municipal Clinic, 1,103 cases of syphilis were treated by the alternating method, and gradually the present routine (Appendix II.) has been evolved.

The advantages of the Salford method may be best illustrated by comparing it with the schemes of treatment as carried out elsewhere.

Take a case of sero-negative primary syphilis: if such a patient goes to a certain Northern Clinic, the Course of treatment he will be prescribed is one which lasts for 103 weeks. During that time he will receive 10.35 grams of arsenobenzene compound and a bismuth preparation containing 28 grams of the metal. That Course—like the other two about to be described—is designed to secure a cure-rate of 100 per cent. As the drugs are given concurrently, the patient must—if he is to avoid signs of poisoning—be given several rest-intervals. In this Northern Course, 39 weeks out of the 103 are taken up by such rests, during which there is no treatment. This means that when therapy is in abeyance, the parasite of the disease is allowed a free hand to do what damage it can.

In a certain Southern Clinic, the same patient would be put on a concurrent Course lasting for 63 weeks, during which time he would receive 20.25 grams of arsenobenzene compound and a bismuth preparation containing 9.6 grams of the metal. There are 21 weeks during the 63 of the Course which are taken up by rest-periods.

If the same patient came to the Municipal Clinic, his Course would consist of 26 weeks of treatment, during which no rest-intervals occur, the drugs being given in alternating series. He would receive 10·35 grams of an arsenobenzene compound and a bismuth preparation containing 1·28 grams of the metal (*vide* Appendix II., Course No. I.).

These Courses may be set out as follows :—

Course.	Duration (weeks)	Grams.		Therapeutic Units.*	Efficiency Index.†
		Ab.C.	Bi.		
Northern.....	103	10·65	28·0	64·25	62
Southern	63	20·25	9·6	29·5	79
SALFORD	26	10·35	1·28	24	92

From the above it will be evident that although each course attains a cure-rate of 100 per cent, that of Salford is more economical of time and material, as well as being of a much higher efficiency index.

The figures in the following Table indicate the advantages of the Salford Course over the other two :—

Course.	Salford Course shows a saving of—				Net advantage of Salford Course over the others (calculated as the difference between Efficiency Indices.)
	Time (weeks).	Grams.		Therapeutic Units.	
		Ab.C.	Bi.		
Northern.....	77	0·3	26·72	40·25	30
Southern	37	9·9	8·32	25·50	13

* †.—An explanation of these terms will be found in: (1) "Therapeutic Evaluation in the Treatment of Syphilis," *British Medical Journal*, 21st February, 1931; (2) "Adequate Treatment of Syphilis," *Lancet*, 23rd May, 1931; and (1) "The Adequate Treatment of Syphilis and a New Method for Evaluating Therapy," *American Journal of Syphilis*, April, 1931.

Those who would hold that research work carried out by the staff is unproductive and is not one of the purposes for which they were appointed and for which they are paid, quite clearly fail to appreciate that it is only by such work that the present saving in time and material is being effected. It must be realised that scientific research has invariably an ultimate utilitarian effect. In the Municipal Clinic, where there is abundant clinical material and a whole-time staff, it would be reprehensible if that material and staff were not being utilised to further the advancement of science.

The fact that in this large Clinic the alternating principle of treatment is adopted is of some real importance. As has already been said, it is the only one in Great Britain where this method is exclusively adopted. And for that reason it is somewhat unfortunate that the powers that be did not invite the Municipal Clinic to submit its records to the investigators who, under the League of Nations organisation, are analysing the case-records of patients treated by different methods in Clinics all over the world. I have been working on this alternating principle since 1922, during which time nearly 1,500 cases have been treated; and although patients handled since 1928—1,103 in all—have not all been observed for a satisfactorily long period, many of them have, and most of the 308 patients so treated at another Clinic. These records, then, would have been of not a little value.

Realising this, a request was sent to the Medical Research Council asking for a grant to enable an analysis

of these records to be carried out, as was done in the case of the Treatment Centre at St. Thomas's Hospital in London. After some correspondence, the Medical Research Council decided that it was unable to give any grant at the time, although it was prepared to consider the matter after the report of the League of Nations' investigation was published. I pointed out that since our records were not asked for by the League of Nations, that was all the more reason why the extraordinarily good results obtained by our methods should be published without delay.

Without any financial aid, I therefore determined to continue with my analysis, and I hope, in some twelve months' time, to publish that in full. Under whose auspices this will take place the future must decide; but it is suggested that it is not outside the province of the Public Health Committee of Salford to undertake this publication, if the Medical Research Council refuse to do so.

Dr. F. W. F. Purcell has investigated a series of cases of male gonorrhœa treated by a modification of Pelonze's method. He is to present a paper upon this subject to the *Medical Society for the Study of Venereal Disease*, in London, early in 1931.

Dr. R. Marinkovitch—in collaboration with Dr. Florence M. Blades—is carrying out an investigation into the incidence, aetiology, and treatment of jaundice occurring among patients attending at the Municipal Clinic. This paper will, it is hoped, be read before the same Society next year.

Other work emanating from the Clinic during 1930 consisted of :—

- (1) "The Influence of the Sex Factor in Modifying the Course of Syphilis," read before the Medical Society for the Study of Venereal Disease, London, January, 1931. (*British Journal of Venereal Diseases*, September, 1931.)
- (2) "Sexual Education." Lecture delivered to the Women Citizens' Association, Town Hall, Salford.
- (3) "Therapeutic Evaluation in the Treatment of Syphilis." (*British Medical Journal*, February 21st, 1931.)
- (4) "Adequate Treatment of Syphilis." (*The Lancet*, May 23rd, 1931.)
- (5) "The Adequate Treatment of Syphilis and a New Method of Evaluating Therapy." (*American Journal of Syphilis*, XV., 155, 1931.)

General.

It is hoped that early in 1931 there will be available a seven-bedded Ward in Hope Hospital for the treatment of female patients. It is proposed to use this Ward largely for the giving of inoculation malarial treatment. When that comes about, there will be beds available at the Clinic for men whom it is desired to treat upon the same lines. The object of doing this is, so to speak, to place a malarial barrage between the Clinic patient with late syphilis and with early neuro-syphilis, and the wards of a mental hospital. By this means I am convinced that we can prevent many cases of general

paralysis and tabes dorsalis occurring, and that we can cure many early cases without inflicting upon the patients the stigma of having once been an inmate of a mental hospital.

This is, of course, only a beginning. Much more is needed. It is unsatisfactory to treat malarial cases in the Clinic Wards because of an unnecessary element of risk due to lack of staff. I most earnestly press for two small wards at Hope Hospital—one male and one female—devoted to the malarial treatment of early neurosyphilis. It would appear that this cannot, under recent legislation, be evaded. In addition to these, we require, at the very least to begin with, an allocation of 10 male and 10 female beds at Hope Hospital for other cases of syphilis and gonorrhœa. On any one day in that Institution there can never be less than twenty patients suffering from these diseases or their sequelæ. It is not suggested that special accommodation should be added, but that such patients should be concentrated into two wards and placed under the care of the Venereal Diseases Officer. The only way in which a much-needed increase in size of the Female O.P. Department can be brought about is by removing the medical officers' room from the first to the second floor, where the present Wards are.

During the Winter of 1930/31, a great deal of post-graduate instruction was given. Two separate series of 15 lectures and demonstrations were given. At these, some fifty persons attended, most of whom wished for, and obtained, the certificate of the Ministry of Health,

the University Certificate, and the Certificate entitling the holder to free issues of arsenobenzene compounds.

For the amount of work, the number of staff is inadequate. If it so happens that the financial situation does not permit the engagement of more staff, the only relief to be found is in the complete transference of all the beds to Hope Hospital. Even then, more staff will be necessary; and when the financial aspect of the Scheme comes up for review, the requirements should be assessed, not on the year 1928—as obtains at present—but upon the busiest year since that date. I am convinced that, no matter what reorganisation of schemes may take place in neighbouring areas, the Municipal Clinic should deal with 3,000 cases a year, with approximately 120,000 total attendances. That is the provision which ought to be made.

Venereal Diseases—APPENDIX I.
RETURN RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT SALFORD DURING THE YEAR
ENDED 31ST DECEMBER, 1930.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than Venereal.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1. Number of cases which— (a) at the beginning of the year under report were under treatment or observation for..... (b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection.....	290	87	5	..	333	70	65	23	693	180
10	5	..	..	..	14	4	8	..	52	9
Total—Items 1 (a) and 1 (b)	300	92	5	..	347	74	73	23	725	189
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time with infections of: 1. less than one year's standing 2. more than one year's standing	192 134	53 58	20	..	575 81	99 21	771	296	1558 215	448 79
Total*—Items 1 (a), 1 (b) and 2 (a)...	626	203	25	..	1003	194	844	319	2498	716
2. (b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	29	1	3	..	38	1	8	..	78	2
3. Number of cases which ceased to attend— (a) before completing the first course of treatment for... (b) after one or more course, but before completion of treatment for..... (c) after completion of treatment, but before final tests as to cure of	46 41 21	20 33 2	2 .. ..	.. .. ..	122 .. 107	47 .. 18	.. .. ..	.. .. ..	170 41 128	67 33 20

*The total of Items 1 (a), 1 (b) and 2 (a) in the vertical columns headed Syphilis, Soft Chancre and Gonorrhoea should agree with the corresponding total of Items 3, 4, 5 and 6.

VENEREAL DISEASES—Continued.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than Venereal.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
4. Number of cases transferred to other Treatment Centres after treatment for	101	27	5	..	132	9	42	3	280	39
5. Number of cases discharged after completion of treatment and observation for.....	10	5	16	..	310	25	662	276	998	306
6. Number of cases which, at the end of the year under report, were under treatment or observation for	407	116	2	..	332	95	140	40	881	251
Total*—Items 3, 4, 5 and 6	626	203	25	..	1003	194	844	319	2498	716
7. Out-patient attendances— (a) For individual attention by the Medical Officer	14060	4957	88	..	11527	4473	2635	1256	28310	10686
(b) For intermediate treatment, e.g., irrigation, dressings, etc.	837	431	291	..	41214	9796	946	443	43288	10670
Total Attendances	14897	5388	379	..	52741	14269	3581	1699	71598	21356
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from	358	78	119	..	633	..	296	69	1406	147
										For
										Wassermann
										Reaction.
										Other
										Organisms.
										5599
										152
										..
										..
										3242
9. Examinations of Pathological material :— (a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre.... (b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory....										

*The total of Items 1 (a), 1 (b) and 2 (a) in the vertical columns headed Syphilis, Soft Chancre and Gonorrhoea should agree with the corresponding total of Items 3, 4, 5 and 6.

APPENDIX II.

STANDARD COURSES FOR THE TREATMENT OF SYPHILIS IN THE VENEREAL DISEASES TREATMENT CENTRE.

CITY OF SALFORD.

The amount of Ab.C. given in 1 week reckons as 1 Therapeutic Unit (T.U.)

" " " Bivatol " " 1 " " " 0.75 " "

$$\text{E.I. Efficiency Index} = \frac{\text{No. of T.U.'s in Course} \times 100}{\text{Duration of Course in weeks.}}$$

C.T.I. of Ab.C. = 16 \therefore T.U. value = 1.00

C.T.I. of Bivatol = 12 \therefore T.U. value = 0.75

EARLY SYPHILIS.

$$\text{Course No. 1. E.I.} = \frac{24 \times 100}{26} = 92$$

FIRST DEGREE SYPHILIS

(Sero-Negative Primary).

Treponema pallidum present.

Blood-Wassermann negative.

					Total.		
					Stab.	Bi-Metal.	T.U.
Stabilarsan	once weekly for 6 weeks	...	3.45		—		6
Bivatol	twice	„	4	„	..	0.64	3
Stabilarsan	once	„	6	„	..	3.45	6
Bivatol	twice	„	4	„	..	0.64	3
Stabilarsan	once	„	6	„	..	3.45	6
					—	—	—
Total			.....26	„	10.35	1.28 grammes.	24

Blood-Wassermann test 7 days after last injection.

If *positive*, treat as Endosyphilis and give Course No. V.

If *negative*, discontinue treatment and apply test for Cure.

CRITERIA OF CURE.—Give iodides for two weeks preceding each Wassermann test. A negative blood-Wassermann should be obtained every three months for one year after the cessation of treatment. Two years after the cessation of treatment, the blood and cerebro-spinal fluid (C.S.F.) must be negative after provocation.

If at any time during the observation period for cure, the blood becomes positive, treat as Endosyphilis and give Course No. V.

$$\text{Course No. II. E.I.} = \frac{31 \times 100}{34} = 91$$

SECOND DEGREE SYPHILIS
(Sero-Positive Primary).

Treponema pallidum present.

Blood-Wassermann positive.

					Total.		T.U.
					Stab.	Bi-Metal.	
Stabilarsan	once	weekly	for 8 weeks	..	4.65	—	8
Bivatol	twice	..	6	..	—	0.96	4.5
Stabilarsan	once	..	8	..	4.65	—	8
Bivatol	twice	..	6	..	—	0.96	4.5
Stabilarsan	once	..	6	..	3.45	—	6
Total					12.75	1.92 grammes.	31

Blood and C.S.F. Wassermann tests seven days after last injection.

If blood-Wassermann is *positive*, treat as Endosyphilis and give Course No. V.

If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII.

If both blood and C.S.F. are *negative*, discontinue treatment and apply tests for cure.

CRITERIA OF CURE.—As in Course No. I.

$$\text{Course No. III. E.I.} = \frac{36 \times 100}{38} = 92$$

THIRD DEGREE SYPHILIS

(Early Secondary).

Blood-Wassermann positive.

General Cutaneous eruption.

					Total.		
					Stab.	Bi-Metal.	T.U
Stabilarsan	once	weekly	for 8 weeks	..	4.65	—	8
Bivatol	twice	„	6	„ ..	—	0.96	4.5
Stabilarsan	once	„	8	„ ..	4.65	—	8
Bivatol	twice	„	6	„ ..	—	0.96	4.5
Stabilarsan	once	„	8	„ ..	4.65	—	8
Bivatol	twice	„	4	„ ..	—	0.64	3
			<hr/>		<hr/>	<hr/>	<hr/>
Total			38	„	13.95	2.56 grammes.	36

A blood and C.S.F. Wassermann is done one week after the last injection. If the blood is *positive*, treat as Endosyphilis, and give Course No. V. If it is *negative*, discontinue treatment.

If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII. If *negative*, discontinue treatment.

CRITERIA OF CURE.—As before.

$$\text{Course No. IV. E.I.} = \frac{43.5 \times 100}{48} = 90$$

FOURTH DEGREE SYPHILIS

(Late Secondary).

Blood-Wassermann positive.

Fading General cutaneous eruption.

C.S.F. Negative.

				Total.		T.U.
				Stab.	Bi-Metal.	
Stabilarsan once weekly for 10 weeks	..	5.85	—			10
Bivatol twice „ 6 „	..	—	0.96			4.5
(Iodides for last 2 weeks)						
Stabilarsan once weekly for 10 „	..	5.85	—			10
Bivatol twice „ 6 „	..	—	0.96			4.5
(Iodides for last 2 weeks)						
Stabilarsan once weekly for 10 „	..	5.85	—			10
Bivatol twice „ 6 „	..	—	0.96			4.5
<hr/>						
Total	48 „	17.55	2.88 grammes.			43.5

A blood and C.S.F. Wassermann is done one week after the last injection. If the blood is *positive*, and the C.S.F. *negative*, repeat the above course. If, however, the C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII.

If the blood and C.S.F. are both *negative*, discontinue treatment.

CRITERIA OF CURE.—As before.

LATE SYPHILIS.

$$\text{Course No. V. E.I.} = \frac{50 \times 100}{56} = 89$$

FIFTH DEGREE SYPHILIS.

(Endosyphilis).

Uncured cases without symptoms except a positive blood-Wassermann ; C.S.F. negative (if C.S.F. is positive, treat as Neurosyphilis and give Course No. VIII.).

				Total.		T.U.
				Stab.	Bi-Metal.	
Stabilarsan once weekly for 8 weeks	..	4.65	—			8
(Iodides for last 4 weeks)						
Bivatol twice weekly for 8 „	..	—	1.28			6
Stabilarsan once „ 8 „	..	4.65	—			8
Bivatol twice „ 8 „	..	—	1.28			6
(Iodides for last 4 weeks)						
Stabilarsan once weekly for 8 „	..	4.65	—			8
Bivatol twice „ 8 „	..	—	1.28			6
Stabilarsan once „ 8 „	..	4.65	—			8
<hr/>						
Total	56 „	18.60	3.84 grammes.			50

A blood and C.S.F. Wassermann is done one week after the last injection. If both are *negative*, cease the treatment. If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII. If blood is *positive*, repeat Course No. V.

CRITERIA OF CURE.—As before.

$$\text{Course No. VI. E.I.} = \frac{64 \times 100}{72} = 88$$

SIXTH DEGREE SYPHILIS.

(Tertiary and Quaternary Syphilis).

kin, bone and mucous membrane asymmetrical lesions; vascular and visceral involvement. Blood-Wassermann positive. C.S.F. negative

(if C.S.F. is *positive*, treat as Neurosyphilis and give

Course No. VII.).

		Total.		
		Stab.	Bi-Metal.	T.U.
Stabilarsan once weekly for 8 weeks	..	4.65	—	8
(Iodides for last 4 weeks)				
Bismuth twice weekly for 8	..	—	1.28	6
Stabilarsan once	..	4.65	—	8
Bismuth twice	..	—	1.28	6
(Iodides for last 4 weeks)				
Stabilarsan once weekly for 8	..	4.65	—	8
Bismuth twice	..	—	1.28	6
(Iodides for last 4 weeks)				
Stabilarsan once weekly for 8	..	4.65	—	8
Bivatol twice	..	—	1.28	6
(Iodides for last 4 weeks)				
Stabilarsan once weekly for 8	..	4.65	—	8
Total	72	23.25	5.12 grammes.	64

A blood and C.S.F. Wassermann is done one week after the last injection. If both are *negative*, cease treatment. If C.S.F. is *positive*, treat as Neurosyphilis and give Course No. VII. If blood is *positive*, give Course No. V.

CRITERIA OF CURE.—As before.

Course No. VII.

SEVENTH DEGREE SYPHILIS

(Neurosyphilis).

Tabes dorsalis; General Paralysis;

Cerebro-spinal Syphilis.

C.S.F. positive ;

Colloidal gold test positive ;

Cell count increased.

Bivatol	twice weekly for 8 weeks	} Dosage varies with Clinical condition.
Tryparsamide or Myosalvarsan once	„ 8 „	
<i>Lumbar drainage after last injection</i>)		
Iodides	.....for 4 weeks

Repeat the above Course till the cerebro-spinal fluid becomes serologically and cytologically normal.

A patient with Neurosyphilis must continue with treatment at frequent intervals for the remainder of life, no matter how long the cerebro-spinal fluid has been *negative*. Where possible, all cases of Neurosyphilis should be treated with Malaria inoculations.

Course No. VIII.

EIGHTH DEGREE SYPHILIS

(Congenital Syphilis).

1st Year. Under five years of age.

Bismuth	inunctions	daily	for 1 month	} Dosage varies with age of patient.
Myosalvarsan	intramuscularly	for 2 months		
Bivatol	„	3 „		
Myosalvarsan	„	3 „		
Bivatol	„	2 „		
Iodides	„	1 month		

Total 12 months.

For each of the succeeding four years, give two courses of treatment, each extending over a period of four months.

Bivatol	intramuscularly	for 1 month	} Dosage varies with age of patient.
Myosalvarsan	„	1 „	
Bivatol	„	1 „	
Myosalvarsan	„	1 „	

Total 4 months.

If at the end of five years Wassermann is *negative*, treatment is discontinued. If *positive*, give Course No. V.

Over five years of age.—Give Course No. V

SECTION IV.

Medical Inspection of Schools.

Staff.

Medical Officer to the Education

Committee H. OSBORNE, M.D., M.R.C.S., D.P.H.,
(Also Medical Officer of Health) etc.

H. HEATHCOTE, M.D., D.P.H. (Senior.)

G. HEATHCOTE, M.B., Ch.B.

Assistant Medical Officers W. B. MCKELVIE, M.D., F.R.C.S.E., etc.
J. L. BRADLEY, M.B., Ch.B., etc.

School Ophthalmic Officer D. SIMMONS (Miss), M.B., Ch.B.

School Dentists { H. MALLINSON, L.D.S., F.P.S. (retired March).
A. E. SHERRATT, L.D.S., R.C.S.
A. V. LITTLEWOOD, L.D.S.
L. H. POLLITT, L.D.S. (commenced April).
M. G. MACLEOD (Miss), L.D.S. (commenced April).

SCHOOL NURSES.

Miss L. N. HOPSON (Superintendent).

Miss G. WILLIAMS.

„ R. LEE.

„ C. WEIR.

Mrs. A. G. WILLMOTT.

Miss M. MOORE.

„ A. HAIRS.

„ A. ROWLAND.

Miss H. ELLIOTT.

„ W. M. MELLOR.

„ E. CLEMENTS.

„ E. HARLEY.

„ G. BOOTH.

„ M. SALVIDGE.

„ G. E. HINDLEY.

„ N. L. JONES (commenced June.)

CLERICAL STAFF.

Mr. J. A. DARBYSHIRE (Senior).

Miss D. M. BARNES.

„ E. FRIESER.

„ E. BARLOW (resigned August).

„ D. LEECH.

„ M. GRUNDY.

Miss P. HODGE.

„ F. C. GLEESON.

„ A. OWEN.

„ E. HALL.

„ D. McMILLAN (commenced August).

„ E. H. WILSON (commenced October).

Co-ordination.

(a) INFANT AND CHILD WELFARE.—Medical records are 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.

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

School Hygiene.

Much of the work of medical treatment of school children would be unnecessary if it were possible to concentrate more upon the preventive side of the problem. For instance, a good deal of visual defect and eye strain might be avoided if the lighting in all the schools was what it ought to be. In the same way, there is being manufactured in crowded and insufficiently ventilated classrooms much of the material with which open air schools are filled. Similarly, defective hygiene is responsible to a large extent for the spread of epidemic infectious disease among school children. If all the schools were more on open air lines there would, surely, be a great falling-off in the incidence of infectious disease. It is true, procedure can only be slow in this direction because of the great cost involved, but

it is well that the preventive aspect of the problem should not be lost sight of.

With regard to the new schools at present under contemplation, it will be the Committee's policy to provide classrooms on the lines of the Open Air Schools, where the character of site and other conditions permit.

As regards sanitation the schools were regularly visited by the Sanitary Inspectors, who have paid altogether 725 visits. Improvement in the sanitary condition of outside offices, yards, etc., has been maintained.

Sanitary Inspectors' Visits to Schools	725
Defects Found	7
Cisterns defective	1
Surface water gullies defective	2
Waste pipe defective	1
Drains defective	1
Ashbins missing	1
Urinal outlet choked	1
	—
	7

Routine Medical Inspection.

School Doctors visit the whole of the Elementary Schools of the City 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.

The School Medical Inspectors 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 Inspectors at the Inspection Clinics, 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 87 of the Education Act, 1921.

At the present time the aim is to submit every school in the City 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 92,777 "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, etc.

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 CLINICS.

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, oral sepsis to the Dental Clinic, visual defects to the Eye Clinic, scalp ringworm to the X-ray Clinic, and Alopecia to the High Frequency 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, invita-

tion 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, etc.

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 1930 the total number of examinations of children at the Inspection Clinics was 20,202.

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 92,777.

The Nurses have been able to visit all the schools in the City 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 :—

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

INFANTS' DEPARTMENTS.

	BOYS.					GIRLS.				
	No. examin'd	Heads.			Ver- minous bodies.	No. examin'd	Heads.			Ver- minous bodies.
		*A.	B.	C.			*A.	B.	C.	
(A) Aggregate Numbers ..	14588	13525	850	213	56	14315	10083	3468	764	37
(B) Percentages ..	—	92.71	5.83	1.46	—	—	70.44	24.22	5.34	—

UPPER DEPARTMENTS.

	BOYS.					GIRLS.				
	No. examin'd	Heads.			Ver- minous bodies.	No. examin'd	Heads.			Ver- minous bodies.
		*A.	B.	C.			*A.	B.	C.	
(A) Aggregate Numbers ..	32986	30951	1594	441	162	30888	22557	7084	1247	56
(B) Percentages ..	—	93.83	4.83	1.34	—	—	73.03	22.93	4.04	—

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

The accompanying Table shows the work done under
Section 87 of the Education Act, 1921:—

BOYS.					GIRLS.				
Number of Cleansing Notices Served.	Hair Cut.		Cleansed at Mole Wheel Disinfecting Station.	Cleansed at Home.	Number of Cleansing Notices Served.	Hair Cut.		Cleansed at Mole Wheel Disinfecting Station.	Cleansed at Home.
	By Nurse.	By Parent.				By Nurse.	By Parent.		
203	24	115	30	44	700	278	403	9	19

Tonsils and Adenoids.

In routine cases 1,197 were found to be suffering from enlarged tonsils or adenoids, or both, whilst in addition 1,659 special cases were found with the same condition. As in previous years, it was found that a number of cases of enlarged tonsils were temporary in character, the condition disappearing in a short period of time, thus emphasising the importance of re-examining all these cases after an interval of a month or so before deciding on surgical measures.

Tuberculosis.

Amongst the inspection cases there were 108 children diagnosed as suffering from tuberculosis, 16 being fairly definite, and 92 suspected cases. At the same time there were very few advanced cases of phthisis, the majority being probably chiefly confined to the bronchial or mediastinal lymphatic glands and giving rise to indefinite physical signs, although the children were obviously suffering from the effects of toxic absorption, such as languor, anorexia, loss of flesh, night sweats, etc. The majority of such children are adversely affected by compulsory attendance at an ordinary school.

The Committee have fully realised the necessity for further Open Air School provision, and there are now in the City two Open Air Schools for the reception of delicate children.

Ringworm.

Cases of ringworm are notified by Teachers and Attendance Officers, as well as by the Medical Inspection

Staff. All cases are invited to attend periodically at the Centre for inspection, and no child who has been known to have ringworm is allowed to return to school without a certificate from the Medical Officer.

During the year 1930, 22 new cases of scalp ringworm and 50 cases of body ringworm have been under supervision at the Inspection Clinic, and the total number of examinations in these cases amounted to 220.

Alopecia.

There have been 60 new cases under supervision at the Inspection Centre, with a total of 185 examinations.

The Treatment of Alopecia by the High Frequency Current.

The use of the high frequency current has been continued during 1930. The children are now instructed to attend three times a week, as owing to other demands on the nurses' time, it has been found impossible to give the treatment daily. The high frequency current ($\frac{1}{4}$ inch spark) is given for five minutes, which is sufficient to produce a slight reddening of the affected area. The treatment is of considerable value in the more obstinate type of case, and the application is painless. All other treatment, *e.g.*, lotion, is stopped while the child is being treated by the high frequency current.

Three boys and ten girls were under treatment in 1930.

Eczema, Impetigo and Sores.

The number of new cases of these diseases under observation during the past year was 3,046 and the number of examinations 7,052.

Scabies.

There were 191 cases under supervision and 473 examinations.

External Eye Disease.

The bulk of the cases of external eye disease found on inspection, as usual, proved to be conjunctivitis or blepharitis 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, 1,479 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.

One thousand two hundred and eighty-one cases were met with by the Medical Inspectors, and most of these were dealt with at the School Clinics.

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 B.
ROUTINE DENTAL INSPECTION.

	Age.	Number exam- ined.	State of Teeth.				Condition of Gums.			Grinding Capacity.			Temporary Teeth.		Permanent Teeth.			Hypo- plastic.
			Clean.	Fairly clean.	Dirty.	Healthy.	In- flamed.	Septic.	Good.	Average.	Bad.	Sound.	Decayed.	Sound.	Decayed.			
															Saveable.	Un- saveable.		
Boys	6	1774	1386	383	5	866	483	425	209	1471	94	19464	10955	6046	350	79	69	
	7	1746	1356	384	6	826	506	414	166	1474	106	14287	9899	11724	873	204	139	
	8	1943	1484	452	7	893	660	390	168	1664	111	11246	9037	18702	1304	592	334	
	9	1487	1145	335	7	751	445	291	139	1224	124	6318	5903	17555	1141	711	313	
	10	1644	1300	338	6	938	448	258	235	1325	84	4872	4425	24133	1267	1014	252	
	11	965	726	233	6	603	256	106	166	762	37	1697	1593	17315	734	790	263	
	12	847	665	178	4	607	164	76	206	620	21	632	647	17935	699	884	272	
	13	697	521	170	6	485	159	53	181	509	7	189	291	16108	552	878	199	
	14	52	35	16	1	38	9	5	14	35	3	4	15	1219	46	68	45	
	Total	11155	8618	2489	48	6007	3130	2018	1484	9084	587	58709	42765	130737	6966	5220	1886	
	Girls	6	1611	1270	338	3	854	408	349	250	1293	68	17600	9302	6877	428	60	98
		7	1694	1334	354	6	774	519	401	202	1392	100	12995	9093	13009	1085	259	213
		8	1808	1432	368	8	888	555	365	168	1516	124	9392	8296	18852	1454	636	332
		9	1441	1116	320	5	754	414	273	174	1171	96	5184	4755	19147	1196	729	306
10		1565	1246	318	1	968	387	210	304	1201	60	3319	3222	25871	1224	1192	353	
11		869	677	189	3	585	192	92	224	617	28	821	919	17491	786	792	218	
12		722	588	129	5	519	145	58	219	494	9	279	366	16071	672	819	223	
13		584	462	119	3	381	144	59	151	424	9	91	146	13694	689	757	127	
14		74	54	20	—	61	6	7	21	52	1	9	21	1782	61	105	—	
Total		10368	8179	2155	34	5784	2770	1814	1713	8160	495	49690	36120	194794	7595	5349	1870	
Boys & Girls		Total	21523	16797	4644	82	11791	5900	3832	3197	17244	1082	108399	78885	335531	14561	10569	3756

TABLE C.—Continued.

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.	No. Examined.
Boys aged 11— Aggregate No. of Children Percentage	102 10.57	147 15.23	167 17.31	152 15.75	146 15.13	100 10.36	64 6.63	43 4.45	17 1.76	11 1.14	9 .93	2 .21	2 .21	2 .21	1 .11	..	..	..	..	..	..	3117	965 100.00
Girls aged 11— Aggregate No. of Children Percentage	119 13.69	139 15.99	184 21.17	152 17.49	104 11.97	69 7.94	40 4.60	18 2.07	21 2.42	10 1.15	6 .69	1 .12	4 .46	1 .12	..	..	..	1 .12	..	..	..	2497	869 100.00
Boys aged 12— Aggregate No. of Children Percentage	140 16.53	138 16.29	182 21.49	151 17.83	93 10.98	58 6.85	33 3.90	26 3.07	13 1.53	6 .71	3 .35	3 .35	1 .12	..	..	..	..	..	..	..	..	2230	847 100.00
Girls aged 12— Aggregate No. of Children Percentage	111 15.38	139 19.25	159 22.02	112 15.51	86 11.91	53 7.34	27 3.74	13 1.80	8 1.11	6 .83	6 .83	1 .14	..	1 .14	..	..	..	..	..	..	..	1857	722 100.00
Boys aged 13— Aggregate No. of Children Percentage	147 21.09	121 17.36	130 18.65	104 14.92	88 12.63	48 6.89	20 2.87	23 3.30	4 .58	7 1.01	1 .14	1 .14	1 .14	1 .14	1 .14	..	..	..	..	..	..	1721	697 100.00
Girls aged 13— Aggregate No. of Children Percentage	92 15.75	88 15.07	120 20.55	107 18.32	71 12.16	48 8.22	29 4.97	6 1.03	14 2.40	5 .85	..	2 .34	2 .34	..	..	..	..	..	..	..	..	1592	584 100.00
Boys aged 14— Aggregate No. of Children Percentage	12 23.08	9 17.31	8 15.39	8 15.39	5 9.61	5 9.61	3 5.77	..	1 1.92	1 1.92	..	..	..	..	..	..	..	..	..	..	..	129	52 100.00
Girls aged 14— Aggregate No. of Children Percentage	14 18.92	18 24.33	8 10.81	16 21.63	8 10.81	3 4.05	1 1.35	2 2.70	2 2.70	..	1 1.35	..	1 1.35	..	..	..	..	..	..	..	..	187	74 100.00
TOTAL Boys and Girls— Aggregate No. of Children Percentage	1540 7.16	1660 7.71	2836 13.18	2737 12.72	2676 12.43	2222 10.32	1915 8.90	1549 7.20	1315 6.11	922 4.28	685 3.18	483 2.24	355 1.65	230 1.07	148 .69	110 .51	71 .33	34 .16	18 .08	8 .04	9 .04	104015	21523 100.00
Average No. of Decayed Teeth per Child—4.83.																							

Crippling Defects.

Amongst the Code Group cases 25 children were referred for treatment on account of rickets.

Infectious Disease.

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

RETURN OF SICKNESS IN SCHOOLS DURING THE YEAR 1930.

Notifiable Diseases.	Measles.	Whooping Cough.	Chicken-pox.	Mumps.	Ringworm.	Ophthalmia.	Sore Throat.	Bronchitis and Pneumonia.	Colds.	Other Diseases.	Influenza.
860	1358	545	1124	768	65	142	4309	1399	14534	10391	1147

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 schools during the course of routine inspection are referred to the Inspection Clinic for further examination at a later date.

Formerly "Home Visits" for the purpose of following up were carried out almost entirely by the Attendance Officers. The School Nurses, however, are now undertaking this work. During the last year they paid over 3,719 home visits.

Medical Treatment.

A number of defects requiring treatment are dealt with under the Local Authorities' Scheme. This

includes :—(1) The treatment of minor ailments at the School Clinic ; (2) the treatment of scalp ringworm at the X-ray Clinic ; (3) the treatment of alopecia by the High Frequency Current ; (4) the treatment of dental defects at the Dental Clinic ; (5) the treatment of visual defects at the Eye Clinic ; and (6) the surgical treatment of tonsils and adenoids at the Salford Royal Hospital and the Manchester Victoria Memorial Jewish Hospital.

The Minor Ailments Clinic.

During the past year 3,33 new cases were treated at the Minor Ailments Clinics, Regent Road, Teneriffe Street and Police Street, and the attendances of patients totalled 67,995. The cases which received treatment were those who would otherwise have received little or no attention, such as chronic ear discharge, chronic nasal discharge, often accompanied by impaired hearing ; skin diseases such as tinea, alopecia, eczema, impetigo, sores and septic conditions, and such common external eye diseases as conjunctivitis and blepharitis.

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

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

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

All cases attending the Clinic are first examined either at the Inspection Clinic or at school by the Medical Officers, who issue cards authorising the child's attendance at the Treatment Clinic.

The cards show the doctors' diagnosis and instructions for treatment, and the date of attendance is stamped thereon for the information of the teacher. No child is treated at the Minor Ailments Clinic unless first authorised and given a card by the Medical Officer, otherwise the Nurses would be quickly overwhelmed.

The following Table shows the number of new cases and attendances up to December 31st, 1930 :—

	Boys.	Girls.	Total.
New Cases	1951	1388	3339
Attendances	40321	27674	67995

Tonsils and Adenoids.

The Education Committee have an arrangement for the surgical treatment of these cases at the Salford Royal Hospital, and the Manchester Victoria Memorial Jewish Hospital.

Lists of cases considered suitable for operation are submitted to the hospitals. After operation, children are re-examined at the Inspection Clinic by a School Medical Officer.

A charge of 25s. is made by the Salford Royal Hospital, and 27s. 6d. by the Manchester Victoria Memorial Jewish Hospital for each case operated upon, and a portion of this charge is recovered from parents who can afford to contribute towards the cost; 328 cases have been successfully operated on during the year.

Tuberculosis.

Children found to be suffering from definite tuberculosis are generally referred for treatment to the Tuberculosis Department. A certain number of children suffering from suspected tuberculosis are dealt with at the Open Air Schools.

Skin Disease.

RINGWORM.—THE X-RAY CLINIC.

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

From the beginning this Clinic has been so successful in coping with the large amount of scalp ringworm of an obstinate type formerly prevalent in the City that there are nowadays insufficient cases to keep the Clinic working regularly.

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 one case of scalp ringworm during the year. Two cases were certified fit at the end of December.

Of the above one case, it was necessary to epilate one patch only.

Number of re-examinations after X-rays, 9.

The child was fit to return to school again three weeks after the application of the rays.

On the other hand the five cases cured without the application of X-rays were only fit to return to school on the average 22 weeks after the commencement of treatment, one case taking as long as nine months and the majority four to seven 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 Clinics, 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 eight mornings per week (two mornings for each of the four Dentists), 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 8,420 children were treated at the Dental Clinics, making 13,826 attendances. There were 17,115 extractions of teeth, 4,899 fillings, 638 dressings and 708 scalings.

The tables on pages 194-197 show in detail the work carried out during the year 1930.

Crippling Defects.

A number of children suffering from well-marked ricketty 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. The Committee acquired a piece of land adjoining Buile Hill Park which it was thought might be utilised as a site for a Cripple School.

On further consideration it was realised that a considerable amount of money would have to be expended in preparing this site, which again was not quite as open as it might be.

The Committee are therefore in negotiation with a view to obtaining an alternative site.

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 Ophthalmic Clinics.

The Ophthalmic Officer's Report is appended herewith :

REPORT OF THE OPHTHALMIC CLINICS, SALFORD EDUCATION COMMITTEE.

The essential duties are performed at :—

- (1) The Refraction Clinic, held at the Education Office, Chapel Street, Salford.
- (2) The External Eye Diseases Clinic, held at Regent Road.
- (3) The South Bank Sight-saving School, Sandy Lane, Pendleton.

The Refraction Clinic.

At the Chapel Street refraction clinic 1,931 cases have been seen during the past year. This number, large though it is, hardly conveys an accurate idea of the amount of work involved. Every case is seen twice by the Ophthalmic Officer. On their first visit, an examination of the external eye takes place, special attention being paid to the possible existence of latent strabismus. Mydriatics are supplied for use at home during the ensuing week, at the end of which a second visit takes place, when they are submitted to a complete examination and refraction of the internal eye. If necessary suitable spectacles are then prescribed, and the patient attends for the third time a week later, when the nurse in charge tests the accuracy of the lenses and their effect upon the vision of the child. Thus, it will be apparent that nearly 6,000 attendances of patients have taken place during the year. It is a matter of congratulation that during the past year in no case where spectacles have been prescribed has a parent refused to obtain the same. The long list of children waiting for examination, which was a matter of considerable concern, has now been reduced to quite reasonable proportions, and whilst all urgent cases are seen immediately they are referred to the Ophthalmic Officer, those put upon the list for routine inspection are now being seen within the month.

The School Medical Officers, nurses and teachers are taking full advantage of the facilities afforded, with the result that urgent cases now receive that

immediate attention which is absolutely essential if their condition is to be kept under control.

In addition to this, all the myopes have been invited, during the year, to attend for re-examination, in order that their eye condition may be watched, and if necessary their lenses changed to suit any development which may have occurred.

The arrangements made with the Venereal Diseases and the Child Welfare Clinics continue to work satisfactorily. Cases of doubtful specific origin are referred to Dr. Burke for confirmatory diagnosis and constitutional treatment, while all cases of strabismus or any other eye defect coming under the notice of the Child Welfare Department are referred to this Department for advice and suitable treatment.

The External Eye Diseases Clinic.

At the External Eye Diseases Clinic, held at Regent Road, 1,431 cases were examined during the past year. These consisted in the main of simple inflammatory conditions of the eyes and eyelids which rapidly yield to suitable treatment. As a result of the prompt attention now given to these cases there is little doubt that more serious complications are averted and the duration of the necessary treatment considerably shortened.

The South Bank Sight-saving School.

The work during the past year at this school does not call for much comment. The re-organisation of the work which was effected in 1928-29 has been productive of good

results. The systematic physical and ophthalmic examination at regular intervals of all the children is now properly organised, and very considerable improvement continues to be shown in their general condition, with, in many cases, a corresponding increase in their optical capacity.

It is comparatively easy to deal with the various acute conditions as they arise, but unfortunately many of the children are very high or progressive myopes, who can only hope for improvement by careful and regular inspection and the use of spectacles adjusted at intervals to suit their varying conditions and any changes which may have occurred in the meantime.

The average number of children attending this school is 75. During the year 17 new cases have been admitted, while 13 have been discharged, the majority of these having reached the age limit, 16 years, but some being allowed to leave between the ages of 14 years and 16 years, at the discretion of the committee. One case has been referred to Henshaw's Institution for the Blind, and one has been considered fit to go back to an ordinary elementary school.

The number of children admitted to South Bank during the year was 17 (10 girls and 7 boys), and the number discharged 13 (6 girls and 7 boys).

TABLE S IVa.

SUMMARY OF CASES SEEN BY THE OPHTHALMIC OFFICER AT THE
EDUCATION OFFICE DURING THE YEAR 1930.

A.—REFRACTIONS.

	Boys.	Girls.	Total.
Hypermetropia	72	50	122
Hypermetropic Astigmatism	456	464	920
Myopia	109	94	203
Myopic Astigmatism	150	198	348
Emmetropia	18	21	39
Mixed Astigmatism	36	55	91
Anisometropia	27	28	55
Nil	77	76	153
TOTALS	945	986	1931

B.—DISEASES OF THE EYE.

	Boys.	Girls.	Total.
Muscle Disorders—			
Nystagmus	1	—	1
Squint	248	255	503
Disease of the Conjunctivæ and Lids—			
Conjunctivitis	22	18	40
Blepharitis	5	9	14
Disease of the Cornea—			
Nebulæ	1	8	9
Keratitis	—	—	—
Disease of the Lens—			
Cataract	—	—	—
Other Defects	8	3	11

Open Air Schools.

The David Lewis Day School, which provides accommodation for 70 delicate children, was opened on the 28th August, 1916, in the open shed and premises in the David Lewis Recreation Ground. The staff consists of a head teacher with two assistants.

The Barr Hill Day School, which provides accommodation for 100 delicate children, was opened on the 30th May, 1924.

The school is built on an elevated site, standing well above the valley, and its open front looks due south. The plan resembles the letter "E" with the middle tongue missing, the central portion being a shed left permanently open to the south, and windowed to the north. One projecting wing comprises two classrooms, and the other wing the administrative portion, including kitchen and cloakroom. The classrooms, by means of folding glass doors, can be opened to the east, south and west, but are permanently closed to the north.

The staff consists of a head teacher and three assistants.

Delicate children, from 6 to 14 years of age, are admitted, and are daily conveyed to and from the open air schools, free of charge, by a service of special tramcars.

Children arrive at school at 9 o'clock a.m. and remain the whole day, leaving at 6 o'clock p.m. during the summer, and 4-30 p.m. in the winter.

The children admitted to the Open Air Schools are selected by examination by the Medical Staff, and the

parents are urged to get any defects, such as enlarged tonsils and adenoids, or decayed teeth, remedied before admission to the schools.

No children are admitted who are considered likely to be a source of infection to others.

The school nurse attends each school daily, the children are weighed each week, and the Medical Inspector also visits the schools once a week.

Three meals are provided—breakfast, dinner and tea—for which a maximum charge of 5s. per week is made. After dinner the children rest in the recumbent position for two hours, either in the open when weather permits, or under cover when wet.

Children who have been discharged from the Open Air Schools to the ordinary schools are invited periodically to the Clinic, for observation of their further progress.

Open Air Schools, Year 1930.

DAVID LEWIS.

	Boys.		Girls.		Total.
Number of Admissions during 1930	29	..	28	..	57
Number of Discharges during 1930	26	..	32	..	58
Number of Children on Register at end of Year 1930	42	..	38	..	80

CHILDREN DISCHARGED DURING 1930.

	Boys.		Girls.		Total.
Average "Stay" in School (weeks).....	64·6	..	59·7	..	62·1
AVERAGE GAIN IN WEIGHT.....	8·0	..	9·2	..	8·7 lbs.
	yr. mth.		yr. mth.		yr. mth.
Average Age on Admission	9	0	..	10	1
	9			9	7

OPEN AIR SCHOOLS, YEAR 1930, DAVID LEWIS—*Continued.*

	Boys.	Girls.	Total.
Transferred to Ordinary School	18 ..	20 ..	38
Left, aged 14.....	2 ..	7 ..	9
Admitted to Nab Top, Marple	3 ..	1 ..	4
Transferred to Starnthwaite.....	1 ..	— ..	1
Taken off Rolls (poor attendance)	1 ..	1 ..	2
„ „ „ (removed from district) ...	1 ..	1 ..	2
„ „ „ (deceased)	— ..	1 ..	1
„ „ „ (unfit)	— ..	1 ..	1
	26 ..	32 ..	58

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

	Boys.	Girls.	Total.
Tuberculosis, Lungs	1 ..	— ..	1
„ „ (Suspected)	1 ..	3 ..	4
„ Bones	1 ..	1 ..	2
„ „ (Suspected).....	— ..	1 ..	1
„ Glands	2 ..	— ..	2
„ „ (Suspected)	— ..	— ..	—
„ Abdomen	2 ..	— ..	2
„ „ (Suspected)	— ..	— ..	—
Bronchitis	7 ..	10 ..	17
Asthma	2 ..	1 ..	3
Unresolved Pneumonia	— ..	1 ..	1
Rheumatism	— ..	1 ..	1
Chorea	— ..	4 ..	4
Rickets.....	2 ..	2 ..	4
Delicate ..?	6 ..	6 ..	12
Anæmia	1 ..	2 ..	3
Epilepsy	1 ..	— ..	1
	26 ..	32 ..	58

OPEN AIR SCHOOLS, YEAR 1930—*Continued.*

BARR HILL.

	Boys.	Girls.	Total.
Number of Admissions during 1930	55	.. 41	.. 96
Number of Discharges during 1930	49	.. 44	.. 93
Number of Children on Register at end of Year 1930	67	.. 49	.. 116

CHILDREN DISCHARGED DURING 1930.

	Boys.	Girls.	Total.
Average " Stay " in School (weeks)	48·0	.. 55·7	.. 51·8
AVERAGE GAIN IN WEIGHT.....	7·7	.. 9·6	.. 8·6lbs.
	yr. mth.	yr. mth.	yr. mth.
Average Age on Admission.....	9 3	.. 8 10	.. 9 0

	Boys.	Girls.	Total.
Transferred to Ordinary School	34	.. 38	.. 72
Left, aged 14	7	.. 1	.. 8
Admitted to Nab Top, Marple	1	.. —	.. 1
Transferred to Epileptic School	1	.. —	.. 1
„ „ Tuberculosis Dispensary ..	—	.. 1	.. 1
Taken off Rolls (left the district)	1	.. —	.. 1
„ „ (parents' request)	3	.. 1	.. 4
„ „ (unsatisfactory attendance) ..	—	.. 1	.. 1
„ „ (unfit for any School)	—	.. 1	.. 1
„ „ (unfit at present)	1	.. 1	.. 2
„ „ (deceased)	1	.. —	.. 1
	49	.. 44	.. 93

OPEN AIR SCHOOLS, YEAR 1930, BARR HILL—*Continued.*CLASSIFICATION OF DISEASES FROM WHICH THE ABOVE DISCHARGED
CHILDREN WERE SUFFERING.

	Boys.	Girls.	Total.
Tuberculosis, Lungs (Early)	— ..	— ..	—
„ „ (Suspected)	6 ..	1 ..	7
„ Glands.....	— ..	1 ..	1
„ „ (Suspected).....	— ..	— ..	—
„ Abdomen	1 ..	— ..	1
„ „ (Suspected).....	1 ..	— ..	1
„ Bones and Joints	2 ..	2 ..	4
„ „ „ (Suspected)..	— ..	— ..	—
„ Skin	— ..	1 ..	1
Delicate	5 ..	9 ..	14
Anæmia	8 ..	3 ..	11
Bronchitis	10 ..	5 ..	15
Enlarged Tonsils	1 ..	— ..	1
Adenitis	— ..	2 ..	2
Rickets.....	2 ..	3 ..	5
Heart Disease	— ..	— ..	—
Malnutrition	2 ..	6 ..	8
Epilepsy.....	1 ..	2 ..	3
Epilepsy (suspected).....	— ..	1 ..	1
Enlarged Glands	1 ..	1 ..	2
Unresolved Pneumonia.....	1 ..	1 ..	2
Chorea	2 ..	3 ..	5
Scoliosis	— ..	1 ..	1
Post Pneumonic Fibrosis	4 ..	— ..	4
Rheumatism	— ..	1 ..	1
Neurosis	1 ..	— ..	1
Debility	1 ..	1 ..	2
	49 ..	44 ..	93

Observation of Discharges from Open Air Schools.

Fifty-nine of the children discharged from the open air schools during 1926 and 1927 have since been kept under regular observation at the clinic.

The following is a summary of their physical progress after leaving the open air school :—

	Boys.	Girls.	Total.
Total number discharged.....	32 ..	27 ..	59
Progress satisfactory and attending ordinary school	16 ..	14 ..	30
Progress unsatisfactory but attending ordinary school	3 ..	2 ..	5
Progress satisfactory—left school—over 14 years of age	11 ..	7 ..	18
Progress unsatisfactory—left school—over 14 years of age	2 ..	4 ..	6
Total with satisfactory progress			48
„ „ unsatisfactory progress			11

The following are the diagnoses of the conditions for which the children were admitted to the open air schools :—

Delicate	15
Anæmia	14
Bronchitis	11
Tuberculosis, either suspected or in non-infectious state	9
Other diseases	10

An interesting and encouraging feature is the fact that none of these fifty-nine children have had to be re-admitted to the open air schools. Of 27 children who were discharged in 1924 and whose progress was investigated three years later, it was found that five had been re-admitted to the open air schools.

The improvement shown in the figures for 1926 and 1927 discharges is, at least, partly due to the increase of open air school accommodation since Barr Hill was opened.

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 an increase during the year, the average monthly number being 227, as compared with 172 for the previous year.

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

Swimming Instruction.

During the season just closed, 18 Swimming Instructors were appointed for boys and 6 for girls, and the number of attendances of children during school hours at the several baths was 32,482 in the case of boys, and 27,992 in the case of girls, making a total of 60,474, as compared with 64,029 in the previous year. Reports were received from the Instructors that, of the children attending the baths, 1,356 boys and 984 girls proved themselves able to swim.

In order to encourage the children to learn swimming, the Baths Committee have continued the arrangement under which a free season ticket for the ensuing year is given to each scholar who, at the commencement of the season, is unable to swim more than ten yards, and who at the end of the season has proved able to swim one length of the bath. Certificates of proficiency are also awarded by the Education Committee, after an examination conducted by a committee of Teachers. The number of such certificates gained during the past season was 1,927, compared with 1,985 for the previous year.

Co-operation of Parents.

Parents present at the inspection are, of course, notified directly of any defect discovered, and they are advised as to the necessary treatment. When parents are absent at the time of the inspection, and it is desirable that they should be interviewed with respect to defects discovered, invitations for these parents to attend the inspection clinic, together with the children, are issued, and so the cases are followed up.

Co-operation of Teachers.

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

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

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

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

Co-operation of School Attendance Officers.

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

Cleansing notices issued in accordance with Section 87 of the Education Act, 1921, are delivered by the Attendance Officers, who insure the attendance of the verminous children at the cleansing centre.

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

Co-operation of Voluntary Bodies.

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

During the year 1930, the number of children of school age who have been dealt with by the Invalid Children's Aid Association is 179, and the manner in which they have been dealt with is as follows:—

	Boys.		Girls.		Total.
Convalescent treatment, for periods varying from 1 to 21 weeks, total number of weeks 1,223, an average of $7\frac{3}{7}$ weeks per child	76	..	89	..	165
Assistance towards the cost of surgical appliances	8	..	6	..	14

Blind, Deaf, Defective and Epileptic Children.

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

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

Cases of total blindness are sent to a residential institution.

Two of the Assistant School Medical Officers, Dr. H. Heathcote and Dr. G. Heathcote, are engaged in the examination and classification of mentally defective children with respect to their suitability for treatment in:—

- (a) Resident Institutions for Imbeciles and Idiots.
- (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 defective children in respect of their suitability for treatment 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.

(g) Special Residential Hospital Schools.

Mentally defective children who are not in Special Schools are referred to the South-East Lancashire Association for Mental Welfare for supervision, and some of them attend an Occupation Centre.

The South Bank Sight-saving School.

There are 80 children on the rolls, and the teachers at the School constitute the After-Care Committee.

Thirteen children left the School in 1930, and the following is a summary of the records of their after-careers :—

	Boys.	Girls.	Total.
Returned to Ordinary School	—	1	1
Working	6	5	11
Recommended for Institution for the Blind .	1	—	1
	7	6	13

Nursery Schools.

As yet there is but one in the City, namely, in Hulme Street, where about 68 children are in daily attendance. This school is visited each week by the Child Welfare Medical Officer.

Secondary Schools.

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

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

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

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

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

Miscellaneous.

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

The total number of children medically examined in the Elementary Schools during the year amounted to 9,822.

During the year 29,705 invitations were sent out to children referred for medical treatment, and there were 20,959 attendances ; 8,614 cases were discharged from the Clinic, 90·96 per cent of which were remedied. (*See* pages 234-235 of Statistical Tables.)

Summary of Examinations.

During the year 1930, 58,972 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	9,822
(b) Cases of visual defects examined by retinoscopy at Chapel Street	1,931
(c) Absentees and cases of disease or defect examined by the Medical Officers at Regent Road Centre, Teneriffe Street Centre and Police Street Centre	20,202
(d) Verminous cases in which cleansing notices have been served under Section 87 of the Education Act, 1921, examined at Regent Road..	903
(e) Teachers, pupil teachers, intending teachers, and various special cases examined	578
(f) Children examined in the schools by the School Dentists	23,657
(g) Children examined in Secondary Schools	1,677
(h) Employment Certificates issued....	202

STATISTICAL TABLES.

Elementary Schools.

TABLE I.

RETURN OF MEDICAL INSPECTIONS DURING THE YEAR ENDED
31ST DECEMBER, 1930.

A.—ROUTINE MEDICAL INSPECTIONS.

	Boys.	Girls.	Total.
Number of Code Group Inspections—			
Entrants	1582	1627	3209
Intermediates	2143	1907	4050
Leavers	1341	1222	2563
Total	5066	4756	9822

Number of other Routine Inspections

B.—OTHER INSPECTIONS.

	Boys.	Girls.	Total.
Number of Special Inspections	4947	4198	9145
Number of Re-inspections	7501	6792	14293
Total	12448	10990	23438

TABLE I—Continued.
AVERAGE HEIGHTS AND WEIGHTS OF CHILDREN EXAMINED AT THE ROUTINE MEDICAL INSPECTION.

BOYS. AVERAGE HEIGHT IN INCHES.				GIRLS. AVERAGE HEIGHT IN INCHES.			
Average age in years	5 $\frac{6}{12}$	8 $\frac{4}{12}$	12 $\frac{5}{12}$	Average age in years	5 $\frac{6}{12}$	8 $\frac{4}{12}$	12 $\frac{5}{12}$
Number examined	1582	2143	1341	Number examined	1627	1907	1222
Anthropometric standard at 5, 8 and 12 years respectively	40.4	46.9	54.7	Anthropometric standard at 5, 8 and 12 years respectively	40.2	46.3	54.9
Salford average	41.7	47.9	54.9	Salford average	41.6	47.8	55.7
Difference	+1.3	+1.0	+0.2	Difference	+1.4	+1.5	+0.8
BOYS. AVERAGE WEIGHT IN LBS.				GIRLS. AVERAGE WEIGHT IN LBS.			
Average age in years	5 $\frac{6}{12}$	8 $\frac{4}{12}$	12 $\frac{5}{12}$	Average age in years	5 $\frac{6}{12}$	8 $\frac{4}{12}$	12 $\frac{5}{12}$
Number examined	1582	2143	1341	Number examined	1627	1907	1222
Anthropometric standard at 5, 8 and 12 years respectively	38.2	50.2	71.5	Anthropometric standard at 5, 8, and 12 years respectively	37.3	48.9	72.3
Salford average	40.1	52.6	72.8	Salford average	38.4	51.3	74.7
Difference	+1.9	+2.4	+1.3	Difference	+1.1	+2.4	+2.4

TABLE II.

A.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL
INSPECTION IN 1930.

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.
Malnutrition	5	5	16	2
Uncleanliness, head .....	..	..	..	..
" body .....	..	..	..	..
(See Table IV., Group V).				
Skin—				
Ringworm, head	1	..	22	..
" body	4	..	50	..
Scabies	25	..	168	..
Impetigo	96	4	1318	..
Other Diseases (Non-Tubercular)	143	17	1856	..
Eye—				
Blepharitis	32	5	175	..
Conjunctivitis	18	1	362	..
Keratitis	7	..	11	..
Corneal Ulcer	2	..	14	..
Corneal Opacities	3	1	2	..
Defective Vision	727	6	81	2
Squint	168	4	31	..
Other Conditions	18	2	114	2
Ear—				
Defective Hearing	45	100	171	38
Otitis Media	83	49	641	33
Other Ear Diseases	26	30	56	9
Nose and Throat—				
Enlarged Tonsils	207	426	348	149
Adenoids	72	119	196	57
Enlarged Tonsils and Adenoids.	256	117	808	101
Other Conditions	87	54	406	55
Enlarged Cervical Glands (Non- Tubercular)	30	55	215	19
Defective Speech	25	9	20	8
Teeth—Dental Disease	812	5	214	1
Heart and Circulation—				
Heart Disease, Organic	7	19	46	67
" " Functional	27	153	77	92
Anæmia	84	114	188	56

TABLE II—Continued.

A.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL
INSPECTION IN 1930.

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.
Lungs—				
Bronchitis.....	126	107	409	172
Other Non-Tubercular Diseases.	6	3	32	15
Tuberculosis—				
Pulmonary, Definite .....	..	..	8	8
„ Suspected	8	4	43	49
Non-Pulmonary, Glands.....	8	3	20	16
„ Spine .....	..	1	3	..
„ Hip.....	2	2	6	2
„ Other Bones and Joints	1	1	6	3
„ Skin	1	..	5	..
„ Other Forms.	4	1	14	8
Nervous System—				
Epilepsy	7	4	19	6
Chorea.....	11	17	100	27
Other Conditions	29	8	69	26
Deformities—				
Rickets	25	32	43	9
Spinal Curvature	6	4	2	2
Other Forms	22	6	21	3
Other Defects or Diseases	216	95	951	105
Delicate	146	136	269	69
Mentally Defective	17	10	9	2
Dull and Backward	13	3	7	10

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.	
Code Groups—			Per cent.
Entrants	3209	712	22.19
Intermediates	4050	1085	26.79
Leavers	2563	597	23.29
Total (Code Groups)	9822	2394	24.37
Other Routine Inspections .....	..	..	..

TABLE II—Continued.

C.—DETAILS OF RE-EXAMINATION OF CHILDREN IN CODE GROUPS.

Defects or Diseases.	Had Treatment.	Not had Treatment.
Malnutrition.....	3	1
Uncleanliness, head	9	10
" body	10	5
Skin—		
Ringworm, head	1	..
" body	3	..
Scabies	28	..
Impetigo	60	1
Other Diseases (Non-Tubercular)	89	8
Eye—		
Blepharitis	21	4
Conjunctivitis	12	1
Keratitis	3	..
Corneal Ulcer	3	..
Corneal Opacities	1	1
Defective Vision	393	268
Squint	9	15
Other Conditions	3	..
Ear—		
Defective Hearing	44	16
Otitis Media	86	6
Other Ear Diseases	36	1
Nose and Throat—		
Enlarged Tonsils.....	111	140
Adenoids.....	35	32
Enlarged Tonsils and Adenoids	294	275
Other Conditions	71	25
Enlarged Cervical Glands (Non-Tubercular)	18	9
Defective Speech	13	6
Teeth—Dental Disease	363	251
Heart and Circulation—		
Heart Disease, Organic	2	3
" " Functional	65	10
Anemia	30	5
Lungs—		
Bronchitis.....	111	12
Other Non-Tubercular Diseases	1	..
Tuberculosis—		
Pulmonary, Definite.....	1	..
" Suspected.....	4	..
Non-Pulmonary, Glands.....	8	..
" Spine .....	..	..
" Hip	1	..
" Other Bones and Joints ...	1	..
" Skin	2	..
" Other Forms	3	..
Nervous System—		
Epilepsy	2	..
Chorea.....	21	..
Other Conditions	10	1
Deformities—		
Rickets	18	9
Spinal Curvature	6	2
Other Forms	6	4
Other Defects or Diseases	177	32
Delicate	133	18
Mentally Defective	6	2
Dull and Backward	3	2
Number of Children Re-examined	3,236	
Had Treatment.....	2,171	=67.09 per cent.
Not had Treatment	1,065	

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls.	Total.
Blind (including partially blind).	(i.) Suitable for training in a School or Class for the totally blind.	Attending Certified Schools or Classes for the Blind....	6	5	11
		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 blind.	Attending Certified Schools or Classes for the Blind....	36	44	80
		Attending Public Elementary Schools .....	..	..	..
		At other Institutions.....	..	..	..
		At no School or Institution..	..	..	..
Deaf (including deaf and dumb and partially deaf).	(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....	15	11	26
		Attending Public Elementary Schools	1	..	1
		At other Institutions.....	..	..	..
		At no School or Institution..	3	2	5
	(ii.) Suitable for training in a School or Class for the partially deaf.	Attending Certified Schools or Classes for the Deaf....	..	..	..
		Attending Public Elementary Schools .....	..	..	..
		At other Institutions .....	..	..	..
		At no School or Institution..	2	..	2
<i>Mentally Defective.</i>	Feeble-minded (cases not notifiable to the Local Control Authority).	Attending Certified Schools for Mentally Defective Children	1	2	3
		Attending Public Elementary Schools	62	57	119
		At other Institutions.....	1	2	3
		At no School or Institution..	35	28	63
	Notified to the Local Control Authority during the year	Feeble-minded	3	3	6
		Imbeciles	8	5	13
		Moral Imbeciles .....	..	..	..
		Idiots	1	1	2
Epileptics.	Suffering from severe Epilepsy.	Attending Certified Special Schools for Epileptics.....	6	2	8
		In Institutions other than Certified Special Schools....	..	..	..
		Attending Public Elementary Schools	4	5	9
		At no School or Institution..	12	8	20
	Suffering from Epilepsy which is not severe.	Attending Public Elementary Schools	14	11	25
		At no School or Institution..	5	4	9

TABLE III—Continued.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls.	Total.
Physically Defective.	Infectious pulmonary and glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	6	11	17
		At other Institutions.....	..	..	..
		At no School or Institution..	1	..	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 .....	..	..	..
		At Public Elementary Schools.	2	4	6
		At other Institutions.....	..	..	..
		At no School or Institution..	..	1	1
	Delicate children (<i>e.g.</i> , pre or latent tuberculosis, malnutrition, debility, anæmia, etc.).	At Certified Residential Open Air Schools .....	..	..	..
		At Certified Day Open Air Schools	109	87	196
		At Public Elementary Schools.	65	57	122
		At other Institutions.....	1	..	1
		At no School or Institution..	19	13	32
	Active non-pulmonary tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	2	..	2
		At Public Elementary Schools.	2	..	2
		At other Institutions.....	1	..	1
		At no School or Institution..	3	..	3
	Crippled Children (other than those with active tuberculous Disease), <i>e.g.</i> , children suffering from paralysis, etc., and including those with severe heart disease.	At Certified Hospital Schools.	2	..	2
		At Certified Residential Cripple Schools	14	18	32
		At Certified Day Cripple Schools .....	..	..	..
		At Public Elementary Schools.	43	33	76
		At other Institutions.....	1	1	2
		At no School or Institution..	23	26	49

TABLE IIIa.

MENTALLY DEFECTIVE CHILDREN EXAMINED DURING 1930 BY THE
MEDICAL OFFICER.

	Boys.	Girls.	Total.
Idiot	1	1	2
Imbecile	12	11	23
Feeble-minded	69	63	132
„ and Partially Blind	1	1	2
„ and Epileptic	1	3	4
„ and Paralysis	1	3	4
Dull or Backward	68	36	104
Normal	4	—	4
Total	157	118	275

Recommended for	Boys.	Girls.	Total.
Special Resident Institution for Imbeciles and Idiots	13	12	25
„ Resident Institution for Mental De- fectives	9	8	17
„ Day School for Mental Defectives....	59	59	118
Industrial School	1	1	2
Special Class for Dull or Backward.....	53	32	85
Ordinary School	22	6	28
Total	157	118	275

PHYSICALLY DEFECTIVE CHILDREN
(CRIPPLES, EPILEPTICS, ETC.).

	Boys.	Girls.	Total.
Epileptics (Definite or Suspected)	4	4	8
Tuberculosis (Pulmonary).....	—	—	—
„ (Non-Pulmonary)	17	9	26
Rickets	10	8	18
Congenital Malformation.....	9	3	12
Infantile Paralysis	18	15	33
Paralysis, other than Infantile	11	1	12
Heart Disease	2	—	2
Post Encephalitis Lethargica.....	1	—	1
Deaf	2	2	4
Deaf Mute	—	1	1
Defect due to injury	2	—	2
Spinal Curvature	1	2	3
Total	77	45	122

TABLE IIIa—Continued.

Recommended for	Boys.	Girls.	Total.
Special Residential Schools for Epileptics	4	2	6
„ Residential Schools for Cripples	3	—	3
„ Day Cripple School	38	24	62
„ Residential School for the Deaf	2	3	5
Special Resident Hospital School	7	2	9
Day Open Air School	2	1	3
Ordinary School	21	13	34
Total	77	45	122

TABLE IV.

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED
31ST DECEMBER, 1930.

TREATMENT TABLE.

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

Disease or Defect.	Number of Defects Treated or under Treatment during the Year.		
	Under the Authority's Scheme.	Otherwise.	Total.
Skin—			
Ringworm, Scalp	14	4	18
„ Body	45	7	52
Scabies	167	7	174
Impetigo	1281	26	1307
Other Skin Diseases	1763	82	1845
Minor Eye Defects	752	34	786
(External and other, but excluding cases falling in Group II.)			
Minor Ear Defects	817	39	856
Miscellaneous	500	38	538
(Minor Injuries, Bruises, Sores, etc.)			
Total	5339	237	5576

GROUP 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
Errors of Refraction (including Squint)	1931	..	..	1931
Other Defects or Diseases of the Eyes (excluding those recorded in Group I.) .....	..	..	..	..
Total	1931	..	..	1931

Total number of children for whom spectacles were prescribed :—

(a) Under the Authority's Scheme	1403
(b) Otherwise	—

Total number of children who obtained or received spectacles :—

(a) Under the Authority's Scheme	1353
(b) Otherwise	—

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

Received Operative Treatment.			Received other Forms of Treatment.	Total Number Treated.
Under the Authority's Scheme in Clinic or Hospital.	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Total.		
328	188	516	297	813

GROUP IV.—DENTAL DEFECTS.

(1) Number of children who were :—	Number	
(a) Inspected by the Dentist :	of	
Aged :	Children.	Total.
Routine Age Groups, 5 years.....	—	
6 "	3,385	
7 "	3,440	
8 "	3,751	
9 "	2,928	
10 "	3,209	
11 "	1,834	
12 "	1,569	
13 "	1,281	
14 "	126	
	—	21,523
Specials		2,134
Grand Total		<u>23,657</u>
(b) Found to require treatment		13,493
(c) Actually treated		8,420
(d) Re-treated during the year as the result of periodical examination (included under (c) above).....		2,438
(2) Half-days devoted to (a) Inspection	269	
(b) Treatment	1158	
	—	1,427
(3) Attendances made by children for treatment		13,826
(4) Fillings (a) Permanent Teeth	4,890	
(b) Temporary Teeth	9	
	—	4,899
(5) Extractions (a) Permanent Teeth.....	1,453	
(b) Temporary Teeth	15,662	
	—	17,115
(6) Administrations of local anæsthetics for extractions.....		16,744
(7) Other operations (a) Permanent Teeth	1,323	
(b) Temporary Teeth	23	
	—	1,346

GROUP V.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i.) Average number of visits per School made during the year by the School Nurses	3
(ii.) Total number of examinations of children in the Schools by the School Nurses	92,777
(iii.) Number of individual children found unclean.....	2,665
(iv.) Number of children cleansed under arrangements made by the Local Education Authority	319
(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 1930.

Defects or Diseases.	Remedied.	Improved.	No change or no report.	Total.	Percentage remedied.
Malnutrition.....	10	4	..	14	71.43
Uncleanliness, head	11	..	..	11	100.00
„ body	1	..	..	1	100.00
Skin—					
Ringworm, head	18	..	..	18	100.00
„ body	42	..	1	43	97.67
Scabies	173	..	..	173	100.00
Impetigo	1319	2	20	1341	98.36
Other Diseases— (Non-Tubercular)	1706	7	34	1747	97.65
Eye—					
Blepharitis	139	3	4	146	95.20
Conjunctivitis	349	4	6	359	97.21
Keratitis	13	2	1	16	81.25
Corneal Ulcer	11	2	..	13	84.61
Corneal Opacities .....	..	2	..	2	..
*Defective Vision	32	1	29	62	51.61
*Squint	16	1	8	25	64.00
Other Conditions	139	1	2	142	97.89
Ear—					
Defective Hearing	147	11	6	164	89.63
Otitis Media	364	7	4	375	97.07
Other Ear Diseases	109	3	6	118	92.37
Nose and Throat —					
Enlarged Tonsils.....	277	40	47	364	76.10
Adenoids.....	136	9	10	155	87.74
Enlarged Tonsils and Adenoids	571	17	61	649	87.36
Other Conditions	378	14	5	397	95.21
Enlarged Cervical Glands— (Non-Tubercular)	164	6	6	176	93.18
Defective Speech.....	34	5	3	42	80.95
*Teeth—Dental Disease.....	34	..	44	78	43.59
Heart and Circulation—					
Heart Disease, Organic .....	..	39	5	44	..
„ Functional	75	31	11	117	64.10
Anæmia	103	17	8	128	80.47

* These figures include cases coming under the notice of the School Doctor at the Inspection Clinic, and do not include the great bulk of cases treated at the Ophthalmic and Dental Clinics.

RESULTS OF TREATMENT OF DEFECTS OF CHILDREN DISCHARGED
FROM CLINICS DURING 1930—*Continued.*

Defects or Diseases.	Remedied.	Improved.	No change or no report.	Total.	Percentage remedied.
Lungs—					
Bronchitis.....	292	25	14	331	88.22
Other Non-Tubercular Diseases	40	3	2	45	88.89
Tuberculosis—					
Pulmonary, Definite .....	..	2	..	2	..
" Suspected	27	12	3	42	64.29
Non-Pulmonary, Glands	8	2	1	11	72.73
" Spine .....	..	1	1	2	..
" Hip	1	..	1	2	50.00
" Other Bones and Joints ..	..	..	..	..	..
" Skin .....	..	1	1	2	..
" Other Forms ..	2	1	..	3	66.67
Nervous System—					
Epilepsy	14	5	2	21	66.67
Chorea.....	57	9	4	70	81.43
Other Conditions	48	10	7	65	73.84
Deformities—					
Rickets	22	5	5	32	68.75
Spinal Curvature	2	3	2	7	28.57
Other Forms	9	4	3	16	56.25
Other Defects or Diseases	780	25	32	837	93.19
Delicate	160	17	17	194	82.47
Mentally Defective .....	..	2	6	8	..
Dull and Backward	2	2	..	4	50.00
Total	7835	357	422	8614	90.96

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.
Minor Ailments	6875	5339	237	5576
Visual Defects	1931	1931	..	1931
Defects of Nose and Throat.	2380	328	485	813
Dental Defects	13493	8420	..	8420
Other Defects	4677	1016	..	1016
Total	29356	17034	722	17756

TABLE VI.

SUMMARY RELATING TO CHILDREN MEDICALLY INSPECTED AT THE
ROUTINE INSPECTIONS DURING THE YEAR 1930.

(1) The total number of children medically inspected at the routine inspections	9822
(2) The number of children in (1) suffering from—	
Malnutrition	10
Skin Disease	290
Defective Vision (including Squint)	905
Eye Disease	89
Defective Hearing	145
Ear Disease	188
Nose and Throat Disease	1338
Enlarged Cervical Glands (Non-Tubercular)	85
Defective Speech	34
Dental Disease	817
Heart Disease—	
Organic	26
Functional	180
Anæmia	198
Lung Disease (Non-Tubercular)	242
Tuberculosis—	
Pulmonary, Definite .....	..
" Suspected	12
Non-pulmonary	24
Disease of the Nervous System	76
Deformities	95
Other Defects and Diseases	636
(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)	1166
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	2989
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	2152

TABLE Ia.

NUMBER OF CHILDREN IN SECONDARY SCHOOLS INSPECTED
DURING 1930.

A.—ROUTINE MEDICAL INSPECTION.

	Prepara- tory.	Entrants.		Intermediates.		Leavers.		Totals.
		12	13	14	15	16	17	
Boys	48	67	107	128	100	18	6	474
Girls	300	171	214	246	164	56	52	1203
Total ...	348	238	321	374	264	74	58	1677

B.—SPECIAL INSPECTIONS.

	Special Cases.	Re-examinations (i.e., No. of Children re-examined).
Boys
Girls
Totals

**C.—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.)

Number of Individual Children Inspected 1677

TABLE IIa.

A.—ROUTINE INSPECTION OF SECONDARY SCHOOLS.

Defects or Diseases.	No. referred for Treatment.	No. requiring to be kept under observation.
Malnutrition.....	..	..
Uncleanliness, head	25	..
" body .....	..	..
Skin—		
Ringworm, head	1	..
" body	1	..
Scabies .....	..	..
Impetigo	1	..
Other Diseases (Non-Tubercular).....	11	1
Eye—		
Blepharitis	6	..
Conjunctivitis	1	..
Keratitis .....	..	..
Corneal Ulcer .....	..	..
Corneal Opacities	1	1
Defective Vision	169	172
Squint ..	..	12
Other Conditions	1	..
Ear—		
Defective Hearing	5	4
Otitis Media	9	..
Other Ear Diseases	1	..
Nose and Throat—		
Enlarged Tonsils.....	39	35
Adenoids.....	12	5
Enlarged Tonsils and Adenoids	11	3
Other Conditions	10	8
Enlarged Cervical Glands (Non-Tubercular)..	..	4
Defective Speech	3	4
Teeth—Dental Disease	183	1
Heart and Circulation—		
Heart Disease, Organic	9	8
" " Functional	6	36
Anemia .....	..	2
Lungs—		
Bronchitis.....	4	10
Other Non-Tubercular Diseases	1	..

TABLE IIa—Continued.

Defects or Diseases.	No. referred for Treatment.	No. requiring to be kept under observation.
Tuberculosis—		
Pulmonary, Definite .....	..	..
" Suspected .....	..	1
Non-Pulmonary, Glands.....	..	..
" Spine .....	..	..
" Hip .....	..	..
" Other Bones and Joints.	..	..
" Skin .....	..	..
" Other Forms .....	..	1
Nervous System—		
Epilepsy .....	..	..
Chorea.....	..	..
Other Conditions	2	20
Deformities—		
Rickets .....	..	..
Spinal Curvature	6	2
Other Forms	31	18
Other Defects or Diseases	43	46
Delicate	1	..
Mentally Defective .....	..	..
Dull and Backward .....	..	..
No. of Children Examined.....	1677	..
No. of Individual Children having Defects which required treatment or to be kept under observation	509	265

TABLE IIIa.

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

	BOYS.					GIRLS.				
	No. Examined.	Heads.			Vermi- nous bodies.	No. Examined.	Heads.			Vermi- nous bodies.
		A.	B.	C.			A.	B.	C.	
(A) Aggregate Numbers..	474	470	4	..	..	1,203	1,182	20	1	..
(B) Percentages..	..	99·16	·84	..	..	..	98·25	1·66	·09	..

TABLE S I.

CHILDREN EXAMINED AT THE INSPECTION CENTRES BY THE MEDICAL
INSPECTORS.

	Boys.	Girls.	Total.
New Cases.....	4947 ..	4198 ..	9145
Re-examinations	5862 ..	5195 ..	11057
Total Examinations	10809 ..	9393 ..	20202

CHILDREN EXAMINED BY THE EYE SPECIALIST.

	Boys.	Girls.	Total.
Number examined	945 ..	986 ..	1931
Spectacles prescribed for	684 ..	719 ..	1403
„ supplied	655 ..	698 ..	1353

TABLE S Ib.

MEDICAL EXAMINATION OF TEACHERS, ETC.

Teachers	10
Intending Teachers	15
Entrants to Secondary Schools	371
Other Special Examinations	182

TABLE 3 IIa.

CLASSIFICATION OF SPECIAL CASES.

EXAMINED BY THE MEDICAL INSPECTORS, AT THE INSPECTION CENTRES,
DURING THE YEAR 1930.

	Boys.		Girls.		Total Examina- tions.
	1st Exam.	Re- examined.	1st Exam.	Re- examined.	
Number of cases examined.....	4947	5862	4198	5195	20202
Malnutrition	8	6	12	11	37
Cleanliness, head	1	..	7	9	17
„ body.....	2	2	2	1	7
Skin—					
Ringworm, head	12	36	7	38	93
„ body	29	38	29	31	127
Impetigo.....	731	1033	524	879	3167
Scabies	101	145	90	137	473
Alopecia	19	35	41	90	185
Other Diseases	1122	1229	669	835	3855
Eye—					
Defective Vision and Squint ..	55	11	46	13	125
External Eye Disease	363	830	320	777	2290
Ear—					
Defective Hearing	111	96	95	85	387
Ear Disease	383	802	355	704	2244
Teeth—					
Dental Disease	103	12	104	18	237
Nose and Throat—					
Enlarged Tonsils	225	169	256	204	854
Adenoids	132	103	103	100	438
Enlarged Tonsils and Adenoids	441	315	465	288	1509
Tonsillitis	46	79	59	81	265
Rhinitis	88	154	75	137	454
Other Diseases	68	55	88	59	270
Defective Speech	19	8	6	4	37

TABLE S Ila—Continued.

CLASSIFICATION OF SPECIAL CASES—Continued.

	Boys.		Girls.		Total Examina- tions.
	1st Exam.	Re- examined.	1st Exam.	Re- examined.	
Heart and Circulation—					
Organic Disease	56	72	61	85	274
Functional Disease	67	74	89	67	297
Anæmia	111	151	138	202	602
Lungs—					
Pulmonary { Definite	9	8	6	7	30
Tuberculosis { Suspected	53	48	44	48	193
Chronic Bronchitis	309	420	274	339	1342
Other Disease	22	24	26	22	94
Nervous System—					
Epilepsy	20	13	8	17	58
Chorea.....	56	123	76	142	397
Mentally Defective.....	5	3	8	1	17
Other Disease	42	40	47	52	181
Non-Pulmonary Tuberculosis—					
Glands.....	17	27	13	26	83
Bones and Joints	9	11	4	5	29
Other Forms	21	19	12	8	60
Enlarged Cervical Glands (Non- Tubercular)	125	164	99	122	510
Delicate	155	158	179	173	665
Rickets	34	32	18	16	100
Deformities	13	17	18	9	57
Other Defects or Diseases	536	532	476	553	2097
Dull and Backward	14	5	4	..	23
Abscess	39	73	52	80	244
Fit for School	8572	..	7138	..	15710

TABLE S IIIa.

BLIND, DEAF AND DEFECTIVE CHILDREN.

NEW CASES SENT TO SPECIAL SCHOOLS DURING 1930.

	Boys.	Girls.	Total.
To Royal Residential School for the Deaf	1	2	3
„ South Bank Sight-saving School..	7	10	17
„ Other Special Schools	4	2	6
TOTALS	12	14	26

TABLE S III b.

TOTAL NUMBER OF CHILDREN MAINTAINED IN INSTITUTIONS, AT THE
PART COST OF THE COUNCIL, AS AT SEPTEMBER 30TH, 1930.

Name of Institution.	Boys.	Girls.	Total.
Henshaw's Institution for the Blind, Manchester..	5	4	9
Catholic Blind Asylum, Liverpool	1	1	2
Royal Residential Schools for the Deaf, Manchester.	12	11	23
Jews' Deaf and Dumb Home	1	..	1
St. John's Institution for the Deaf and Dumb, Boston Spa	2	..	2
Soss Moss Epileptic Colony School	1	..	1
Starnthwaite Epileptic Home	4	..	4
Home for Epileptics, Maghull .....	..	1	1
„ „ Chalfont St. Peter .....	..	1	1
„ „ St. Elizabeth's, Much Hadham.....	1	..	1
Sandlebridge School for Feeble-minded	1	1	2
Pield Heath House for Mental Defectives, Hillingdon .....	..	1	1
Greengate Hospital and Open Air School	14	18	32
Heatherwood Hospital, Ascot	1	..	1
Shropshire Orthopædic Hospital, Gobowen.....	1	..	1
Sunshine Home for Blind Babies, Southport	1	..	1
TOTALS	45	38	83

TABLE S V.

INSPECTION, TREATMENT, ETC., OF CHILDREN DURING 1930.

(1) The total number of children medically inspected (whether Code Group, special or ailing child)	18,967
(2) The number of children in (1) suffering from defects (other than uncleanness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	1,991
(3) The number of children in (1) who were referred for treatment (excluding uncleanness, defective clothing, etc.)	10,142
(4) The number of children in (3) who received treatment for one or more defects (excluding uncleanness, defective clothing, etc.)	8,602

SECTION V.

Report Relating to the Veterinary Inspector's Department.

DISEASES OF ANIMALS ACTS, 1894—1927.

Cattle Market.

The Cattle Market was held each market day throughout the year.

The numbers of cattle and sheep exhibited for sale show a slight decrease on the previous year's figures.

The animals exposed for sale were inspected and excepting those animals dealt with under Article 12 of the Tuberculosis Order of 1925, no animal was found to be affected with any Scheduled disease.

After each market the pens, roads, and lairs were thoroughly washed and disinfected, under the supervision of the Markets Superintendent.

The following table shows the number of animals exposed for sale during the year.

Irish Fat and Store Cattle	22,888
Irish Dairy Cattle	4,127
Other Fat and Store Cattle	33,467
Other Dairy Cattle.....	19
	<hr/>
	60,501
	<hr/>
Irish Sheep	14,323
Other Sheep	301,694
	<hr/>
	316,017
	<hr/>

The number of motor vehicles used in the conveyance of animals to and from the Market continued to increase. Many of these vehicles were capable of carrying a large number of animals, and their range extended considerably, weekly consignments being brought from Carlisle, North Wales, North and West Riding of Yorkshire, and all parts of Lancashire and Cheshire.

In view of this, the importance of cleansing and disinfection was appreciated, and constant supervision was maintained to ensure that this was done in a satisfactory manner.

A place was provided in the Market for this purpose, and water, brushes, and disinfectant were supplied by the Corporation for a small charge, the actual cleansing and disinfection being done by the person in charge of the vehicle.

Proceedings were taken in one instance against the owner of a float for failing to comply with this Section of the Transit of Animals Order of 1927. The vehicle was one of the large type, and after bringing sheep to the Market it was reloaded with ten cattle for Wakefield Market without having been cleansed. The case was heard at the City Police Court and the defendant was convicted of the offence and fined £10.

The Transit of Animals (Amendment) Order of 1930, imposing further conditions on such vehicles was issued by the Ministry of Agriculture and Fisheries during the year; part of this Order came into operation on October 1st. This Order provides for the disinfection of horse-

drawn vehicles under similar conditions to motor vehicles. It also provides for the keeping of a record of stock carried, and particulars relating to the cleansing of the vehicle after each journey. The record book is required to be carried on the vehicle and is inspected from time to time.

The Cattle lairs, both private and those owned by the Corporation, have been regularly inspected and have been generally found to be satisfactory. On the few occasions that they have not been quite satisfactory a caution has had the desired effect.

Tuberculosis Order, 1925.

The only animals dealt with under the above Order were those exposed for sale in the Cattle Market and dealt with under Article 12 of the Order. In each case the person in charge was given the option of either returning the animal to its place of origin and there reporting it, or having it killed at his own risk at the Corporation slaughterhouse adjoining the Market. In every case it was decided to have the animal slaughtered and the owner was thus able to see the post mortem and if the carcass was fit for food he had the opportunity of selling it.

All emaciated cows are dealt with as suspected to be suffering from tuberculosis, but, needless to say, many of these, when slaughtered, were found to be suffering from some disease other than tuberculosis. The most common conditions causing extreme emaciation, apart from tuberculosis, were Johne's disease (which appears

to have been more common during the last twelve months), hydatid disease, and pyæmic diseases.

Old worn-out cows still continue to find a market ; many of these travel a long way, in some instances from places approximately two hundred miles distant from the Market. Many are found to be affected with tuberculosis when killed but do not come within the Order when alive. When one sees the extensive lesions which can be present in a carcase and no symptoms are shown during life one realises that something more comprehensive than the present Tuberculosis Order is necessary if it is going to have any marked effect on the incidence of tuberculosis in the dairy herds. Such cattle are just as much disseminators of the disease as animals which come within the Order.

Foot and Mouth Disease.

Only a few isolated outbreaks of Foot and Mouth Disease occurred in the British Isles during the year and none of those was near enough to have any effect on the movement of cattle within the City. The nearest outbreak occurred in the West Riding of Yorkshire.

In most of the serious outbreaks in the past, the infection has spread from a market and, therefore, particular watch was kept for this disease in all animals entering the Cattle Market, particularly as they were drawn from a very wide area.

The Foot and Mouth Disease Order of 1930 came into operation during the year. This Order empowers an

Inspector of the Ministry of Agriculture and Fisheries, in the event of an outbreak of Foot and Mouth Disease, to treat contact animals with a protective serum and so diminish the number of secondary outbreaks, reduce the number of animals to be slaughtered, and reduce the area in which it is necessary to impose restrictions. This method of dealing with an outbreak is in the nature of an experiment and the slaughter policy remains the basic policy as before.

Anthrax Order, 1928.

Twelve notifications of cattle having died suddenly were received during the year. These were cattle which had died in course of transit and were found dead or at the point of death in the railway cattle waggon on arrival in Salford. All such animals are suspected to have died from Anthrax until the contrary is proved and no carcase is moved from the station until a microscopic examination of a blood smear has been carried out.

In each case the result of the examination was negative, the cause of death being injury during transit.

Parasitic Mange Order, 1911.

Reports were received of three suspected cases of Parasitic Mange. On examination two were declared positive and one negative.

One of the positive cases occurred in a stable where the affected horse was kept along with nine others. The affected animal was isolated and treated with a parasiticide, but after a few days treatment the owner

decided to have the horse slaughtered. None of the other horses showed signs of the disease and on completion of the disinfection of the stables and harness, etc., the restrictions were removed.

In the other case one animal was affected in a stable of one hundred and sixty-seven horses. The affected horse was immediately isolated and the other horses clipped and examined. There was no further extension of the disease and after three weeks treatment the affected animal was declared free from disease and the restrictions on the premises were removed.

A more extensive outbreak occurred on the same premises in 1929, and this was probably the source of infection in this case.

Importation of Dogs and Cats Order, 1928.

Notices were received from the Customs Officers that fifty-seven ships were in dock with dogs aboard. The ships were visited in order to ascertain that the dogs were being controlled in accordance with the requirements of the Order.

Swine Fever Order, 1908.

Swine Fever was very prevalent in South East Lancashire during the earlier part of the year. This necessitated the Minister of Agriculture and Fisheries creating the Lancashire Swine Fever Order of 1930, which Order restricted the movement of swine in Lancashire except on licence and it had the immediate effect of causing a decrease in the number of outbreaks.

The Order came into operation on the 1st June and was revoked a few months later.

During the year eleven outbreaks occurred in the City. These were in dressed carcasses in one of the slaughterhouses, some of which were extensions from outbreaks in other districts, and others were from premises where the disease had not been previously reported. In each case the Ministry of Agriculture and Fisheries was notified and also the local authority of the district from which the pigs had come. In every case the conditions of the Order were observed.

Importation of Animals Act, 1922.

ANIMALS (LANDING FROM IRELAND, CHANNEL ISLANDS, ISLE OF MAN) (AMENDMENT) ORDER OF 1927.

The Cattle Market was divided into two sections, part for animals subject to the provisions of the above Order, and part for other animals. Constant watch was kept to see that such animals were kept separate while in the Market and in the lairs prior to sale in the Market.

Imported animals could only be moved from the Market by licence authorising the movement to specified premises. Imported animals intended for slaughter were also received in private lairs in Salford and these required a licence authorising the movement if they had to be moved to a slaughterhouse within six days of their arrival at the lairs.

During the year 7,677 licences were issued authorising the movement of approximately 69,338 animals.

There was one prosecution for contravening Section 33a of the Animals (Landing from Ireland, Channel Islands, and Isle of Man) Order of 1923.

The occupier of certain lairs in the City received a consignment of store pigs from Ireland. These pigs were on licence, one of the conditions of which was that they should remain for 27 days on arrival at the lairs. It was subsequently found that eighteen of the pigs had been moved to a slaughterhouse and no licence had been obtained authorising the movement. The occupier of the premises was charged with unlawfully moving swine and was convicted of the offence and fined £1 together with £1 1s. 0d. costs.

Railway Pens and Cattle Trucks.

There are two cattle stations in Salford, which, besides being the stations for the Cattle Market and Manchester Abattoir, are also used as depots for cleaning waggons from outside districts.

These stations have been visited regularly and the cleansing and disinfection of the trucks and cattle pens has been carried out in a satisfactory manner.

There were 37,111 cattle trucks cleansed and disinfected during the year.

The number of cattle received into and forwarded out of this City was as follows :—

CATTLE RECEIVED INTO THE CITY.

Cattle.	Sheep.	Pigs.	Calves.	Horses.
86,867	491,967	3,246	1,253	177

FORWARDED OUT OF THE CITY.

Cattle.	Sheep.	Pigs.	Calves.	Horses.
2,7762	131,496	336	64	169

THE MILK SUPPLY.

Tuberculous Milk.

Five hundred and thirty samples of milk were biologically examined for tubercle bacilli. This number represents :—

465 samples from farm supplies.

53 samples of " Pasteurised " Milk

4 samples of " Certified " Milk

4 samples of Grade " A " Milk.

4 samples of mixed milk.

Thirty, or 6·4%, of the samples from farm supplies were found to contain tubercle bacilli; each sample represented all the milk produced on the farm at one milking, and thirty one, or 5·8% of the total samples examined were positive.

The total number of samples obtained from Cheshire farms and found to be positive was the lowest since 1922. It was chiefly during the latter half of the year

that the improvement was noticed and it is hoped that this may be maintained.

The examination of milk for tuberculosis is now being carried out in districts where it had not previously been done and in districts where it has been customary to sample milk the number of samples taken annually has been increased. In this City the number of samples examined gradually increased from one hundred and ninety-seven in 1922, to five hundred and thirty in 1930. This increased supervision on the part of consuming authorities has been the means of more tuberculous cows being detected, and is bound to cause some reduction in the incidence of tuberculosis in the milk supply. Furthermore, farmers armed with the knowledge that their milk is likely to be examined are more particular about buying a cow which is not quite correct in the udder, and, therefore, the movement of such cattle is more restricted than was previously the case.

It has been said that this method of controlling tuberculosis is working at the wrong end, but unless there is control at the producing end it is essential that there should be some sort of control at the consuming end.

The thirty farms giving a positive result were visited and the cattle examined. On seventeen farms one cow was found giving tuberculous milk, three farms had two or more cows affected and on ten farms no cow was found affected. In each case the finding was controlled

by a mixed sample of milk taken from the total cows in the herds, exclusive of those suspected and examined separately.

Twenty-five cows were found affected and these were dealt with under the Tuberculosis Order, 1925, by the respective local authorities. On the farms where no cow was found affected it was assumed that the affected animal had been moved off the premises during the period between taking the sample and the examination of the cattle.

The sixty-one samples of "Designated" milk examined all gave negative results. This is particularly interesting regarding the fifty-three samples of "Pasteurised" milk.

PARTICULARS OF MILK SAMPLES EXAMINED FOR
TUBERCULOSIS.

	No. taken.	Posi- tive.	No. of cows found affected at the time of the exam- ination of the herds.	No. of premises on which affected cows were found.	No. of premises on which no affected animal was found.	No. of premises where two or more cows were affected.
Samples from farm supplies	465	30	25	20	10	3
"Pasteurised"	53	—	—	—	—	—
Special samples	12	1	1	—	—	—

TABLE SHOWING NUMBER OF SAMPLES OF MILK OBTAINED FROM VARIOUS COUNTIES, AND THE NUMBER AND PERCENTAGE FOUND TO BE TUBERCULOUS, FOR THE YEARS 1923-1930.

	Year 1923.			Year 1924.			Year 1925.			Year 1926.			Year 1927.			Year 1928.			Year 1929.			Year 1930.		
	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.	Total number of samples examined.	Number positive.	Percentage positive.
Cheshire	123	17	13.8	126	14	11.1	203	22	10.8	157	14	8.9	178	20	11.2	220	23	10.4	240	26	10.8	253	21	8.3
Lancashire	94	5	5.3	76	6	8.0	90	4	4.4	152	7	4.6	124	6	4.8	135	7	5.1	148	14	9.4	156	7	4.4
Yorkshire	21	1	4.7	14	..	..	16	1	6.2	17	1	6.0	41	4	9.7	58	4	6.9	48	1	2.0	41	1	2.4
Staffordshire	7	..	..	7	1	14.3	2	..	..	1	..	..	8	1	12.5	15	2	13.6	8	2	25.0	7	..	..
Derbyshire	31	..	..	39	2	5.0	14	2	14.3	..	..	..	9	..	..	15	1	6.3	9	1	11.1	1	..	..
Shropshire .....	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..
Westmorland .....	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cumberland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	1	14.2
Somerset .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wales	1	1	100.0	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scotland	1	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mixed .....	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	12	2	16.6	9	1	11.1	12	1	8.5
Pasteurised .....	..	..	..	..	..	..	..	..	..	..	..	..	11	..	..	9	..	..	1	0	0	53	..	..
Total for year	278	24	8.63	265	23	8.7	331	29	8.75	329	22	6.68	371	31	8.3	466	39	8.3	463	45	9.71	530	31	5.8

Milk (Special Designations) Order, 1923.

The following licences were issued during the year:

- 12 Dealer's Licences to sell milk as "Certified."
- 1 Supplementary Licence to sell milk as
"Certified."
- 10 Dealer's Licences to sell milk as "Pasteurised."
- 2 Supplementary Licences to sell milk as
"Pasteurised."

The amount of milk sold under the above Order is very little indeed. The approximate amounts sold daily, exclusive of "Pasteurised" milk, is: "Certified"—17·5 gallons, Grade "A" (Tuberculin Tested) milk—6 gallons, and Grade "A" milk—17 gallons.

The chief reason that none of these grades of milk is popular is the high price which is charged for them. "Certified" milk is retailed at approximately one shilling per quart in Summer and one shilling and two pence to one shilling and threepence per quart in Winter. Grade "A" (Tuberculin Tested) Milk is about the same. Whether or not the cost of producing milk from cattle which have passed the tuberculin test justifies this high price is a matter of opinion, but there is no doubt that it is of no benefit to the poorer class of people. As for "Pasteurised" milk, the majority of the public consume such milk and are not aware that they are doing so, nor have they any guarantee that it is pasteurised in the manner approved by the Ministry

of Health as it is not labelled "Pasteurised" but is sold merely as "milk."

Milk Supply to the Institutions.

The milk supplied to the Hospitals is partly Grade "A" and partly "Pasteurised" and that supplied to the special schools is raw milk produced under similar conditions to Grade "A" the only difference being that the producer is not licensed. The reason for this grade is that the school supply is intermittent—none being supplied on Saturdays and Sundays and during the school holidays and consequently the contractor has to find another outlet for the milk at these times.

The raw milk is produced on three farms which are under the supervision of the Corporation Veterinary Inspector. The contract is between the producer and the Corporation and not through a middle-man as was previously the case. This is more satisfactory, as the producer is able to get a better price for his milk and, therefore, has greater inducement to keep his milk up to standard, and he is directly responsible to the Corporation for the quality and delivery.

The cattle and premises are frequently examined and samples of milk for bacteriological examination are taken from time to time as the milk is delivered at the Hospitals. The examination of the milk for bacterial content, besides being a check on the method of production, acts as an incentive to the farmer to keep his milk up to standard.

On one farm the average bacterial content of nineteen samples of milk was 11,692 organisms per c.c. and only in one instance were coliform organisms present in dilutions of more than 1/10 of a c.c. On another farm the average of eighteen samples was 45,027 organisms per c.c., and in two samples were coliform organisms present in more than 1/10 of a c.c. The third farm has only recently been under contract and only two samples have been taken, both of which were satisfactory * The above results, which are of samples taken at different periods throughout the year, are an indication of the care which is taken in the handling and distribution of the milk and demonstrate what it is possible to achieve on any farm where reasonably clean methods are adopted. Not only is the milk produced under clean conditions but the cattle are well housed and well fed so that the milk is the product of strong healthy cows.

The "Pasteurised" milk is supplied from a dairy fitted with a modern type of Pasteurising Machine. I do not wish to say anything about the pros and cons of "Pasteurised" milk and Grade "A" milk as there are so many factors to be considered besides bacterial content, but on comparison of this point alone the "Pasteurised" milk has on an average given a higher bacterial content than the Grade "A" milk and in a much higher percentage of samples coliform organisms have been present in dilutions of more than 1/10 of a c.c.

An average of twenty three samples of "Pasteurised" milk examined show a bacterial content of 47,791

* The maximum number of organisms permitted in a sample of Grade "A" milk is 200,000 per c.c., and no coliform organisms in 1/100 c.c., so that the contract farms have kept well within the standard.

organisms per c.c. (this is exclusive of one sample which was uncountable) and in ten samples or 43 per cent of the number examined, coliform organisms were present in dilutions of more than 1/10 of a c.c.

Farms within the City.

There are approximately ninety cattle kept on five different premises in the City, which is the same as last year. These premises are regularly inspected and the cattle and buildings examined. They have generally been found to be kept in a satisfactory manner and no cow was found affected with any of the diseases notifiable under the Milk and Dairies (Consolidation) Act, 1915.

Inspection of Dairies.

There are six hundred and ninety persons registered as Retail Purveyors of Milk.

The policy of the Health Committee which was explained in last year's report, has been continued. The result has been satisfactory and there are now three hundred and twenty nine persons registered for the sale of bottled milk only. A great many more are waiting to be dealt with and when this is done it is hoped, with few exceptions, that all the shops of the mixed business type will sell bottled milk only.

Twenty eight Milk Retailers appeared before the Health Committee to show cause why they should not be removed from the Register. The reasons were

practically the same in each case, viz., the shops were overcrowded and could not be properly cleansed and certain objectionable articles were sold in conjunction with loose milk. After hearing the report of the Medical Officer of Health and the statements of the occupiers of the premises, the Committee decided that nineteen persons be removed from the Register, four complied with the requirements of the Medical Officer of Health and were retained on the Register and five cases were deferred for further consideration. Those who were removed from the Register were re-registered for the sale of bottled milk only.

In view of the increase in bottled milk attention was given to the method of cleansing the bottles and it was found that, whereas the larger dairies had a proper bottle washing outfit, some of the smaller dairymen were content with cleansing the bottles by hand and rinsing them under the hot water tap. Such a procedure was considered unsatisfactory and notice was sent to all dairymen notifying them that unless a proper bottle washing machine was installed they would not be allowed to bottle any milk. This policy has been very successful and all dairymen bottling milk are now equipped with a boiler, turbine brush, and steam chest. Even in the small dairies where space is limited it has been possible to fit such a plant.

Inspection of Meat.

TABLE OF MONTHLY SEIZURES OF DISEASED AND UNSOUND FOOD
DISCOVERED DURING ROUTINE INSPECTION, AND OF UNSOUND
FOOD SURRENDERED BY THE OWNER THEREOF DURING 1930.

Month.	No. of seizures.	Beef lbs.	Mutton lbs.	Pork lbs.	Veal lbs.	Miscel. lbs.	Total
January ...	120	2924	700	2624	—	—	6248
February ..	84	4264	520	3130	—	17 FISH	7931
March	135	1260	1435	4042	—	—	6737
April	80	1620	735	1725	—	—	4080
May	97	1551	283	1932	—	—	3766
June	84	1192	105	2700	—	—	3997
July	70	2096	70	3159	—	—	5325
August	83	1282	—	4762	—	56 HAM	6100
September .	88	1871	195	2726	—	—	4792
October	105	3480	105	2056	—	40 DAMSONS 18 RABBITS 78 FOWL	5777
November ..	76	2898	105	1424	140	—	4567
December ..	155	1265	175	3314	—	—	4784
	1177	25703	4428	33624	140 209		64104

Unsound Food.

The following table shows the amount and class of unsound food destroyed during the year. All unsound food is destroyed by burning, either on the premises or at the Corporation Destructor.

	tons.	cwts.	qrs.	lbs.
Pork	15	—	—	24
Beef	11	9	1	27
Mutton	1	19	2	4
Veal	—	1	1	—
Fowl.....	—	—	2	22
Ham.....	—	—	2	—
Damsons	—	—	1	12
Rabbits	—	—	—	18
Fish	—	—	—	17
	28	12	1	12

TABLE SHOWING THE AMOUNT OF FOOD CONDEMNED FROM
VARIOUS CAUSES DURING 1930.

No. of seizures.	Cause of seizure.	Weight in lbs.
574	Tuberculosis	26,441
109	Injury	6,660
105	Pneumonia and Pleurisy	2,000
94	Cirrhosis	910
59	Decomposition	3,262
59	Parasitic	551
55	Swine Fever	7,584
28	Septicæmia	4,280
17	Jaundice	2,240
15	Emaciation	3,175
16	Pyæmia	1,310
14	Cavernous Angeoma	200
7	Dropsy	1,115
5	Nephritis	754
4	Johnnes Disease	661
4	Peritonitis	630
4	Bacterial Necrosis	56
2	Actinomycosis	49
2	Uræmia	620
2	Septic Pericarditis	496
1	Septic Metritis	520
1	Moribund	540
<hr/> 1,177 <hr/>		<hr/> 64,104 <hr/>

Of the total weight of meat seized, 11 tons 16 cwts. 0 qrs. 9 lbs., or 41.24 per cent, was seized on account of tuberculosis.

TABLE SHOWING THE NUMBER OF PIGS INSPECTED, THE NUMBER FOUND TO BE AFFECTED WITH TUBERCULOSIS, AND THE PERCENTAGE SO AFFECTED DURING THE YEARS 1921-1930.

Year.	Number Inspected.	Diseased.	Percentage Diseased.
1921.....	11,111	512	4.6
1922.....	14,809	824	5.5
1923.....	13,015	606	4.6
1924.....	18,742	931	4.9
1925.....	15,684	697	4.4
1926.....	13,672	424	3.1
1927.....	12,702	512	4.03
1928.....	16,992	757	4.4
1929.....	14,110	606	4.22
1930.....	12,473	469	3.7

Slaughterhouses.

There are six private and one public slaughterhouses in the City. One of the booths of the Corporation Slaughterhouse is let to a private butcher and another to a horse slaughterer. In the other booths slaughtering is carried out by the Corporation slaughterman for various butchers.

The slaughterhouses have been visited whenever slaughtering has taken place.

NUMBER OF CARCASSES INSPECTED AND DISEASED.

		No. Inspected.	No. Diseased.
Private Slaughterhouses	Cattle	1,803	60
	Sheep	8,973	1
	Calves	8	—
	Pigs	12,468	812
Public Slaughterhouses	Cattle	392	27
	Sheep	676	57
	Calves	14	—
	Pigs	5	—
	Horses	263	—
		<hr/> 24,602 <hr/>	<hr/> 957 <hr/>

Retail Meat Shops and Food Preparing Premises.

The retail meat shops and food preparing premises have been visited regularly.

There were three seizures by order of a magistrate for unsound meat and in several instances small quantities of meat were surrendered for destruction.

Special attention has been paid where meat products are made. The meat shops and food preparing premises have been generally found to be clean and conducted in a satisfactory manner, but some difficulty has been experienced in getting butchers to label imported meat in accordance with the Sale of Food Order, 1921.

Offensive Trades.

The following is a list of offensive trades registered in the City. There has been no complaint arising from these trades.

NATURE OF TRADES.

Tripe Dressing	4
Soap Works	3
Tanneries	1
Skin Dressers	1
Gut Scrapers	3
	—
Total	12

SCHEDULED DISEASES CONFIRMED DURING THE PERIOD 1926-1930.

Year.	Parasitic Mange.	Anthrax.	Foot and Mouth Disease.	Tuberculosis.	Swine Fever.
1926	1	—	1	—	—
1927	—	1	—	2	—
1928	—	—	—	3	2
1929	1	—	—	—	12
1930	2	—	—	—	11
Total	4	1	1	5	25

NUMBER OF VISITS TO SLAUGHTERHOUSES AND NUMBER OF CARCASSES INSPECTED, 1926-1930.

Year.	Visits to slaughter- houses.	Cattle.	Sheep.	Pigs.	Calves.
1926	2,301	2,869	8,586	13,672	394
1927	2,257	2,892	8,363	12,702	10
1928	2,687	2,452	9,525	16,992	18
1929	2,506	2,490	10,134	14,110	82
1930	2,404	2,195	9,649	12,473	22
Total	12,155	12,898	46,257	69,949	526

WEIGHT OF UNSOUND FOOD DESTROYED, 1926-1930.

Year.	tons.	cwts.	qrs.	lbs.	Tins of food.
1926	14	5	0	21	285
1927	21	8	0	19	240
1928	23	7	3	8	223
1929	25	14	1	22	—
1930	28	12	1	12	—
Total	113	7	3	26	748

CATTLE AND SHEEP EXHIBITED FOR SALE IN THE SALFORD CATTLE
MARKET, 1926-1930.

Year.	Fat Cattle.	Sheep.	Dairy Cows.
1926	34,147	272,505	3,499
1927	58,809	398,389	4,923
1928	44,360	320,395	3,143
1929	62,464	344,976	4,163
1930	56,355	316,017	4,146
Total	256,135	1,652,282	19,874

MILK SAMPLES EXAMINED FROM FARM SUPPLIES AND THE NUMBER
AND PERCENTAGE FOUND TO BE TUBERCULOUS, 1926-1930.

Year.	Samples examined.	Samples positive.	Percentage positive.
1926	329	22	6.68
1927	371	31	8.3
1928	466	39	8.3
1929	463	45	9.71
1930	465	30	6.45
Total	2,094	167	7.97

PROSECUTIONS DURING PERIOD 1926-1930.

	Act or Order.	Offence.	Result.
1926	Public Health (Meat) Regulations, 1924.	For conveying meat by vehicle through the public streets without sufficient covering.	Carrier fined £25.
	Foot-and-Mouth Disease (Emergency Restrictions) Order of 1925.	For unlawfully moving animals in contravention of licence.	Fined £32 and £5 5s. costs.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Fined £8 and £5 5s. costs.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	For causing, directing or permitting the movement of animals in contravention of licence.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Do.	do.	Withdrawn.
	Public Health Act, 1875.	For exposing for sale meat which was unsound and unfit for human food.	Fined £6.
1927	Anthrax Order, 1910..	For not giving notice that he had under his charge a diseased animal.	Fined £2.
	Do.	For moving a diseased carcass..	Withdrawn.
	Do.	For cutting diseased carcass to cause effusion of blood.	Withdrawn.

PROSECUTIONS DURING PERIOD 1926-1930—Continued.

	Act or Order.	Offence.	Result.
1928	Midlands and North of England (Foot-and-Mouth Disease) (Controlled Area) Order of 1927.	For moving cattle without a licence.	Fined £2.
	Do.	do.	Fined £2.
1928	Milk (Special Designations) Order 1923.	For selling "Pasteurised" Milk without having a licence to sell same.	Fined 5s.
	Transit of Animals Order, 1927.	For failing to cleanse and disinfect motor float.	Fined £5.
1929	Sale of Food Order, 1921.	For not marking imported meat.	Fined £5.
	Importation of Animals Act, 1922.	Failing to move animals to premises specified in licence.	Fined £1 1s.
	Do.	Permitting Irish animals to enter part of the Market other than the authorised part.	Fined £1 1s.
	Do.	Moving cattle other than Imported cattle into the authorised Market.	Fined £1 1s.
	Do.	Removing the ear tags from animals.	Fined £1 1s. total costs £5 5s.
	Tuberculosis Order, 1925.	Failing to comply with a notice under Article 12 of the Order.	Fined £10 and 15s. costs.
1930	Transit of Animals Order, 1927.	For failing to cleanse and disinfect motor float.	Fined £10.
	Importation of Animals Act, 1922.	Moving pigs without a licence.	Fined £1 and £1 1s. costs.
	Milk and Dairies (Consolidation) Act, 1915.	Obstructing officers	Dismissed.

SECTION VI.

Pathological Laboratory Report.

I have pleasure in submitting the following review of the work carried out at the Municipal Laboratory and at Hope Hospital during the past five years. Previous to 1924 all the Public Health Bacteriological examinations for Salford, with the exception of examination of sputa for Tuberculosis, were carried out at the Public Health Laboratories, Manchester.

In July, 1924, the Salford Municipal Bacteriological Laboratory was established and equipped for all routine Public Health Bacteriological investigations exclusive of performance of Wassermanns.

Towards the end of 1926 a City Bacteriologist was appointed and the laboratory equipped and sanctioned by the Ministry of Health for the performance of Wassermanns; in addition, arrangements were made at the laboratory for the preparation of autogenous vaccines, preparing and reporting on sections of tissues removed at operations, and for the carrying out of most routine clinical pathological investigations.

On the 1st of April, 1928, an arrangement was made with the Salford Board of Guardians whereby the City Bacteriologist was to attend Hope Hospital daily at the Pathological Laboratory there, and carry out any examinations in clinical pathology required. The work at Hope Hospital has increased rapidly, and now takes up more than half of the City Pathologist's available time, including that of two whole-time technical assistants.

At present the staff employed at the Municipal Laboratory and at Hope Hospital is as follows:—

City Pathologist	{	Municipal Laboratory ...	{	Laboratory Steward.
			{	Two Laboratory Assistants.
	{	Hope Hospital Laboratory		Two Laboratory Assistants

The nature of the work can be gauged from the table of examinations made during 1930, and the following table shows the steady increase in work during the past five years. It also illustrates the growing importance of routine pathological laboratory investigations in connection with the diagnosis and prevention of disease.

1926—	No. of investigations carried out at Municipal Laboratory.	3,732
1927—	” ” ” ” ”	11,362
1928—	” ” ” and at Hope Hospital.	13,412
1929—	” ” ” ” ”	15,964
1930—	” ” ” ” ”	22,493

The marked increase from 1926 to 1927 is partly due to the fact that when the City Bacteriologist was appointed, arrangements were made for him to do all the routine diphtheria swabs for Ladywell Sanatorium.

The year 1930 shows a total of over 22,000 investigations; an increase of nearly 50 per cent on the previous year's total, and an increase of 100 per cent on that of 1927 when the City Bacteriologist was appointed. This marked increase for 1930 is mainly due to three items:—

- (1) A large increase in the number of swabs sent for examination for diphtheria.
- (2) Increase in the number of Wassermanns sent for examination.
- (3) A 100 per cent increase in the number of examinations carried out for Hope Hospital, mainly at the laboratory there.

As pointed out in previous reports, the relative number of investigations made at Hope is small, but the majority of these are time consuming, as each requires individual attention on the part of the pathologist.

The appended table gives a list of the examinations carried out at the Municipal Laboratory and at Hope Hospital during 1930.

PARTICULARS OF INVESTIGATIONS CARRIED OUT IN THE PATHOLOGICAL LABORATORY
DURING THE YEAR 1930.

NATURE OF INVESTIGATIONS.	Ladywell Sanatorium.	Hope Hospital.	Veterinary Department.	Tuberculosis Department.	Veneral Diseases Department.	School Medical Department.	Maternity and Child Welfare Department.	General Practitioners.	Salford Royal Hospital.	Totals.
Swabs for Diphtheria	9381	537	..	..	..	349	42	2036	..	12345
Virulence Tests of Organisms	29	8	..	..	..	2	..	1	..	40
Vaccines	26	9	..	..	..	..	..	4	..	39
Sputa	453	785	..	821	..	..	..	723	..	2782
Milk Inoculation .....	..	41	510	..	..	..	..	..	..	551
Milk Counts .....	..	..	199	..	..	..	..	..	..	199
Milk Microscopic for Tubercle .....	..	..	27	..	..	..	..	..	..	27
Widal	30	13	..	..	..	..	..	18	..	61
Swimming Bath Water .....	..	..	..	..	..	20	..	..	..	20
Bacteriological and Cytological Examinations of Urine ..	45	342	..	10	1	..	2	2	..	402
Faeces	45	15	..	..	..	25	..	8	..	68
Hair Ringworm	4	..	..	..	..	..	..	..	..	29
Blood-Anthrax .....	..	..	12	..	..	..	..	..	..	12
Wassermann .....	..	487	..	..	..	..	..	..	446	4598
Blood Cultures	6	26	..	..	..	..	..	29	..	32
Gonococci .....	..	21	..	..	..	..	25	..	..	75
Diagnosis Inoculations	1	34	..	7	1	1	..	..	..	44
Blood Films—Differential Count and Haemoglobin Estimation .....	..	35	..	..	..	..	..	1	..	36
Complete Blood Counts	1	81	..	1	..	..	..	1	..	84
Examination for Occult Blood .....	..	52	..	..	..	..	..	..	..	52
Autopsies .....	..	44	..	..	..	..	..	..	..	44
C.S.F.	4	94	..	..	..	2	1	..	..	98
Histological Sections .....	..	260	..	..	5	..	..	..	..	268
Test Meals .....	..	151	..	..	..	..	..	..	..	151
Pus, Pleural Fluid, Exudates, etc.	9	250	..	1	..	..	..	2	..	262
Blood Urea Estimation .....	..	47	..	..	..	..	..	..	..	47
Urea Concentration Tests .....	..	66	..	..	..	..	..	..	..	66
Blood Sugar .....	..	30	..	..	..	..	..	..	..	30
Disinfectants	4	..	..	..	..	..	..	..	..	4
Water from Milk Churns .....	..	..	5	..	..	..	..	..	..	5
Various .....	..	21	..	..	..	..	..	..	..	21
Totals	10038	3449	753	840	3399	399	70	3098	446	22492

SECTION VII.

Report relating to the City Analyst's Department.

During the year 1930, 3,290 samples were examined, of which 1556 were taken under the Food and Drugs (Adulteration) Act. Of these, 50 or 3.2 per cent were returned as adulterated. The remaining 1,734 samples were received from various departments of the Corporation or were examined in connection with investigations carried out during the year.

TABLE 1.

SAMPLES.	Number Examined.	Number Adulterated.		Percentage of Adulteration.
		Preservatives Only.	Other ways.	
Milk	1106	—	36	3·25
Cream	9	—	—	—
Butter	36	—	1	2·8
Cheese	32	—	—	—
Margarine	5	—	—	—
Lard	5	—	—	—
Beef Suet	6	—	—	—
Beef Dripping	1	—	—	—
Condensed Milk	11	—	1	9·1
Coffee and Chicory	2	—	—	—
Cocoa	15	—	—	—
Sugar	3	—	—	—
Jam	9	—	—	—
Jelly	5	—	—	—
Flour	10	—	—	—
Rice	5	—	—	—
Barley	5	—	—	—
Sago	1	—	1	100·0
Tapioca	2	—	—	—
Arrowroot	4	—	—	—
Cornflour	2	—	—	—
Baking Powder	5	—	—	—
Custard Powder	4	—	—	—
Egg Substitute	2	—	—	—
Eggs	3	—	—	—
Ground Ginger	6	—	—	—
Ground Cinnamon	6	—	—	—
Ground Mace	3	—	—	—
Tea	24	—	—	—
Salt	4	—	—	—
Pepper	10	—	—	—
Vinegar	1	—	—	—
Sausage	8	—	—	—
Potted Meat	4	—	—	—
Brawn	2	—	—	—
Salmon Creme	1	—	—	—
Tinned Fish	5	—	—	—
Tinned Beans	4	—	—	—
Tinned Peas	2	—	—	—
Tinned Fruit	5	—	—	—

TABLE 1—Continued.

SAMPLES.	Number Examined.	Number Adulterated.		Percentage of Adulteration.
		Preservatives Only.	Other ways.	
Dried Apricots	7	3	—	42·9
Dried Pears	1	—	—	—
Prunes.....	1	—	—	—
Sultanas	4	—	—	—
Candied Peel	5	1	—	20·0
Ground Almonds	4	—	—	—
Golden Syrup	3	—	—	—
Toffee	15	—	—	—
Chocolate	5	—	—	—
Cough Tablets	19	—	—	—
Olive Oil	10	—	—	—
Fruit Cordials	10	—	—	—
Whisky	14	—	4	28·6
Infant Food.....	1	—	—	—
Chemical Food	4	—	—	—
Cod Liver Oil and Malt Extract	5	—	—	—
Easton's Syrup	2	—	1	50·0
Compound Liniment of Camphor	2	—	1	50·0
Paregoric	5	—	—	—
Ammoniated Tincture of Quinine	4	—	—	—
Tincture of Iodine	5	—	—	—
Potassium Iodide	5	—	—	—
Borax	10	—	—	—
Cream of Tartar	10	—	—	—
Tartaric Acid	5	—	—	—
Seidlitz Powder.....	3	—	—	—
Epsom Salts	8	—	—	—
Lanolin	3	—	—	—
Lanolin Cream	2	—	—	—
Zinc Ointment	3	—	—	—
Sulphur Ointment	2	—	—	—
Boric Ointment.....	1	—	—	—
Starch	1	—	—	—
Castor Oil Pills	1	—	1	100·0
Turpentine	3	—	—	—
	1556	4	46	3·21

The total number of samples represents a purchase of 660 samples per 100,000 of the population. Of the total samples, 50, or 3.21 per cent, were returned as adulterated. Comparative figures for adulteration in previous years are given in Table 2.

TABLE 2.

COMPARATIVE PERCENTAGE OF ADULTERATION.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Percentage of Adulteration	8.7	5.6	6.9	4.3	7.7	4.5	4.3	4.7	3.0	3.21
Total Samples .	1364	1452	1388	1544	1396	1387	1452	1484	1491	1556
Formal Samples	623	653	644	775	752	765	744	733	727	598
Informal „	741	799	744	769	644	622	738	751	764	958
No. of Samples per 100,000 persons	570	607	577	641	572	563	593	593	596	622

It will be noticed that in the previous Table the samples are divided into two parts, named respectively "Formal" and "Informal" samples. "Formal" samples are those taken in accordance with Section 18 (1) of the Food and Drugs (Adulteration) Act, 1928. This Section enacts that "The person purchasing a sample of any article with the intention of submitting it to analysis shall, after the purchase has been completed, forthwith notify to the seller or his agent who sold the sample his intention to have it analysed by the Public Analyst, and shall then and there divide the sample into three parts, each part to be marked and sealed or fastened up in such a manner as its nature will permit, and shall—

- (a) If required to do so, deliver one part to the seller or his agent ;
- (b) Retain one part for future comparison ;
- (c) If he thinks fit to have an analysis made, submit one part to the analyst."

In the case of " Informal " samples the formalities of the Act are not complied with and usually the vendor is not aware that the sample has been bought for the purpose of analysis. Informal samples serve a very useful purpose, since they enable the Inspector to find out at what shops adulteration is being practised without causing annoyance to honest shopkeepers, whose chief objection to the taking of samples is that the Inspector takes up their time and counter space for the division of samples, and that his (the Inspector's action) excites the curiosity of the customers and may arouse their suspicions. No legal action under the Food and Drugs Act can take place with respect to an informal sample, but if the latter, upon examination, proves to be adulterated, a formal sample may, if necessary, be taken, and proceedings may then be instituted, which are generally taken under Section 2 of the Act. This makes it an offence to " Sell to the prejudice of the purchaser any article of food or any drug which is not of the nature, or not of the substance, or not of the quality of the article demanded by the purchaser." So far as chemical examination goes, informal samples are treated in exactly the same way as formal ones. The same care is necessarily bestowed on the analysis, since adulteration is generally detected by this means (except in the case of milk), and in cases where some particularly ingenious adultera-

tion has been practised, practically all the work is done on the informal sample, thus making the analysis of the subsequent formal sample a comparatively simple matter.

The year under review was notable for the first reading of a Bill to set up a standard for cheese and for the appearance of the jam standards of the Food Manufacturers' Federation. The cheese Bill seeks to define "cheese" as containing not less than 45 per cent of butter fat in the dry matters. An article containing less would come under the category of skimmed milk cheese and would have to bear a declaration showing the actual percentage of fat in it. This excellent measure met with no opposition on its first reading; unfortunately it seems likely that it will not pass into law for some considerable time.

The jam standards come under a different category. They are actually an agreement of the manufacturers of jam who are members of the Food Manufacturers' Federation (and this includes about 95 per cent of the manufacturers in the country) to conform to certain standards which have been agreed upon among themselves after consultation with the Society of Public Analysts. They have also agreed to a certain standardisation in the labelling of their products. Briefly, the following agreement has been reached:—

1. Standards are fixed for first quality ("Full Fruit Standard") and second quality ("Lower Fruit Standard") jams.

2. The standards are a minimum percentage of soluble solids and a minimum fruit content for each variety of jam.
3. No jams are to be manufactured below the agreed standards.
4. The use of citric, tartaric and malic acids is permissible where necessary, as is also that of permitted artificial colouring matter, without declaration on the label.
5. Added fruit juice or pectin. These may be used without declaration in first quality jams, but their presence in second quality jams must be declared in type of equal size to that employed for the name of the fruit used.
6. In mixed jams the fruit present in least amount must be named last in the label.

These standards may not be ideal in every respect; they do, however, represent a real advance. Moreover, the initiative in this case has been taken by the trade itself without waiting for legislation; as a result, both the manufacturer and the consumer should benefit.

Milk.

One thousand one hundred and six samples of milk have been received during the year. 36 of these have been certified as falling below the standards for fat (3 per cent) or solids-not-fat (8.5 per cent). Although the total number of adulterated samples is higher than

last year, the milk supply as a whole has been very satisfactory. During the first quarter of the year rather a large number of samples was received, which were slightly deficient of fat or milk solids; the first three months of the year, in fact, account for two-thirds of the total number of unsatisfactory milk samples for the whole year. The average percentage of fat in all samples received in January was 3.43, and this is the lowest average figure ever recorded in Salford for that month. An opinion was expressed to the writer at the time that, owing to the glut of potatoes, cows on the farms of Lancashire and Cheshire were receiving a greater proportion of this food than is usual. There was apparently some truth in this statement, but whether it explains the increase in the number of samples of poor quality (as it was held to do) the writer is not prepared to say. The year as a whole was characterised by an abundant supply of milk throughout the country at a very low wholesale price and serious adulteration in Salford was rare. It will be noticed that several of the adulterated samples were of bottled milk. The rapidly growing practice of delivering milk in bottles has somewhat increased the difficulty of investigating suspicious samples. One case that has been met with is that of the small dealer who bottles milk and may fail to keep the bulk adequately mixed during bottling. It is a fairly common experience in following up a suspected sample of bottled milk for all subsequent samples to prove genuine. Such considerations are, of course, no excuse for poor quality in milk. Just as the onus is on a milk dealer to keep his supply stirred during

a round so as to ensure that one customer does not get better than average quality at the expense of another, so all bottlers of milk ought to take steps to see that each bottle represents the well-mixed milk of a sufficiently large number of cows.

TABLE 3.

ADULTERATION OF MILK.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Number of Samples.	829	981	899	923	779	833	921	994	1028	1103	1100	1106
Percentage of Adulteration.	7.1	7.2	8.9	5.3	5.4	2.6	4.7	2.5	2.1	3.9	2.5	3.3

TABLE 4.

AVERAGE COMPOSITION OF ALL MILK SAMPLES, 1930.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January	113	12.40	3.47	8.93
February	107			
March	120			
April	92	12.40	3.47	8.93
May	79			
June	60			
July	39	12.49	3.63	8.86
August	147			
September	86			
October	104	12.70	3.74	8.96
November	97			
December	62			
TOTAL	1106	12.49	3.57	8.92

TABLE 5.
AVERAGE COMPOSITION OF STATION MILK SAMPLES, 1930.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January	26	12.47	3.57	8.90
February	29			
March	50			
April	26	12.38	3.49	8.89
May	12			
June	7			
July	21	12.47	3.65	8.82
August	99			
September	7			
October	34	12.81	3.85	8.96
November	13			
December	18			
TOTAL	342	12.52	3.64	8.88

TABLE 6.
AVERAGE COMPOSITION OF MILK SAMPLES OTHER THAN
STATION MILK, 1930.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids not-fat per cent.
January	87	12.37	3.43	8.94
February	78			
March	70			
April	66	12.41	3.47	8.94
May	67			
June	53			
July	18	12.51	3.63	8.88
August	48			
September	79			
October	70	12.66	3.69	8.97
November	84			
December	44			
TOTAL	764	12.48	3.54	8.94

Table 7 gives comparative figures from the reports of other Public Analysts, and shows the average quality of the milk samples in Salford for the period 1914 to 1930.

TABLE 7.

Place.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids- not-fat per cent.
Salford .....1930	1106	12.49	3.57	8.92
Birmingham .....1930	2408	12.48	3.62	8.86
Lancashire .....1930	3052	12.68	3.78	8.90
Kent .....1930	1728	12.63	3.66	8.97
Kingston-upon-Hull 1930	652	12.48	3.66	8.82
Average, Salford, 1914-1930	13960	12.45	3.63	8.82

In considering these average figures, as well as those in Tables 3, 4, 5 and 6, it should be remembered that all samples, both genuine and adulterated, are included. Where a supply is under suspicion it may be necessary to take a number of samples, and the general effect of this is to make the published figures for percentage adulteration (Table 3) higher, and the average figures for quality (Tables 4, 5, 6 and 7) slightly lower than the probable true figures for the milk supply of Salford as a whole.

It may be remarked in this connection that no prosecution is instituted except after the most rigorous inquiry, and that a summons issued in respect of one sample may have necessitated the taking of a dozen or more samples. These are required to eliminate innocent persons who may have handled the milk at the various stages in its journey from the cow to the consumer, and

to rule out the possibility of the deficiency being due to natural causes. Nearly every case of a suspected supply involves your Inspector in a journey to the farm, where the cows are milked in his presence, the quality of the so-called "Appeal to the cow" sample, taken under conditions which are as nearly as possible identical, being compared with that of the doubtful sample procured in the first instance.

The samples include 44 taken at Ladywell Sanatorium, 11 at the Maternity Home, 144 at Hope Hospital, and 20 at Nab Top Sanatorium. The average quality of these samples was :—

	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
Ladywell Sanatorium	12.73	3.75	8.98
Maternity Home	12.78	3.87	8.91
Hope Hospital	12.23	3.43	8.80
Nab Top Sanatorium	12.60	3.58	9.02

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

TABLE 8.

No. of Sample.	Nature of Adulteration.	Action taken.	Remarks.
1901	Deficient 10.0% fat.	None.	Further samples genuine.
1969	Deficient 6.6% fat.	Fined £2 each in respect of samples 1983, 1984 and 1985—£6 in all.	Wholesale dealer.
1981	Deficient 10.0% fat.		
1983	Deficient 3.3% fat.		
1984	Deficient 6.6% fat.		
1985	Deficient 10.0% fat.		
1988	Deficient 10.0% fat.		

TABLE 8—Continued.

No. of Sample.	Nature of Adulteration.	Action taken.	Remarks.
2019	Deficient 3.3% fat.	None.	Farmer.
2027	Deficient 16.6% fat.	Fined £6.	See 1983 above.
2045	Deficient 13.3% fat.	Cautioned.	Bottled Milk Retailer.
2059	Deficient 6.6% fat.	} None.	Farmer — deficiency probably due to natural causes.
2085	Deficient 3.3% fat.		Bottled milk from retailer—See 2126, 2156-7.
2122	Deficient 30.0% fat.		Wholesaler supplying 2122.
2126	Deficient 3.3% fat.	} None.	Farmer — See 2059.
2129	Deficient 3.3% fat.		Farmer supplying 2126.
2133	Deficient 6.6% fat.		Further samples genuine.
2139	Contained 8 parts per million formaldehyde.	None.	Farmer supplying 2126.
2156	Deficient 16.6% fat.	{ Fined 10s. in each case—£1 in all.	Famer — deficiency probably due to natural causes.
2157	Deficient 10.0% fat.		Wholesale dealer.
2178	Deficient 2.3% solids-not-fat.	} None.	
2179	Deficient 3.3% fat.		
2207	Deficient 10.6% solids-not-fat.	Supply kept under observation.	
2244	Deficient 3.0% fat.	None.	Farmer — See 2059.
2277	Deficient 3.0% fat.	} Cautioned.	Contractor supplying Institutions.
2283	Deficient 16.6% fat.		Further samples genuine.
2308	Deficient 3.3% fat and 2.3% solids-not-fat.	} Supply kept under observation.	Farmer — further samples genuine.
2310	Deficient 6.6% fat.		Farmer supplying Institution.
2489	Deficient 5.5% fat.	None.	Retailer.
2518	Deficient 6.6% fat.	Caution.	
2563	Deficient 3.0% fat.	Supply kept under observation.	
2640	Deficient 6.6% fat.	} None.	Further samples genuine.
2641	Deficient 13.3% fat.		Deficiency due to natural causes.
2700	Deficient 3.5% solids-not-fat.		Further samples genuine.
2915	Deficient 1.2% fat.	} None.	
2947	Deficient 3.3% fat.		
3154	Deficient 3.3% fat.	None.	

Samples Nos. 2019, 2059, 2085, 2129, 2178, 2179 and 2244. These were all cases of slight deficiencies of fat or solids-not-fat occurring in the early part of the year, and to which reference has already been made. The supplies were kept under observation and gradually improved in quality. While such milks are not very satisfactory from the consumer's point of view, it would have been impossible to take action in the present position of the law. This is further considered in Part 2 of this report.

Sample No. 1901 was a farmer's milk. It was deficient of fat to the extent of 10 per cent, but as samples taken at the same time from four other churns were genuine, as well as subsequent samples, no action was taken.

Samples Nos. 1969, 1981, 1983-5, 1988, 2027. The first two samples were taken at shops supplied by the same wholesaler. Formal samples Nos. 1983-5 were therefore obtained of the wholesaler's milk and proved to be 3.3, 6.6, and 10 per cent respectively deficient in fat. Nos. 1988 and 2027, taken subsequently from shops supplied by this wholesaler, were also deficient. The wholesaler was summoned in respect of the three formal samples and at the Salford Police Court fined £2 in each case ; £6 in all.

Sample No. 2045. This was bottled milk from a retailer. Samples from the wholesaler supplying him were taken on delivery and proved to be genuine. The retailer was cautioned.

Samples Nos. 2122, 2126, 2133, 2156 and 2157. A sample (No. 2122) of bottled milk from a retailer was

found to be 30 per cent deficient of fat. The supply of the wholesaler No. 2126 was also slightly deficient. Samples Nos. 2133, 2156 and 2157 were then taken on delivery and represent the milk as supplied by the farmer. Of these, the first was 6.6 per cent and the other two each 16.6 per cent deficient of fat. The farm was visited and "Appeal to cow" samples proved to be genuine. Summonses were issued in respect of samples Nos. 2156 and 2157, and although a chain of evidence was put forward to show that the milk had not been tampered with, the farmer was fined 10s. in each case ; £1 in all.

Sample No. 2139. This milk was found to contain a small quantity of formaldehyde. The presence of preservatives of any kind is, of course, forbidden in milk, but in view of the small amount (8 parts per million) further samples, Nos. 2166 and 2193, were subsequently taken on different occasions, and as these were found to be free from formaldehyde, proceedings were not instituted.

Sample No. 2207. Warm milk in bottles is supplied to many of the schools in the district, the scholars paying one penny per day. Informal samples of this milk had been taken from time to time, and this was such a sample. A formal sample taken the next day proved to be genuine. This was an isolated case and was not believed to be fraudulent adulteration. After a visit to the dairy by your Inspector, the contractor was cautioned.

Samples Nos. 2277 and 2283. These were two of fourteen samples taken on one day of the milk supplied to Hope Hospital. Following a cautionary letter, the

contractor waited upon the Medical Officer of Health and Public Analyst. Though unable to account for the deficiencies in fat, he promised to spare no effort to ensure a supply of high quality in the future.

Samples Nos. 2308, 2310 were two out of nine samples all taken at the same time and from the same farmer. The remaining seven samples were all genuine; subsequent samples also proved to be of good quality and no action was taken.

Sample No. 2489 was one of eight samples of a farmer's milk taken on the same day. The remaining seven samples were of good quality and no action was taken.

Sample No. 2518 was obtained by your Inspector on delivery at the Maternity Home. He subsequently visited the farm and found a big disparity in the intervals between morning and evening milkings, which would probably be sufficient to explain the deficiency in this case. The quality of the evening milk was well above the average, and arrangements were made for the Maternity Home to receive evening milk in the future. Further samples were taken and found to be of very satisfactory quality.

Sample No. 2653 was a case of slight deficiency of fat. The retailer in question was supplied by a dairyman from whom several samples of genuine though somewhat poor quality were obtained. Both supplies were kept under observation for a time with satisfactory results.

Samples 2640 and 2641 (deficient of 6.6 and 13.3 per cent of fat respectively) were bought on a Monday.

Further samples were taken the following day and proved to be genuine. This supply was watched for a considerable time, and while the milk obtained on Mondays was usually below that of the rest of the week in quality, no further samples fell below the standard.

Samples Nos. 2700, 2915, 2947, 3154. These were all cases of very slight deficiencies. In each case a number of samples was taken at the same time and the deficiency occurred in one sample only. All four supplies were kept under observation, and satisfactory subsequent samples received.

Table 9 contains a list of samples other than milk found to be adulterated, together with the action taken in each case.

TABLE 9.

No. of Sample.	Description.	Nature of Adulteration.	Remarks.
2020	Castor Oil Pills	Deficient in castor oil	Manufacturers agreed to alter label and descriptive matter.
2391	Compound Liniment of Camphor.	Deficient 30% ammonia ..	Vendors agreed to destroy all stocks.
2392	Easton's Syrup ..	Deficient 20% quinine sulphate.	
2587	Condensed Milk	Label offence	Sample was of foreign manufacture and facts were communicated to Minister of Health.
2715	Sago	Consisted of tapioca	Supplied on demand for sago.
2721	Dried Apricots	Contained 3000 parts per	Packers agreed to withdraw all adulterated apricots from sale.
2734		Contained 2700 million	
2735		Contained 2700 SO ₂	
2787	Butter	Contained 16.7% water	Informal sample. Formal sample genuine.
3298	Candied Peel	Contained 412 parts per million SO ₂	Formal sample genuine. Caution.
3420	Whisky	Contained 17.8%	Informal sample.
3421		Contained 9.2%	Informal sample.
3426		Contained 19.2% added	Fined £10.
3427		Contained 6.6% water.	Fined £5.

Condensed Milk.

Of the eleven samples of condensed milk received, ten complied with the Regulations both as to the quality and the amount of the contents of the tin and its labelling. One sample—No. 2587—bore a label giving directions for dilution for infant feeding which was not in accordance with the Regulations, since no mention was made of the fact that the fluid so produced would not be of equivalent composition to milk. Since this brand was manufactured abroad, the facts were communicated to the Minister of Health, as required by Section 7 of the Regulations.

Butter and Margarine.

Thirty-six samples of butter were submitted by your Inspector, which, with one exception, were all genuine. This informal sample contained excess of water—16·7 per cent as against 16 per cent permitted by the Food and Drugs Act—but as the formal sample subsequently procured from the same vendor contained 15·2 per cent, no action could be taken. In the samples examined the Reichert Wollny number of the fat varied from 25·3 to 32·0. Five samples of margarine were all genuine.

Lard and Cheese.

Five samples of lard, six of beef suet, and one of beef dripping were all found to be genuine. Thirty-two samples of cheese were also passed as genuine. The first reading of the cheese Bill has been alluded to (ante page 280). The necessity for such a measure has been stressed by a number of cases in Salford in past years, and the wide variation in the product is well brought out by the

following samples purchased in April and May. Your Inspector in each case asked simply for "cheese." The samples are arranged in order of the fat content of the original sample.

Sample No.	Fat per cent.	Water per cent.	Fat as a percentage of the dry matters.	Price per pound.
				s. d.
2441	46.0	33.2	69.0	1 2
2439	45.0	28.0	62.5	1 2
2425	43.0	30.7	62.0	1 0
2457	41.0	31.2	59.6	1 4
2417	40.0	31.3	58.2	0 10
2455	38.0	32.2	56.0	1 0
2454	36.0	40.8	54.1	1 2
2465	33.0	37.3	53.6	1 0
2440	33.0	40.8	54.2	1 0
2480	32.5	40.0	54.2	1 3
2438	32.0	31.5	46.7	1 2
2458	32.0	41.5	54.7	1 4
2419	31.0	40.7	52.3	1 0
2416	28.0	41.4	47.7	1 0
2482	25.0	46.9	47.1	0 11
2420	23.0	46.5	43.0	1 4
2436	20.5	46.0	38.0	0 10
2437	20.0	42.8	35.0	0 10
2418	19.0	48.3	36.3	0 10
2456	17.0	49.8	33.8	0 10

It is interesting to see that while one may pay 1s. 4d. per pound for a cheese containing but 23 per cent of fat (No. 2420), it is yet possible to purchase one with 40 per cent at a price of 10d. per pound (No. 2417). The second cheese is thus about treble the value for money of the first. Under present conditions all the above cheeses must be classed as "genuine." If the proposed

Bill became law those cheeses below the line in the Table would fall below the standard, and would have to have the percentage of fat declared.

Dried Apricots.

Samples Nos. 2721 and 2734 were informal and formal samples taken from the same dealer and contained respectively 3000 and 2700 parts per million of sulphites expressed as sulphur di-oxide. The amount permitted by the Public Health (Preservatives in Food, etc.) Regulations is 2000 parts per million. A further sample purchased later also contained 2700 parts per million. During the past two years the average amount of sulphites found in dried apricots has been about 500 parts per million. There is no doubt that such excessive quantities of "preservative" are really the result of attempting to improve the appearance of an inferior article by bleaching. An interesting experiment was made to see how much sulphite remained after the fruit had been prepared for the table in the ordinary way (soaking overnight and boiling for 45 minutes with water and sugar). After such treatment 70 per cent of the original amount still remained. On the instructions of your Committee, the London agents of the packers were communicated with. They agreed to withdraw all the consignment from sale, and to recall any portions of it that had already reached the hands of retailers.

Candied Peel.

Sample No. 3298 contained 412 parts per million of sulphites, the amount allowed by Regulation being 100 parts. A subsequent formal sample contained 37

parts per million, and was, of course, genuine. Both these samples were bought in December. Further formal samples bought in January, 1931, contained 128 parts per million. In reply to an enquiry, the wholesalers stated that owing to shortage due to Christmas they had bought supplies where they could and from firms with whom they did not usually deal. This statement seemed to be borne out to some extent by the results obtained from the three samples, and on their promising to use the utmost care in future, the case was met with a caution.

Whisky.

Samples Nos. 3420 and 3426 were informal and formal samples from the same vendor and contained 17·8 per cent and 19·2 per cent excess of water. Nos. 3421 and 3427 were similar samples from another vendor containing excess water to the extent of 9·2 per cent and 6·6 per cent. The defence was in each case broadly the same—that the vendor had been supplied with whisky stronger than 35 degrees under proof, and had relied on his own judgment in adding the water. In each case the judgment had erred on the side of liberality. The first vendor was fined £10 and the second £5 at the Salford Police Court.

Castor Oil Pills.

Sample No. 2020. Though these pills were bought as Castor Oil Pills they were actually labelled “Compound Castor Oil Pills,” the word “compound” being in comparatively small type. They were found to contain a number of vegetable laxatives, chiefly aloes, and castor oil amounting at the most to 5 per cent. Such

pills cannot satisfactorily be described even as COMPOUND Castor Oil Pills. The vendor, a small shopkeeper, could not reasonably be expected to know anything of the composition of such an article, and the makers were accordingly interviewed, when their representative stated that similar pills were being made by several other wholesale firms. It was agreed to receive a deputation from the Wholesale Association, which, it is believed, includes in its members every maker of this type of pill in the country. The opinion was expressed to the deputation that to label such pills as "Castor Oil Pills" or "Compound Castor Oil Pills" amounted to a misdescription, and finally they agreed on behalf of the Association to the use of the following:—

"Compound Laxative Pills," "Laxative Pills,"
"Compound Aperient Pills," or "Aperient
Pills,"

to be followed in each case by the statement "each pill contains (the appropriate amount) of castor oil."

It was further agreed that whichever of the above descriptions was used should be in type at least as prominent as the words "Castor Oil" in the label and descriptive matter.

Compound Liniment of Camphor. Easton's Syrup.

Sample No. 2391, compound liniment of camphor, was deficient of ammonia to the extent of 30 per cent. Sample No. 2392, of Easton's Syrup, was deficient of 20 per cent quinine sulphate. It was discovered that the shop from which these were purchased had been sold the same week to a large multiple shop firm, whose

manager informed your Inspector that he had found large stocks of certain medicines in hand. Examination of the stock solutions from which the Easton's Syrup had been made showed that precipitation had occurred. The manager destroyed his stock both of quinine sulphate solution and compound liniment of camphor, and the case was met with a caution.

Miscellaneous Samples.

Sunlight Tests	1516
Rainwater	47
Milk	89
Breast Milk	18
Infant Food	3
Meat Extract	4
Tea	1
Pork Pie	1
Egg Flour	1
Vinegar	2
Croton Oil.....	1
Anise Oil	1
Lanolin	1
Medicine	2
Soap	20
Paint	6
Disinfectant	1
Coke	1
Kettle and Deposit.....	1
Shawl	1
Fur Collar	1
Sewage Effluent	6
Police Samples	10

1734

These samples were received from the Health Department, Electricity Department, City Engineer's Department, the City Police, and from private persons. The police samples consisted of exhibits in a charge of arson, and three samples of carbolic disinfectant. The shawl was alleged to have been damaged by the Disinfecting Station, but the stains on it were of a sugary nature, which pointed to their being due to food or medicine spilt on it. The fur collar was examined in connection with a case of dermatitis, and was found to have been dyed with a reagent containing para phenylenediamine (a well-known cause of dermatitis). The kettle and deposit in it were received from the Electricity Department, with an enquiry as to whether the deposit, which had appeared as a result of using the kettle, was of a harmful nature. It consisted of copper, copper oxide and traces of nickel. The remaining samples do not call for special mention.

Strength of Sunlight.

The miscellaneous samples described as "strength of sunlight test" were taken in connection with an investigation begun in 1926 and continued during 1927, 1928, 1929 and 1930, with regard to the comparative strength of the sunlight received at four different stations, viz.: Regent Road, Ladywell Sanatorium, Drinkwater Park, and Nab Top Sanatorium, Marple.

In the case of the first-named station, the tests were carried out on the roof of the Health Department, and in the other three cases in the grounds of the institutions named. The test consisted in the exposure

of a solution of potassium iodide acidified with sulphuric acid in a two-ounce bottle in the presence of air. Free iodine is liberated by the action of the sunlight, and the amount found is proportional to the light received. The figures given in the following table represent milligrams of iodine. The monthly totals for 1930 are given below.

Month, 1930.	Regent Road.	Nab Top		
		Sanatorium, Marple.	Ladywell Sanatorium.	Drinkwater Park.
January	61.3	83.5	73.2	73.4
February	64.8	112.2	77.8	67.9
March	111.0	138.3	133.4	122.9
April	138.9	176.9	143.0	154.9
May	197.5	223.6	204.5	202.2
June	215.2	273.7	250.3	233.8
July	196.5	220.7	211.3	214.2
August	157.8	131.5	149.8	118.7
September	174.8	185.0	196.8	180.3
October	150.3	156.7	153.8	133.2
November	78.0	114.7	83.2	80.8
December	43.6	78.2	54.3	59.9

It will be seen that the figures for Regent Road are, in general, lower than those for the other three stations. This gives some idea of the smoke blanket which hangs over the centre of the City. Other factors such as ground mist cannot, of course, be taken into consideration, but, in general, the figures show that the active amount of sunlight received in the centre of the City is considerably less than the amounts received at the outlying stations.

It is well known that this test is only an approximate measure of the strength of sunlight. Since the experiments are conducted in glass bottles, it takes no account

of the extreme ultra-violet part of the spectrum which is present in bright summer sunlight. In the past year it has also been discovered that the purity of the potassium iodide used affects the result to a considerable extent. During one week in July, the experiment at the Regent Road Station was conducted in quadruplicate in the following manner:—

Two qualities each of sulphuric acid and potassium iodide were used, the first being ordinary “pure” chemical reagents (which were of excellent quality), and the second being the finest quality obtainable from the manufacturers of fine chemicals. From these, four test solutions were prepared each day and exposed side by side, with the following results:—

	Milligrams of iodine in a week.
1. Purest potassium iodide and purest acid	33.2
2. Ordinary potassium iodide and purest acid	39.7
3. Ordinary potassium iodide and ordin- ary acid.....	40.3
4. Purest potassium iodide and ordinary acid	34.6

In this experiment it will be seen that the greatest variation is caused by the quality of the potassium iodide, the results of Nos. 1 and 4 falling in one class, and those of 2 and 3 in another.

Chemical examination of the potassium iodide revealed practically no difference, each sample being of

high quality. Titration of the "ordinary" sample pointed to the presence of a little potassium chloride (about 0.5 per cent), though this was not indicated by qualitative test. The lesson to be learned is that only potassium iodide of the highest purity should be used in this test. There is no doubt, however, that the figures taken for a period represent a good comparative measure of the sunlight received at the different stations.

Atmospheric Pollution.

The work of examining the deposit obtained in the special gauges placed at various points in the City, which has been described in the reports for the last five years, has been continued. At the present time the standard gauge is situated in Peel Park, and similar types of gauges are situated in the centre of the recreation ground in Regent Square and in the grounds of the Corporation Sanatorium at Marple, Cheshire, and Ladywell Sanatorium, Pendleton.

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 kilometre to English 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 contamination of the Ladywell area is rather less than that of the two City

areas, whilst, as was to be expected, the atmosphere at Marple is, comparatively speaking, "pure."

In order that comparison may be made with other districts, the average figures are given for the gauge giving the greatest and least deposits in the country. These figures are only available at present for the period April, 1927, to March, 1928. The gauge giving the highest deposit is that at City Road, Newcastle, whilst the gauge showing the least deposit for which complete figures are available is West Heath, Birmingham.

	Salford : Peel Park.	Salford : Ladywell Sanatorium.	Salford : Regent Square.	Marple : Salford Sanatorium.	Newcastle : * City Road.	Birmingham * West Heath.
Rainfall in Millimetres	75.31	71.19	91.70	89.99	73.0	82.0
Tar, Carbonaceous other than tar.	0.50 2.10 5.11	0.28 1.26 2.01	0.69 3.00 4.54	0.14 0.79 0.58	0.66 9.75 11.87	0.04 0.42 0.97
Ash.						
Loss on ignition. } Insoluble Ash. } Matter.	1.21 2.55	0.89 1.60	1.23 2.05	0.85 0.97	2.20 5.25	0.96 1.80
Soluble Matter.	3.76	2.49	3.28	1.82	7.45	2.76
Total Solids	11.47	6.04	12.51	3.33	29.73	4.19
Sulphates.	1.06	0.81	1.12	0.60	2.50	0.87
Chlorine.	0.85	0.88	1.15	0.63	0.90	0.32
Ammonia.	0.03	0.03	0.09	0.04	0.19	0.06

* These figures are computed from April, 1927, to March 31st, 1928.

† Average for ten months.

PART 2.

It is proposed in this part of the Report to review the work of the Department for the past five years. No purpose would be served by a detailed survey of individual cases of adulteration, as these may be found in the Annual Reports for respective years of the period. What is intended is rather to make a general survey of the types of adulteration encountered, to draw certain broad conclusions, and to make suggestions for the remedy of any general defects in our legislation which may become apparent during the course of such a survey.

Seven thousand four hundred samples of food and drugs have been examined in the past five years, of which 292, or 3.93 per cent, have been certified as adulterated. The adulterated samples consisted of:—

	Number Adulterated.	Total Number Examined.
Milk	154	5331
Cream	2	53
Condensed Milk	2	31
Butter	1	217
Cheese	6	158
Malted Milk	3	6
Tea	3	86
Cocoa	1	54
Jam	29	65
Lemon Cheese	8	11
Sweets and Toffee	9	64
Sausage	5	61
Meat and Fish Rolls	7	8
Diabetic Flour	2	3

	Number Adulterated.	Total Number Examined.
Custard Powder	1	27
Sago	1	1
Dried Fruit	3	12
Candied Peel	1	5
Eggs	2	18
Spirits (Whisky, etc.)	12	67
"Rum and Coffee"	1	1
Drugs and Medicines	39	497

In connection with these figures several interesting facts are to be noticed :—

1. Milk samples account for more than half of the total number of adulterated samples.
2. Offences under the Preservatives Regulations amount to 21, about 7 per cent of the total adulteration.
3. Consideration of each individual adulterated sample has shown that 64 cases can be classed as misdescription. By this is meant false or exaggerated claims by means of label or advertisement. This is a very large proportion. Excluding milk samples, to which this class of offence cannot well apply, it accounts for very nearly half of the unsatisfactory samples received during the period. Detailed attention is given to this question later in this Report.
4. An attempt has been made, from information acquired during the course of the investigations or during prosecution proceedings, to determine

the incidence of the adulteration. This is classified in the following table:—

Offences traced to vendor.....	49
Offences traced to producer or wholesaler	154
Cases where the vendor and producer were the same person or firm.....	5
Miscellaneous: including doubtful cases, deficiencies of slight nature, etc.....	84
	—
	292
	—

It need hardly be said that it is not intended that the above figures should be interpreted as showing a different standard of honesty or morality among two large classes of the community, or that they can be used to this end. The only inference that is made is that they do show, in conjunction with the facts noted in paragraph 3 above, something of the type of present-day food offences, and suggest what kind of legislation may be required in the near future.

Milk.

When it is seen that out of 292 samples which have been certified as adulterated in Salford during the past five years, 154, or over half, have been milk, it is obvious that some detailed consideration of milk and its adulteration is called for. Speaking generally, the relatively large number of adulterated milk samples may be ascribed to the fatal ease with which it is possible to add water to milk or to remove cream from it by skimming.

Unfortunately for all who have to deal with milk—farmers, dealers, consumers and analysts,—it is a product which is liable to fairly wide natural variations in its

composition. That is to say, the unadulterated fluid produced by the conscientious milking of cows will contain percentages of fat and of milk solids other than fat which will vary according to a large number of factors. Some of these are: the health of the cow, time of the year, the interval which has elapsed since the last milking, the age and breed of the cow, and the period since she was last calved. These are by no means all, and it may well be considered impossible at first sight to fix any standards for such a product. It has to be remembered, however, that practically all milk that is sold is not the product of one cow, but of a herd, and that among a number of cows certain of these factors will tend to be cancelled out, e.g., health, age, breed, period of lactation. In 1900 a Committee appointed by the Board of Agriculture met to consider the subject and as a result the Sale of Milk Regulations were passed in 1901, which enacted that when a sample of milk contained less than 3 per cent of fat it should be presumed to be skimmed, and when it contained less than 8.5 per cent of milk solids other than fat it should be presumed to be watered, unless the vendor could prove to the contrary.

The main variation in the genuine milk of a herd is a seasonal one. It is well known that there is a slight drop in the percentage of fat in the months of May and June, due to the change in diet and conditions when the cows are put out to grass in the spring. The following Table shows the change in composition from month to month. It gives the average percentages of fat and solids-not-fat, month by month, of all the milks analysed in your laboratories from July, 1914, to December, 1930.

AVERAGE MONTHLY VARIATION IN MILK, 1914 TO 1930.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January	1411	12.44	3.60	8.84
February	1142	12.29	3.54	8.75
March	1319	12.33	3.56	8.77
April	1164	12.38	3.57	8.81
May	1091	12.27	3.56	8.71
June	1191	12.30	3.46	8.84
July	872	12.30	3.53	8.77
August	1090	12.40	3.64	8.76
September	1194	12.61	3.74	8.87
October	1439	12.79	3.87	8.92
November.....	1181	12.76	3.86	8.90
December	866	12.43	3.59	8.84
1914 to 1930 ..	13960	12.45	3.63	8.82

By the courtesy of the County Analyst I am able to append a similar Table for the County of Lancashire for the years 1910 to 1930.

Month.	Number of Samples.	Total Solids per cent.	Fat per cent.	Solids-not-fat per cent.
January	3900	12.55	3.63	8.92
February	4980	12.49	3.61	8.88
March	5142	12.48	3.60	8.88
April	4387	12.54	3.63	8.91
May	5062	12.50	3.59	8.91
June	4803	12.47	3.54	8.93
July	4499	12.40	3.57	8.83
August	2791	12.51	3.65	8.86
September	4714	12.69	3.77	8.92
October	5385	12.81	3.88	8.93
November.....	5346	12.75	3.82	8.93
December	5037	12.65	3.74	8.91

These figures seem to show that the seasonal variation is not a very large one. The drop in fat content in May and June amounts only to 0.1 per cent; throughout the whole year the figures are well above the limits of 3.0 per cent of fat and 8.5 per cent of other solids.

Another well-known factor which influences the composition of milk is the breed of the cow. Generally, the breed which gives the poorest milk gives the greatest quantity. Droop Richmond gives the following figures, which may be taken to represent the extremes of quality due to breed:—

	Fat per cent.	Other solids per cent.
Jersey cows	5.6	9.2
Frisian cows	3.0	8.5

Herds consisting exclusively of Frisian cows are hardly ever encountered in this country, and it may therefore be held that the average herd may be expected to give milk well above the figures given for Frisians above.

Returning now to the Sale of Milk Regulations, it is to be remembered that the standards laid down are "presumptive" only. That is to say, that should a sample of milk fall below these standards it is "presumed" to be not genuine. It is open to the defence to prove in a court of law that such a sample was, however, genuine. This is important, especially in view of the case of *Hunt v. Richardson*, where it was decided on appeal that milk is genuine if it is sold as it comes from the cow. In the following year *Grigg v. Smith* was decided. In this case the farmer admitted that the cow (the sample came from

one cow only) was not completely milked, stating that he left some milk in the cow for her calf. It is well known, and was admitted in this case, that the last milk drawn from the cow would contain a higher percentage of milk fat than that drawn earlier. Yet, in view of the previous decision in *Hunt v. Richardson*, the Court of Appeal felt bound to dismiss the case against the farmer for selling milk deficient in fat. In giving his decision, Mr. Justice Atkin said, "I agree that the appeal should be dismissed. I only hold so because of the decision of the majority of the Court in *Hunt v. Richardson*. I will only say that the result of these cases seems to be that the farmer in distributing his milk is entitled by law to give a preference to his calves over the babies of his customers." Thus, the effect of these two cases is that, although milk may fall below the standards laid down, it is genuine if the customer received it as it came from the cow, even if (as in the first case) the cows had knowingly been fed so as to keep up the quantity at the expense of the quality of the milk yielded, or (as in the second case) had not been properly milked. In other words, the customer is compelled by law to receive whatever fluid the cow gives or can be made to give.

Nevertheless, the majority of cases where milk falls seriously below the standard are instances, not of the above type, but simply where water has been added or fat abstracted. The following are the writer's conclusions on this subject:—

1. The consumer is entitled to expect some minimum standard of quality.

2. There is no difficulty, given herds of proper size and composition, and proper conditions of feeding and milking, in producing milk which will at all times contain considerably over 3 per cent of fat and 8.5 per cent of solids-not-fat.
3. These standards should be made absolute instead of presumptive; that is to say, it should be an offence under any circumstances whatever to sell milk containing less than 3 per cent of fat or 8.5 per cent of solids-not-fat. At the same time, it should still remain an offence to sell milk containing added water or from which the fat has been abstracted.

Preservatives.

In 1923 a Departmental Committee was set up by the Minister of Health to enquire into the whole question of preservatives in food, and a report on the subject was issued in 1924. As a result, the Minister of Health made a number of Regulations under the Public Health Act in 1925, 1926 and 1927, which are known as the Public Health (Preservatives in Food) Regulations. These began to operate in 1927.

It is admitted by nearly everyone who has anything to do with foodstuffs that these Regulations mark a real advance in our legislation. Public Analysts and other advocates of pure food feel that the consumer has gained by the limitation of the amount and kind of preservative, and the dealer and trade now know exactly where they stand—whether a preservative is allowed at all in any

given article, and if so what, and to what amount. From some members of the latter class has come a certain amount of grumbling. In particular, determined efforts have been made to get official sanction for the use of boric acid in cream, culminating in deputations to the Scottish Office and the Ministry of Health and questions in Parliament to the Minister of Health. In reply to these the Minister stated that after careful consideration of the representations he was not prepared to suspend or modify the Regulations. The representations were, of course, that it is impossible to keep cream without the addition of preservative, and that the trade was being killed by competition with artificial cream substitutes and tinned cream (imported mainly from Holland). A sufficient reply seems to be that even before the Regulations were made a considerable proportion of cream reached the consumer without it being necessary to add preservative. At the present time cream is coming from the West of Ireland and being sold in Manchester and Salford perfectly fresh and unpreserved two and three days afterwards. It is also interesting to remember that in 1899 a committee appointed by the Local Government Board heard exactly the same arguments with regard to milk, some vendors stating that it would be impracticable to supply large towns without the use of preservative. This the committee were unable to believe; preservatives in milk were forbidden, and it is safe to say that to-day not one sample of milk in a million contains preservative. This appears to be one of the cases where a trade has to be compelled by law to improve its methods for the advantage of the consumer.

It is interesting to notice that from Germany comes the news of an entirely new range of preservatives. These are esters of para hydroxybenzoic acid, a derivate of the preservative benzoic acid, which is allowed in limited amounts in certain foodstuffs in this country. Extensive claims are made for these substances, which are being manufactured on a large scale in Germany. They are stated to be entirely free from irritant properties, and to be from two to four times less toxic than benzoic acid. By their discoverer they are advocated as preservatives for jams, pulped fruit, fruit juices, wine, malt extract, beer, lemonade, fish preserves, pharmaceutical preparations, and many other articles. Time will show whether these claims are justified, but in the writer's opinion their use in this country would be illegal, even in those articles where benzoic acid and benzoates are permitted.

Present Position of the Law Relating to Food and Drugs.

So far as the Public Analyst is concerned, the law relating to food and drugs is embodied in the following Acts and Regulations :—

The Food and Drugs (Adulteration) Act, 1928.

Sale of Milk Regulations, 1901 and 1912.

Sale of Butter Regulations, 1902.

Milk and Dairies (Amendment) Act, 1922.

Condensed Milk Regulations, 1923 and 1927.

Dried Milk Regulations, 1923 and 1927.

Public Health (Preservatives, etc., in Food)

Regulations.

The first-named Act deals with food and drugs in general and the remainder with special articles. The Food and Drugs (Adulteration) Act, 1928, is simply a re-enactment and consolidation of the previous Sale of Food and Drugs Acts, 1875, 1879, 1899, the Margarine Act of 1877, and the Butter and Margarine Act of 1907. So that although the main Act of our food and drugs code bears a date so recent as 1928, actually it is old legislation. The contention is here advanced that in some respects this Act is out of date, since it is inadequate to deal with modern aspects of food adulteration and misdescription, and that new legislation is urgently needed to this end. In particular, the most important alterations that are required in existing law are :—

1. A more stringent and positive definition of what constitutes adulteration to replace the present definition contained in Section 2 of the 1928 Act (see page 279 ante).
2. The setting up of standards for a number of articles, and the provision of powers whereby standards for any article may in future be defined by Regulation.
3. Considerable extension of provision dealing with labelling, description and advertisement.

Some account will now be given of the reasons upon which these opinions are founded. It may be noticed in passing that when, in 1929, the Union of South Africa found it necessary to pass a new Food, Drugs and Disinfectants Act (described by the Minister who introduced it as "long overdue"), it was stated that one

of the reasons why adulteration was so rife was that under the old Acts no power existed whereby standards could be laid down, or false description or labelling prevented. These old Acts, like the Act at present in force in this country, were based largely upon the British Sale of Food and Drugs Act, 1875.

FOOD STANDARDS: DEFINITION OF ADULTERATION.

Under the present Acts and Regulations an article is deemed to be adulterated:—

1. If it is injurious to health.
2. If (being a drug) it contains any ingredient which affects injuriously its quality or potency.
3. If it is milk and contains less than 3 per cent of fat or 8·5 per cent of solids-not-fat. If it is skimmed milk and contains less than 8·7 per cent of solids-not-fat. These are presumptive limits only. (See page 309.)
4. If it is condensed or dried milk and does not conform to the standards laid down for these articles.
5. If it is butter or margarine and contains more than 16 per cent of water. If it is milk-blended butter and contains more than 24 per cent of water.
6. If (being whisky, brandy, rum or gin) it is admixed with water so as to reduce the spirit below 35 degrees under proof.
7. If it contains preservative in contravention of the Preservative Regulations.

8. If it contains prohibited colouring matter.
9. If it is not of the nature, or not of the substance, or not of the quality demanded by the purchaser (Section 2 (i) of the 1928 Act).

Of the nine instances quoted above, two only—the first and last—apply generally to any article of food or drug. The first case, where an article is injurious to health, falls outside the scope of this consideration. As already stated (page 279) the majority of prosecutions are brought under Section 2 (1) of the 1928 Act, the article being alleged to be not of the nature, substance and quality demanded. The difficulty which arises here is that the prosecution has to show what *is* the nature, substance and quality demanded. What quality, if any, has the purchaser a right to expect when he demands strawberry jam, or coffee and chicory, or cheese, or diabetic flour, or baking powder, or sausage, or lemon cheese, to cite but a few examples? It is at this stage that “trade custom” is usually encountered. The Court is told that the particular substitution in question has the sanction of usage—it is the custom of the trade. The whole subject of trade custom has been dealt with so ably by a former analyst of yours (Mr. G. D. Elsdon, Annual Report for 1925), that it is proposed to do no more than give one or two examples here.

- a. Custard Powder. Custard, of course, was originally made from eggs. Nearly every custard powder on the market to-day is simply a vegetable starch, dyed yellow.

b. Fruit Cordials. Taking lemon juice as an example, the first stage was to substitute a solution of citric acid (which is prepared from lemons) flavoured with oil of lemon. The next stage sees citric acid substituted by tartaric, and the last by phosphoric acids, which have no connection with lemons at all. This is an instance of "justifiable modification of formula," as it has been called, which, if allowed to proceed unchecked, would undoubtedly develop into a "trade custom."

c. Bondon Cheese. See Annual Report for 1929. In this case an article was sold as Bondon milk cheese which contained 2 per cent of fat and 70 per cent of water. That is to say, it was a separated milk cheese loaded with water. After the case had been decided, the makers announced that they would in future describe the article as Bondon cheese. This name has been allowed by usage to describe almost any kind of soft cheese, although there is little doubt it originally meant a whole-milk cheese.

d. Lemon Cheese. This was undoubtedly originally made by the housewife from butter, sugar, eggs and lemons. At the other end of the scale is the product manufactured from glucose, tartaric acid, starch, gum, margarine and dye. Action has been taken with success against a number of such products in Salford.

These are but a few examples from the past. It is easy to foresee others in the future, and it appears that the only way in which a satisfactory position can be arrived at is the fixing of statutory limits of composition (i.e., standards) for foodstuffs where necessary by Regulation. Fresh legislation would be necessary before such Regulations could be made, and it is suggested that this should be framed in such a way that any article of food could subsequently be brought under Regulation if and when necessary. As for example: "The . . . (Minister of Health, Minister of Agriculture), after holding such enquiry as he/they think(s) fit, may make Regulations for fixing what shall be the composition of any article of food or of any drug, or what shall be the maximum or minimum amount of any or of all the constituents of any article of food or of any drug. Such Regulations shall be deemed to determine the nature, substance and quality of such articles within the meaning of Section 2 (1) of the Food and Drugs (Adulteration) Act, 1928, and any such article whose composition thereafter is not in accordance with such Regulations shall be deemed to be not of the nature, nor of the substance, nor of the quality of the article demanded, within the meaning of the said Section 2 (1) of the Food and Drugs (Adulteration) Act, 1928."

Under such an amendment of the 1928 Act, standards could then be set up for such articles as cream (including tinned cream), cheese and cream cheese, jam, custard powder, egg powder, baking powder, coffee mixtures, essences and extracts, pepper compound, sausages, lemon cheese, ice cream, fruit cordials, extracts and juices.

Other articles of food could be defined by Regulations as and when the need arose.

For the setting up of standards, it would appear that a Standing Committee, set up specially for the purpose, should hold enquiries. Such work would not seem to come under the province of the Consumers' Council or the recently reconstituted Parliamentary Committee on Food and Health. In the course of these enquiries the Committee would hear evidence from the point of view of producers, dealers, consumers and analysts. As a result of a report issued by the Committee (which should preferably be composed of non-expert persons and not include any connected with the food industry or distribution) the Minister would make Regulations in the manner described.

Certain sections of public opinion in this country are opposed to the idea of standards for foodstuffs. It would appear, however, that modern conditions are driving us inexorably in this direction. Most civilised and progressive foreign countries have already set up analytical standards for a wide variety of foods. The Federal Law of the United States contains definitions of over three hundred foods or food constituents, embodying well over one hundred analytical standards of percentage composition, and the list is still being extended. In the past year in this country some new standards have emerged. The cheese Bill (see page 280) is admitted on all sides to be a desirable innovation, though it stands little chance of becoming law at present. The jam standards (see page 280) are interesting if only because they have been set up by the manufacturers largely for

their own protection, but they have no legal status, although they would, no doubt, form a valuable code of reference in any case of prosecution where an article was inferior to those standards.

MISDESCRIPTION OF FOODSTUFFS; LABELLING AND ADVERTISEMENT.

It has already been remarked that out of the 138 samples other than milk which have been reported against in the past five years, 64 have been offences of misdescription. These have been false statements by means of label or advertisement. Furthermore, out of the 208 cases where it has been possible to trace the offence to the source, the vendor has been responsible in only 49. These figures suggest that the subject of accurate and truthful labelling and advertisement of articles of food and of drugs is worthy of the careful attention of Health Committees, of analysts, and others interested in a pure food supply. The proposition is here advanced that the present law of this country is inadequate to deal with this problem, and that it stands in need of revision and extension.

What has been called misdescription in this Report covers a rather wide variety of misstatements, whose inaccuracies may vary from simple falsehood to an ingenious twisting of the truth. It includes gross exaggeration, as well as failure to declare that the article described consists wholly or in part of cheap substitutes, or statements to that effect in type so small as to be valueless. A number of instances, taken at random out of those which have

been met with in Salford during the past five years, will serve to show the nature and extent of this tendency.

- a.* Samples of Cod Liver Oil Tablets. Various advertised as "More effective than the oil itself," "Two hundred and fifty times as rich in vitamins as the best butter," "Each tablet is equal to a spoonful of the finest cod liver oil." In no instance did five tablets contain as much vitamin A as one drop of cod liver oil.
- b.* Castor Oil Pills. Depending entirely for their action on other vegetable purgatives. Contained a minute amount of castor oil, presumably to justify the name. If their action had depended on the castor oil present, it would have been necessary to take at least one thousand pills to obtain the minimum dose.
- c.* Toffee. Various advertisements such as "The wonderful melts-in-the-mouth flavour is the direct result of using only those ingredients which should go to the making of the best toffee—butter, cream, milk and sugar." (Total fat resulting from all the butter, cream and milk present, 1.5 per cent. Contained 35 per cent of glucose syrup.) "You can taste the butter in it" (5 per cent). "Made from pure butter only" (50 per cent coconut oil). "Made from full-cream milk, farm butter and pure cane sugar" (two-thirds of the fat margarine).

d. Jam. "Home Made" (made from pulp and dyed). Many samples contained added fruit juice, with no declaration of the fact, or one in such small type as to be misleading. In the case of jam, however, the manufacturers have now set up standards and given a voluntary undertaking to conform to them as well as to a system of labelling, which is an advance on previous conditions.

e. Cheese. "Full Cream Cheese" (ordinary whole-milk cheese). "Bondon Milk Cheese" (skimmed milk cheese, heavily watered).

These examples might be multiplied, but enough have been given to show that modern advertising methods are very largely to blame for what are, in most cases, exaggerations of the qualities of the articles described. It seems to the writer that this may partly be due to the fact that advertising is often in the hands of an agent or a department whose scientific knowledge of the actual composition of the product is scanty, being often limited to a few high-sounding words such as "vitamins." These are worked up into highly-coloured statements, with but little regard for accuracy.

An account will now be given of the law relating to the labelling and advertisement of food and drugs as it stands at present. Regarding advertisement, there is no legal control of the accuracy of the statements made. The present law with regard to labelling, apart from the Regulations governing margarine, condensed and dried

milk, and the declaration of preservatives in certain articles (all of which are satisfactory so far as they go), consists of statute law and common law. The statute law is embodied in Sections 4 and 30 (1) of the Food and Drugs (Adulteration) Act, 1928, and the common law consists mainly of a number of cases arising out of Section 8 of the old Sale of Food and Drugs Act, which is practically identical with Section 4 of the new Act. This reads :—

1. No person shall be guilty of any such offence as aforesaid (i.e., selling an article not of the nature, not of the substance, or not of the quality demanded) in respect of the sale of any article of food or a drug mixed with any ingredient or material not injurious to health, and not intended fraudulently to increase its bulk, weight or measure, or to conceal its inferior quality, if at the time of delivering the article of food or drug he supplies to the person receiving it a notice, by a label distinctly and legibly written or printed on or with the article or drug, to the effect that it is mixed.
2. For the purposes of this Section a label shall not be deemed to be distinctly and legibly written or printed if the notice of mixture given by the label is obscured by other matter on the label. . . .

Expressed in non-legal phrase, this amounts to—
if a customer asks for an article (e.g., coffee) and the vendor sells him that article, but mixed with something

else (e.g., chicory), the vendor is protected if at the time of sale this fact is stated on the label, and if (a) the printing or writing is legible; (b) the second article is not harmful; (c) the second article is not used fraudulently to increase the bulk or weight. The decisions in cases which have turned on this point have, however, tended to confuse the issue.* In the writer's opinion "notice," whether given by label or otherwise, should be unequivocal and effective and given before the completion of the transaction; if printed or written, it should be absolutely legible and visible at the time of the sale.

Section 30 (1) of the Food and Drugs Act reads: "Every person who wilfully applies to an article of food or drug, in any proceedings under this Act, a certificate or warranty given in relation to any other article of food or drug, or who wilfully gives a label with any article of food or drug sold by him which falsely described the article sold, shall be guilty of an offence." The whole force of this Section is almost nullified by the one word "wilfully." In order for the prosecution to succeed on this Section they have to prove "guilty knowledge," as the legal phrase has it, and this is practically impossible. The

*a. *Bundy v. Lewis*; an Inspector asked for "paregoric" and received a bottle labelled "paregoric substitute," but covered by an opaque wrapper. It was held that the purchaser was not prejudiced.

b. *Pearks, Gunston and Tee Ltd. v. Houghton*; butter blended with milk so as to contain an excess of water was sold. The package had a label giving notice of this fact, but was wrapped in opaque paper which concealed this declaration. The opinion was expressed by the Justices of Appeal that this would not amount to "giving notice."

c. *Clifford v. Batley*; a grocer sold a packet of coffee along with five other small packets which were, for convenience, made into a large parcel. On opening this, it was seen that the wrapper of the small packet declared its contents to be sold as a mixture of coffee and chicory. Held that no offence had been committed.

prosecution naturally cannot prove or disprove the extent of the knowledge in the mind of the person who causes a label to be affixed, except in very rare cases. This word "wilfully" should be removed from the Section. The writer ventures to think that the law with regard to labelling, even as it stands, has failed in its intention. From the examples given above, it is suggested that it is obvious, that not only should these mistakes be corrected, but that it should be compulsory for the composition of many compound articles of food to be declared on the label. An extension of the Food and Drugs Act such as the following is needed :—

"The . . . (Minister of Health, etc.) may make Regulations for the labelling of any article of food or any drug. Any person who shall sell any article of food or any drug which is, in any particular, labelled contrary to such Regulations, or whose label contains any statement which is false, inaccurate, or misleading, or any person who causes such a label to be affixed, shall be deemed to have committed an offence. Provided, that no offence shall be deemed to be committed if the seller proves that he sold the article in the same condition as and labelled as when he received it, and that he had no reason to believe that the label was false, inaccurate, or misleading, or not in accordance with such Regulations."

Advertisement generally (whether of food or drugs) could be controlled by such a clause as the following :
"No person shall, in any manner whatsoever, publish

any description of any food or drug which is false or misleading." By simple extension, such a clause could be made to cover the advertisement of proprietary medicines. These are specifically exempted from the provisions of Section 2 of the Food and Drugs (Adulteration) Act, 1928. The extravagant claims made for many of these products are too well known to need emphasis at this point, and it is felt that such an extension would be an excellent and timely method of bringing them under control. As for example:—

"No person shall publish in any manner whatsoever any description of any food, drug, or proprietary medicine which is false or misleading. No drug or proprietary medicine, or its package or label, shall bear any statement, design, or device regarding its curative or therapeutic effects, or the effects of any of its ingredients, which is false or fraudulent."

An interesting warning has been issued by the Government of the United States in connection with so-called "Health Foods." This contains the following sentence: "In the enforcement of the Food and Drugs Acts it is necessary to warn manufacturers of these products that they must make their labels conform to the facts of medical science and actual laboratory tests." It is high time that similar warnings were issued in this country too; the statements (either by label or advertisement) of all foods, drugs or medicines should conform to the "facts of science and actual laboratory tests."

SUMMARY AND CONCLUSIONS.

The progress of science in general, and of chemical knowledge in particular, has a twofold effect. The consumer may benefit from purer and cleaner food and the analyst from more refined methods for the detection of adulteration, but at the same time there are placed at the disposal of persons who may be inclined to use them new and more subtle means of adulterating food with cheap or worthless substitutes. The growth of advertising in recent years has been largely responsible for the appearance of exaggerated and misleading statements with regard to foodstuffs and drugs. The hands of Public Health authorities and analysts need to be strengthened by law, so that their efforts on behalf of the consumer may be effective. In order that the consumer may be reasonably aware of the nature of what he buys, two things are necessary :—

1. Standards should be set up for certain foodstuffs, especially in those cases where the buyer is not in a position to judge fairly of the quality of the article.
2. Steps should be taken to ensure that the claims made by label or advertisement are reasonably truthful.

Suggestions have been made in the preceding pages as to the means by which these ends can be attained. They have been put forward in a definite and somewhat detailed form in the belief that more interest will be awakened and more useful discussion follow, leading

eventually, it is hoped, to a change in our laws representing a real advance.

Finally, it may be said that the foregoing has been written chiefly from the standpoint of the consumer; nevertheless, the writer believes that the recommendations put forward are also in the interests of the manufacturer and dealer. He ventures to think that the honest trader and merchant (who form the vast majority) will admit the need for the changes proposed, and agree that they will hamper only the small minority of the unfair and fraudulent among their numbers.

SECTION VIII.

Maternity and Child Welfare and Supervision of Midwives.

The staff consists of three Lady Medical Officers, an Assistant Inspector of Midwives, 17 Health Visitors, two Masseuses, one Artificial Light Operator and seven 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. The Senior Medical Officer supervises the visiting and assists in the administrative work of the Department. One of the Junior Medical Officers has charge of the Municipal Maternity Home and Babies' Hospital, and the other supervises Clinics and Centres in various parts of the City. 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 home and the health of its occupants. In addition, the Health Visitors carry on the work at the various Maternity and Child Welfare Centres throughout the City.

The Work of the Health Visitors.

During the year 1930, the whole of the wards in the City were visited by the Health Visitors.

The following Table gives the number of visits paid by the Health Visitors in the various wards and the number of babies and expectant mothers visited during the year 1930 :—

TABLE C.W. 1.

Wards	Total No. of Visits to Homes in 1930.	First Visits to Homes of Babies.	No. of Visits to Expectant Mothers.
Kersal	1333	161	40
Mandley Park .. .	1995	229	68
Albert Park .. .	2088	377	125
Trinity .. .	3803	298	108
St. Matthias' .. .	1894	342	80
Crescent .. .	2790	346	80
St. Thomas' .. .	2105	214	86
Charlestown .. .	2804	268	71
Claremont and Weaste .. .	2305	235	75
Seedley .. .	1058	104	20
Langworthy .. .	1446	160	26
Regent .. .	1647	270	48
Docks .. .	2002	191	43
St. Paul's .. .	2426	225	62
Ordsall Park .. .	2509	269	68
	32205	3689	1000

The following is a summary of the work done in Salford by the Visitor employed by the Manchester Jewish Ladies' Visiting Association :—

January to December, 1930.

House to House .. .	465
Special .. .	547
Re-Inspections .. .	117

Maternity and Child Welfare Clinics and Centres.

The practical work of the Maternity and Child Welfare Department is carried on at the Maternity and Child Welfare Clinics and Centres. There are two Child Welfare Clinics and eight Child Welfare Centres in the City. The two Clinics, one of which is held in the Municipal Buildings, Regent Road, Salford, and the other in the Teneriffe Street Schools, Broughton, are open daily. The accommodation at the Regent Road Clinic consists of a weighing room, with consultation room at the back, a clinic where minor ailments are treated and where mothers wait for consultation with the doctor. In addition, there is a Sunlight Clinic with consultation room and waiting room. Much good work is being done at the Teneriffe Street Clinic. The premises in which the Clinic is held are most unsatisfactory. It is very urgently desired that new premises should be provided to accommodate the large numbers of patients who attend this clinic from the Broughton area. Cases are reported by the Health Visitors of mothers refusing to attend this clinic because of the condition of the premises. There is no proper accommodation for expectant mothers attending the ante-natal clinic; they have to undress in a screened-off corner of a Hall which is also used as a waiting room for children and parents attending the School Clinic. The heating and ventilation are inadequate, in Winter-time the rooms being so cold that children cannot be undressed to be examined and weighed.

The eight Child Welfare Centres are situated in the various districts of the City, as follows:—

Ordsall Centre, Landseer Street, Salford.

10-12, Encombe Place, Salford.

John Street Centre, John Street Hall, Pendleton.

Seedley Centre, St. John's Wesleyan School,
Langworthy Road, Pendleton.

Enys Street Centre, Enys Street School, Whit
Lane, Pendleton.

Woodbine Street Centre, Woodbine Street, Salford.

Regent Road Centre, 133, Regent Road, Salford.

Irlams-o'-th'-Height Centre, Congregational Church
Irlams-o'-th'-Height.

These Centres are opened only once per week, where the children are weighed and mothers can seek advice *re* feeding and general care of their infants. All children are medically examined at their first attendance, and periodically afterwards. Children who are not gaining weight satisfactorily or are ailing, are examined at more frequent intervals. Expectant and nursing mothers who are in need of advice are also seen, but are referred for detailed examination to one of the Ante-natal Clinics.

On other days, sewing classes are held at Encombe Place, John Street, Ordsall, and Regent Road. At Ordsall, Encombe Place, and John Street Centres, expectant and nursing mothers are able to obtain dinners on every full working day at a nominal price, of which every advantage is taken. Each mother is allowed to bring one child under five years to the dinners. Every expectant mother attending the dinners is asked to attend the ante-natal clinic regularly, and is kept under medical supervision. The cases attending the clinics and centres are "followed up" in their homes by the Health Visitors, who help the patients to carry out the instructions given.

The following figures show the number of attendances and consultations at the Clinics and various Centres during the year 1930:—

TABLE C.W. 2.

CLINICS AND CENTRES.	No. of New Cases.				No. of New Cases.				Total Attendances.				Grand Total Attendances.	Consultations.			
	Children.		Mothers.		Mothers.		Children.		Mothers.		Children.			Mothers.			
	Under 1.	Over 1.	Expectant.	Nursing.	Expectant.	Nursing.	Under 1.	Over 1.	Expectant.	Nursing.	Under 1.	Over 1.		Expectant.	Nursing.		
C.W. Clinic	529	448	479	41	2229	158	3459	4892	10738	1751	1913	2229	158				
Ordsall	185	64	23	138	41	1645	2729	965	5380	666	303	41	47				
Encombe Place	275	63	23	121	59	1432	3906	1546	6943	814	377	59	78				
John Street, Pendleton..	187	52	35	110	83	1447	3522	2113	7165	714	512	83	60				
Seedley	292	44	5	193	6	1984	4467	1292	7749	940	342	6	47				
Enys Street	226	81	20	152	40	1556	3672	1737	7005	1010	622	40	43				
Regent Road	260	125	..	79	..	849	2533	1375	4757	756	508	..	7				
Woodbine Street	165	26	3	109	3	1134	1951	597	3685	555	236	3	18				
Teneriffe Street Clinic....	576	373	147	75	459	193	5973	4355	10980	2507	2009	459	193				
Irlams-o'-th'-Height	88	33	7	52	21	641	1078	622	2362	397	326	21	28				
	2783	1309	742	1070	2941	11039	33290	19494	66764	10110	7148	2941	679				

Massage.

A regular and continuous flow of cases continues to receive massage treatment for Rickets and other conditions causing loss of muscle tone and deformity. The results in all cases where the mothers will continue to bring their children regularly and for a sufficient length of time are very satisfactory, and complete cures have been effected in quite a number of cases. It is still a drawback to our work that when children are improving, the mothers break off their attendances and will not come to be officially discharged; this prevents the proper compiling of results, and makes our work seem less efficient than it really is.

During the year 1930 the following cases have been dealt with:—

Clinics and Centres.	No. of Regular Cases.	No. of Casual Cases.	Cases Discharged Cured.
Regent Road	174	146	37
John Street	59	66	4
Encombe Place.....	20	33	1
Teneriffe Street	106	84	19
Enys Street	53	63	28
Ordsall	30	20	2
Municipal Babies Hospital ..	39	7	28
TOTAL	481	412	119

Artificial Light Clinic.

This clinic has now been in existence since June, 1929. The results obtained from the treatment have fully justified the establishment of the Clinic. Both Mercury Vapour and Carbon Arc Lamps are used. Treatment is administered under the supervision of the Medical Officer, who examines all cases before they begin treatment. Thereafter they are examined at regular intervals during the course of treatment, which usually lasts for three months; a second course of treatment is given in special cases. The conditions treated are Rickets, Anæmia, Marasmus, and Debility following acute infectious diseases.

The following are the Sunlight Clinic figures for the year 1930 :—

Individual Cases	340
Total attendances	4,262
Cases discharged	113
Very much improved	55
Much improved	18
Improved	40
Cases sent into Hospital	6
No improvement owing to irregular attendance	98

Ante-Natal Clinics.

Ante-natal Clinics are held on Thursday each week at Regent Road and Teneriffe Street. The number of patients attending these Clinics is steadily increasing; some come of their own accord, some are sent by Health

Visitors, and others are sent by their own Doctors and Midwives. Each case is medically examined at the first attendance and at regular intervals afterwards—usually once each month for the first seven months, and then more frequently until the end of the pregnancy. If any abnormal condition is found, the case is referred to a Hospital or a Specialist for the appropriate treatment. It has been possible through this work to prevent the onset of serious complications.

Milk Scheme.

Owing to the great increase in unemployment in the City, there is an increasing demand for assistance under the Free Milk Scheme. During the year, assistance has been given to 1,412 applicants, free milk or dried food being granted to 1,357 and milk at part-pay to 55. Assisted cases are kept under careful observation and are required to attend the Clinics and Centres regularly. In all cases, investigation as to the financial circumstances of the family is made before any assistance is granted by the Corporation.

Demonstration Windows—Regent Road.

These windows arouse a good deal of interest among the mothers, many of whom come to the Regent Road Centre to learn more about the methods of feeding, clothing and general care of the children.

Municipal Maternity Home and Babies' Hospital.

This Institution has accommodation for 10 maternity cases and 16 children. The staff consists of the Medical

Officer, Matron, Sister, four Staff Nurses and eight Probationer Nurses. Since 1926 the Hospital has been recognised by the Central Midwives' Board as a Training School for Midwives. Sixteen Nurses have received their training and have obtained the Certificate of the Central Midwives' Board since that date. Five of these Nurses were General Trained and eleven were untrained. The teaching is done by the Medical Officer, Matron and Sister. As the accommodation at the Hospital is limited, only a few pupils can be taken each year ; this means that the pupils receive more individual teaching and get more practical work than they would do at a larger training school. Each pupil also attends the Ante-natal Clinic at Regent Road and receives instruction in ante-natal care. All cases for the Maternity Home are booked at the Health Offices, Regent Road, and are required to attend regularly the Ante-natal Clinic held there. There is no difficulty in getting patients to attend this Clinic, and as a result any abnormalities are treated promptly and serious complications avoided at the time of the confinement. When they are discharged from the Maternity Home, patients are invited to bring their babies to the Child Welfare Centres, where they receive advice regarding their own health and that of their babies.

MATERNITY DEPARTMENT.

1. ADMISSIONS.

The number of new cases admitted during the year 1930 was as follows :—

For special ante-natal treatment	19
For confinement	255

Treated and not returned for confinement	4
Referred to Hope Hospital	4
Born before arrival	1
2. BIRTHS (including 2 sets of twins).	
Males	131
Females	120
3. STILLBIRTHS.	
Males	5
Females	1
4. DEATHS OF INFANT.	
Males	1
Females	2
5. MEDICAL ASSISTANCE.	
Maternity	79
Infants	3

BABIES' DEPARTMENT.

The 16 beds for children are divided into 10 beds for cases of Rickets and 6 beds for other sick infants.

1. ADMISSIONS.

The number of new cases admitted during the year 1930 was 41, disposed as follows:—

16 Rickets.

14 Marasmus.

9 Malnutrition.

1 Tubercular Spine.

1 Acute Broncho-Pneumonia.

2. DISCHARGES.

The number of cases discharged during the year 1930 was 35. These were as follows :—

Cured.

- 11 Rickets.
- 7 Marasmus.
- 5 Malnutrition.
- 1 Broncho-Pneumonia.

Improved.

- 5 Rickets.
- 1 Marasmus.
- 1 Malnutrition.

No Improvement.

- 1 Rickets—taken out by parents after very short stay.

Transferred.

- 1 Chicken Pox to Ladywell Sanatorium.
- 1 Chicken Pox to own home.
- 1 Hirschprung's Disease to Manchester Children's Hospital, Pendlebury.

3. DEATHS.

The number of deaths during 1930 was 6, as follows :—

- 1 Marasmus and Chronic Dyspepsia.
- 1 Convulsions and Dyspepsia.
- 3 Marasmus and Chronic Gastro-Enteritis.
- 1 Prematurity.

For the successful treatment of cases of Rickets and Marasmus a long stay in hospital—for three to four months at least—is found to be necessary. Only a few cases can be admitted to the Babies' Hospital in the course of a year, as the accommodation is so limited. The cases admitted have shown a remarkable response to hospital treatment. A Sunlight Lamp is used for the treatment of Rickets and Marasmus and Malnutrition. Clinical treatment is supplemented by natural sunlight and fresh air. In the summer months it is often possible to keep the babies out of doors all day.

When a child is discharged from the Hospital, the mother is given written instructions as to feeding, etc. The methods employed at the Hospital are such as can be easily continued in the average Salford home.

Supervision of Midwives—Midwives Act.

There are 85 midwives on the register in Salford; 16 are connected with a Public Institution and nine are not practising, leaving 60 practising midwives, of whom 42 reside within the City.

PARTICULARS OF QUALIFICATIONS.

	Bona-fides.	St. Mary's Hospital.	London Obstetrical Society.	Central Midwives' Board.	Total.
Practising Midwives	3	5	4	48	60
Non-practising Midwives.....	—	1	1	7	9
Maternity Nursing	—	—	—	—	—
Institution Nurses	—	—	—	16	16
Totals	3	6	5	71	85

The midwives are regularly visited, and their books, instruments, etc., inspected by the Assistant Inspector under the supervision of the Medical Officer. The midwives are encouraged to consult with the Medical Officer when cases of difficulty arise. During the year, five midwives removed from the district, three of these from the Royal District Nurses' Home, The Crescent, Salford; one changed her address; six midwives were newly registered, and one died. During the year, 2,287 births were attended by midwives alone, and 255 cases were attended by doctors with midwives acting as maternity nurses.

Notifications.

Under the Midwives Act, midwives must notify the Local Supervising Authority each time they require to call in a medical practitioner. During the year, 1,110 such notifications were received, the causes being as follows:—

Abnormal Presentations.....	60
Deformed Pelvis	6
Antepartum Hæmorrhage	29
Placenta Prævia	1
Postpartum Hæmorrhage.....	30
Uterine Inertia.....	106
Obstructed labour, or requiring instrumental assistance	157
Retained Placenta or Membranes	35
Ruptured Perineum	290
Rise of Temperature	36
Eclampsia	2
Premature Birth	26
Miscarriage and Abortion	24
Inflammation of Eyes	154
Other causes relating to Mother	78
„ „ „ Child.....	76
Total	<u>1,110</u>

Thirteen notifications of contact with infectious disease were received.

Fifty notifications of artificial feeding, 63 stillbirths, and 34 deaths of infants were notified by midwives during the year.

Investigation of Stillbirths and Infant Deaths.

Each case occurring in midwives' practices is thoroughly investigated by the Assistant Inspector of Midwives.

As practically every mother now receives ante-natal 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 63 stillbirths occurring in midwives' practices there were :—

- 5 Abnormal presentation.
- 5 Premature.
- 1 Spina Bifida.
- 2 With history of previous Stillbirth.
- 6 Born before arrival of help (two of these were macerated).
- 10 Macerated.
- 9 Where mother had had a bad shock.
- 3 Antepartum hæmorrhage.
- 10 Illness of mother.
- 2 Anencephalus.
- 1 Monster Freak.
- 6 Difficult labour.
- 2 Where cord was several times round child's neck.
- 1 Where doctor was engaged for the case.

Deaths of Newly-born Infants (no Registered Practitioner being in Attendance at the Birth).

Inquests were held in connection with three infant deaths occurring in practices of midwives. One was a case of premature birth (the child only lived five minutes); the other two were apparently healthy when born, but had convulsions before the nurses' second visit, and died before medical aid could be procured. A verdict of death from natural causes was returned in each case. When necessary, the Assistant Inspector attends the inquests.

In addition, 30 notifications of infants' deaths were received, medical practitioners being called in each case. The causes of death were as follows:—

- 13 Prematurity and debility.
- 3 Prematurity and cardiac failure.
- 1 Congenital malformation.
- 8 Congenital debility.
- 4 Convulsions.
- 1 Injuries from parturition.

Puerperal Fever.

Thirteen cases of Puerperal Fever were notified during the year, three of which were doctors' cases. Of the remaining 10 cases, six midwives had one case each, two were confined in the Municipal Maternity Home, one in St. Mary's Hospital, and one in Hope Hospital. They were thoroughly inquired into, and every care taken to prevent the spread of the disease.

On notification, each case is investigated by the Assistant Inspector of Midwives. The patient is removed

by doctors' orders (except in one or two special cases) to Ladywell Sanatorium or Hope Hospital. Full details concerning the confinement and onset of the illness are taken from someone in authority in the house. The patient's room and bedding are disinfected. The midwife is interviewed and particulars taken of the case and also a resumé of the 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 bath and have her clothes, instruments, and bag disinfected. Other cases which the midwife may have been attending at the same time are visited by the Inspector. The midwife is warned to watch these cases carefully, and if she is at all anxious to send for the doctor without delay. In a case of suspected sepsis, the midwife sends for the doctor, reports to the Health Offices, and is temporarily suspended until she hears the doctor's decision. As an alternative, she may devote herself to one patient and pass on her other duties to another midwife.

Puerperal Pyrexia.

During the year, 29 cases were notified in Salford :—
25 recovered, and

4 proved fatal. One of these patients was suffering from Endocarditis following Rheumatic Fever; one was suffering from Tuberculosis; one was a doctor's case which developed Puerperal Mania following Influenza, and one developed Peritonitis following Cæsarean Section.

16 cases were removed to Hospital.

6 cases were nursed at home.

7 cases occurred in Hope Hospital and were isolated there.

Special accommodation has been provided at Ladywell Sanatorium for this class of case.

As the regulations require prompt notification of rise of temperature, special attention for these cases is quickly available, and if necessary a Consultant may be called in, arrangements for which have been made.

Bacteriological examinations of lochia and blood are made on request at the Municipal Laboratories. In cases where the doctor does not think it necessary to remove the patient to Hospital, she can be nursed at home, a special nurse (trained, and a midwife) being sent from the Maternity and Child Welfare Department to nurse the case under the supervision of the patient's own doctor.

The same precautions are taken with Puerperal Pyrexia as with Puerperal Fever, the disinfection and suspension of midwives being carried out in a similar manner.

Disinfection.

Five midwives were disinfected on account of being in contact with a notifiable infectious disease other than Puerperal Fever. Three midwives were disinfected at Mode Wheel Disinfecting Station on account of having been in contact with Pemphigus Neonatorum; in two cases in which it was found that the rash had developed after the midwives had ceased to attend the patients, the midwives in question had disinfecting baths at home.

Ophthalmia Neonatorum.

During the year 1930, 34 cases of Ophthalmia Neonatorum were notified, six of these being notified or re-notified by the Medical Staff of the Royal Eye Hospital.

Of the 34 cases notified—

27 occurred in the practise of midwives.

5 were notified by the Royal Eye Hospital.

1 was notified from the Municipal Maternity Home.

1 was notified from the Maternity and Child Welfare Clinic.

These cases are visited by the Assistant Inspector of Midwives, and where necessary, a District Nurse is sent to give treatment under doctors' orders.

In 20 cases both eyes were affected, and in 14 cases one eye was affected. There was one very severe case, two severe cases, eight moderately severe, 12 slight cases, and 11 very slight cases. Four cases were referred to the District Nurses, who paid 129 visits; 153 visits were paid by the Assistant Inspector of Midwives, who also visited all cases of inflammation of the eyes, under the Midwives' Act, the number of visits paid being 438.

All the 34 cases recovered without injury to sight.

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.

Ophthalmia Neonatorum.

Cases Notified	Cases Treated.			Vision Unim- paired.	Vision Im- paired.	Total Blind- ness.	Deaths.
	At Home	At Hospital. Out-P.	In-P.				
34	28	3	3	34	Nil.	Nil.	Nil.

Pemphigus Neonatorum.

There has been a slight decrease in the number of cases of this disease during the year 1930.

The number of cases which occurred during the year was seven, all of which recovered.

Of the seven cases—

- 1 was affected on the body and head.
- 2 were affected on the legs.
- 3 were affected on the neck and face.
- 1 was affected on the abdomen and thighs.

The age at which the disease started varied from the sixth day to three weeks.

5 of the cases occurred in midwives' practices.

1 was a doctor's case.

1 was attended by St. Mary's Hospital nurse.

Three of the nurses involved were disinfected at the Corporation Disinfecting Station at Mode Wheel and two had disinfectant baths at home, as the condition did not arise until after the nurses finished the cases. Every care was taken to prevent the spread of infection.

When the disease started during the first 10 days, the cases were taken over from the midwives and nursed by a trained midwife and nurse belonging to the Health Department.

Nursing Homes Registration Act, 1927.

Two Nursing Homes have been registered during the year. There are now nine Nursing Homes registered in the City; six of these are Maternity Homes and three Medical and Surgical Homes. These Homes are inspected regularly by the Senior Medical Officer assisted by the Assistant Inspector of Midwives.

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.	Births in Municipal Maternity Home.	Live Births not Notified.
Kersal	5	148	89	37	..	15	7	8
Mandley Park	6	209	128	31	..	44	6	2
Albert Park	17	286	158	50	1	50	27	6
Charlestown	14	293	196	19	1	47	30	1
St. Matthias'	10	291	191	38	..	52	10	1
Trinity	22	305	198	51	..	51	5	3
St. Thomas'	8	235	152	11	..	62	10	2
Claremont	7	62	19	20	5	9	9	3
St. Paul's	9	247	162	12	1	57	15	3
Seedley	7	108	57	14	..	21	16	1
Langworthy	8	178	101	16	..	43	18	..
Weaste	4	189	92	15	..	53	20	1
Regent	11	316	194	13	1	82	26	1
Docks	7	191	120	22	..	35	14	..
Crescent	25	392	251	30	..	92	19	4
Ordsall Park	10	316	224	9	2	62	19	4
	170	3757	2332	388	11	775	251	40

TABLE C.W. 4.

SUMMARY.

BIRTHS.

Registered: Legitimate, 3,640; Illegitimate, 147; Total, 3,787.

Notified: Live births, 3,757; Still births, 170; Total, 3,927.

By Midwives, 2,332: by Parents, Doctors and Institutions, 1,425.

Un-notified Births = 40.

STILLBIRTHS.

	Legitimate	Illegitimate	Total
Males.....	86	5	91
Females	77	2	79
Total....	163	7	170

INFANT DEATHS (UNDER 1 YEAR).

Number: Legitimate, 290; Illegitimate, 33; Total, 323.

Rate per 1,000 births: Legitimate, 80; Illegitimate, 224; Total, 86.

MIDWIVES.

Number practising in district: Trained, 57; Untrained, 3.

Number of visits paid: Routine and special, 328.

HEALTH VISITORS.

Visits paid by Health Visitors during year:—

To Expectant Mothers: First visits, 741; Total visits, 1,000.

To Children: First visits, 3,689; Total visits, 31,205.

To Mothers and Children: Total visits, 32,205.

	No. of cases notified.	No. of visits.	No. of cases nursed.	No. of cases removed to hospital.
Ophthalmia Neonatorum	34	153	4	3
Puerperal Fever	13	33	..	13
Puerperal Pyrexia	29	42	6	23*

* 7 notified from Hope Hospital and isolated there.

SECTION IX.

Hope Hospital.

1. GENERAL.—The statistical statement for 1930 again shows increases in the number of patients treated in every department of the Hospital's work. Special attention may be drawn to the increases in surgical operations, in X-ray examinations, to the number of patients treated in the department of massage and electro-therapeutics, and to the number and variety of pathological specimens examined.

I regret to report that, in spite of continued use of the wards (86 beds) for sick and bedridden cases at the Institution, a condition of serious increase in overcrowding has existed generally in the Hospital wards during 1930. This is illustrated very well by the fact that the daily average number of patients in the Hospital has been 969 during 1930. This is the highest figure ever reached in the history of the Hospital. As the proper number of beds, allowing for adequate cubic air space in the wards, should be 850, the conclusion is obvious. The remarks made in my report in 1929 still hold good, with added seriousness.

The Hospital continues to pass through a very trying and anxious time, owing to the increasing demands on all departments. Especially is this serious in the case of in-patients. There has, practically throughout the year, in the majority of wards, been a regrettable necessity

to sleep patients on temporary shakedowns on the floor, on most nights. What this means in unjustifiable inconvenience and even danger to patients and to staff must be experienced to be fully comprehended.

During 1930 a further and more detailed classification of patients on the female side has been made, with advantage to their treatment and nursing.

2. RESIDENT MEDICAL STAFF.—An additional member of the Resident Medical Staff—the Resident Medical Officer—was appointed in September, 1930. A fourth Assistant Medical Officer was sanctioned in November, 1930. The Resident Medical Staff now consists of seven Doctors—three seniors—the Deputy Medical Superintendent (who is also Resident Obstetric Officer), the Resident Surgical Officer, and the Resident Medical Officer, and four juniors—the Assistant Medical Officers.

3. VISITING MEDICAL STAFF.—A Visiting Gynæcologist (Dr. Hunter) and a Visiting Specialist in children's diseases (Dr. Chisholm) were appointed early in 1930. The Visiting Orthopædic Surgeon (Mr. Milner) began duty in May, 1930.

Specialists in diseases of Ear, Nose and Throat, Eye, Skin, etc., have been called in, in consultation as and when required.

Full use has been made of the services of the Senior Clinical Tuberculosis Officer and of the Venereal Diseases Medical Officer during the year.

4. OPERATIVE SURGERY.—There is again a large increase in the number of operations. The theatre is in

use every weekday for regular operating sessions. Emergency operations are practically a daily occurrence in addition. Visiting surgeons have this year been responsible for 219 operations, as compared with four or five in previous years.

The increase in regular operating sessions and of the total number of operations has thrown a great number of administrations of anæsthetics on to the Resident Medical Staff, members of which have given 1,302 anæsthetics, as compared with 705 in 1929.

For the same reasons an Assistant Theatre Sister (who is also Orthopædic Sister) has been appointed, and a staff of Probationer Nurses have now been definitely attached to the Theatre instead of being allocated to Wards.

5. MENTAL WARDS.—The conditions in these wards, both male and female, continue to be most unsatisfactory. The remarks made in my report for 1929 all hold good still. The pressure on the accommodation both in the male and in the female wards has been greater than ever. The difficulties have been enhanced by unavoidable delays in obtaining vacancies at Mental Hospitals for patients certified for removal. During November–December the presence of smallpox in the City further increased our difficulties in this respect, as, during quarantine, the Mental Hospitals would not accept any transfers.

6. MATERNITY DEPARTMENT.—The work of this Department again shows an increase, with evidence of successful management.

The ante-natal clinic has continued on the same lines as in 1929. There has been an increase of 103 in the number of new cases seen and of 553 in the total number of attendances. 66 per cent of the total number of patients confined had previously attended the ante-natal clinic. Maternal deaths totalled 5, a percentage of 0·7 as compared with 1 per cent in 1929 and 1·4 per cent in 1928.

Still-births numbered 51 equalling 6·8 per cent, as compared with 5·1 per cent in 1929 and 8·6 per cent in 1928.

Neo-natal deaths numbered 12, a percentage of 1·6, compared with 2·5 per cent in 1929 and 3·7 per cent in 1928.

During 1930 twenty-five pupil midwives were under training, and twenty-two obtained the Diploma of the Central Midwives' Board.

The Steward, Mr. C. A. Hankins, reports as follows :—

The following is a brief summary of the more important improvements that have been carried out mainly by the maintenance staff as regards the fabric and usual upkeep of the Hospital.

Hospital Wards.

A. PAVILION.—In order to provide additional accommodation for the Medical Staff, the Porter's Lodge, Female Receiving Ward and corridor have been re-conditioned and decorated. An extra two-bed "special" ward has been provided on A.1 Ward by converting the

old messengers' waiting room. This room was plastered and decorated, and lighting supplies re-run in conduit.

A Sun-treatment Lamp, milk steriliser and electric kelvinator has been installed on A.2 (Babies) Ward. New babies' baths and a sluice hopper have been erected in the bathrooms.

B. PAVILION.—Wards B.1 and B.2 have been plastered by the contractors and reconditioned by the Maintenance Staff. The walls have been re-decorated, lighting and wireless supplies entirely re-run in conduit. Lighting points with plug for hand-lamp have been installed between every two beds. Wash-bowls for use of surgeons when examining patients have been installed in the wards.

Fireplaces on Ward B.1 have been taken out. To give additional light to the ward, a new window was built in the first chimney breast. Glass and wood doors and a run-way have been built in the second chimney breast in order to allow beds to be taken out on to the lawn.

H. PAVILION.—In H.2 Ward Dayroom a new bath and wash-bowl have been erected for use in regard to the nursing of young children.

GENERAL.—Electric power and lighting cables have been laid from the main switchboard to "Broomhurst" Lodge, and a power cable to A. Pavilion. This latter cable is large enough to ensure supplies, if necessary, to B. and C. Pavilions for small electrical apparatus.

The Roman Catholic Chapel and Vestry have been beautified.

The whole of the outside woodwork, bridges, etc., of the Hospital have been painted and, where necessary, repaired.

Most of the bedrooms, general rooms, and corridors of the Nurses' Home have been re-decorated.

The Hospital is now on the Corporation 3-phase supply. The necessary re-wiring works, balancing up, and new connections have been carried out by the Electricians. The ceiling of the Power House has been, at the request of the Electrical Engineer, made vermin and fire-proof.

GAS METER HOUSE.—The gas meter house has been re-constructed and increased in size to house the larger gas meters supplied by the Corporation Gas Department.

A new Staff-locating System has been installed on all wards of the Hospital. This operates from "Broomhurst" Lodge and enables the telephone operator to transmit through a Brown's Electric Megaphone simultaneously to 44 points in the Hospital. The system will eliminate to a certain extent the present method of having to telephone all wards when seeking a principal officer.

The ceiling of the Hospital Kitchen has been renewed with asbestos sheets and a principal roof truss repaired and strengthened.

The following is a list of general maintenance work carried out on the heating domestic supply, gas, electricity, boilers and other essential services by the maintenance staff during the past twelve months:—

Engineering Staff	1,032 jobs.
Electricians „	1,823 „
Plumbers „	1,371 „
Joiners „	1,849 „
Bricklayers „	214 „
Total	6,289 „

OUTSIDE GROUNDS.—During the past twelve months every possible attempt has been made to keep the gardens and grounds as bright and colourful as possible. The greenhouse and small nursery have proved very helpful in the propagation of plants. Additional cold frames have been erected to ensure a good supply of plants for all our beds and borders.

WORK OF THE HOSPITAL DURING 1930.

(The comparative figures for 1927–28–29 are given.)

STATISTICS.

1. GENERAL.

	1927.	1928.	1929.	1930.
Remaining under treatment at close of the year	960	914	922	941
Admissions	5,801	6,430	7,477	7,583
Births	409	559	673	685
Total number treated.....	7,170	7,903	9,072	9,209
Average cost per patient per week	s. d. 35 1	s. d. 34 7	s. d. 36 2	s. d. 43 4
Discharged during the year	5,125	5,545	6,936	7,130
Deaths	1,003	926	1,141	1,038
Total	6,128	6,471	8,077	8,168
Mortality	13.9%	11.7%	12.5%	10.9%

2. SURGICAL OPERATIONS.

	1927.	1928.	1929.	1930.
(a) Number of Patients	960	1,074	1,403	1,807
(b) Number of Operations.....	1,098	1,191	1,535	1,931

Operators.

Medical Superintendent	582	719	848	795
Resident Staff	374	350	550	793
Visiting Surgeons.....	4	5	4	219

Anæsthetics.

Dr. Ghosh	572	613	679	503
Resident Staff	388	461	724	1,304

Classification of Operations in 1930.

1. Mouth (including teeth)	19
2. Abscesses (various).....	69
3. Gynæcological	413
4. Tonsils and Adenoids	612
5. Bones and Joints	113
6. Stomach and Intestinal	72
7. Liver and Gall Bladder	19
8. Appendix	217
9. Hernia.....	133
10. Genito-urinary	47
11. Hæmorrhoids	44
12. Breast	9
13. Ear	11
14. Empyema	9
15. Nose	6
16. Various	14
Total	1,807

Out of the 1,807 operations, 436 were abdominal sections, including 19 Cæsarian Sections.

3. MATERNITY DEPARTMENT.

	1927.	1928.	1929.	1930.
Confinements	409	559	673	747
Maternal Deaths	2	8	7	5
Still-Births	51	48	34	51
Infantile Deaths	15	19	17	12
Cæsarian Sections	14	12	4	19
Instrumental Deliveries	31	37	22	31
Toxæmias of Pregnancy	11	11	17	17
Hæmorrhages of Pregnancy	25	22	21	16
Bougie Inductions	10	9	7	29
Puerperal Fever	4	4	1	2
Attendances at Ante-natal Clinic	1,400	2,135	2,536	3,089
New cases seen	—	—	659	762

4. X-RAY DEPARTMENT.

	1927.	1928.	1929.	1930.
Number of Patients	1,053	1,118	1,300	1,985

5. DEPARTMENT OF MASSAGE AND ELECTRO-THERAPEUTICS.

(a) *Massage.*

Number of In-patients	162	212	247	309
„ „ Out-patients	67	76	85	125
Total	229	288	332	434
Number of Treatments—				
In-patients	5,605	6,333	8,246	9,377
Out-patients	1,663	2,089	2,579	3,114
Total	7,268	8,422	10,825	12,491

(b) *Electro-therapeutics.*

Number of In-patients	36	44	34	85
„ „ Out-patients	36	29	26	60
Total	72	73	60	145
Number of Treatments—				
In-patients	998	954	1,513	3,256
Out-patients	624	862	854	1,560
Total	1,622	1,816	2,367	4,816

(c) *Ultra-violet Radiation.*

Number of Treatments	—	1,400	1,730	2,072
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6. OUT-PATIENTS DEPARTMENT.

Dressings and Treatments	—	2,398	6,414	6,523
Consultations, etc.	—	1,404	3,915	4,522
Total	2,300	3,802	9,609	11,045

7. PATHOLOGICAL DEPARTMENT.

Autopsies conducted	143	168	130	127
Specimens examined	909	1,168	1,256	3,487

8. MENTAL WARDS.

	Male.		Female.		Total.	
	1929.	1930.	1929.	1930.	1929.	1930.
Patients under treatment on 1st January	64	60	98	111	162	171
Patients admitted during the year	205	220	181	196	386	416
Patients transferred from Asylum	—	1	1	—	1	1
Totals	269	281	280	307	549	588

ADMISSIONS.

	Male.		Female.		Total.	
	1929.	1930.	1929.	1930.	1929.	1930.
From Hospital Wards	65	83	43	58	108	141
From outside	140	138	138	138	278	276
On 3-day Order...	140	137	129	130	269	267
On 14-day Justice's Order	—	—	—	1	—	1
On 14-day M.O.'s Order	63	84	43	60	103	144

DISCHARGES.

	Male.		Female.		Total.	
	1929.	1930.	1929.	1930.	1929.	1930.
Discharged during the year .	156	156	143	146	299	302
Released c/o friends	56	69	55	52	111	121
Transfers to Mental Hospital	39	38	52	31	91	69
Released to other Wards ...	53	37	35	59	88	96
Released to Eccles New Road Institution	8	12	1	4	9	16
Totals	156	156	143	146	299	302
Deaths during the year	32	48	11	16	43	64

9. The following table shows graphically the increase in the civilian work of the Hospital since 1914. It is to be noted that from 11th May, 1915, to 30th June, 1919, the Hospital was in partial military occupation. During that period some 640 beds were allocated to the military authorities under the Second Western General

Hospital, for the reception and treatment of sick and wounded soldiers. 7,000 military patients were passed through the Hospital during that period. Simultaneously with the military occupation of the Hospital, approximately 350 beds were in constant use by civilian patients. Accommodation was provided for the military patients by the opening up of a Temporary Hospital at the Eccles New Road Institution, and by the transfer of various classes of patients to the Hospitals of other Unions in Lancashire, and to certain Mental Hospitals.

The figure given under the column "Average Daily Number of Patients" for 1929 is deceptive, as during the whole of that year an average of 86 patients was accommodated at the Temporary Hospital Wards established at the Eccles New Road Institution. Thus, the real figure for 1929 in this column would be approximately 1,000. The same remarks apply to the year 1930.

Year.	Admissions.	Births.	Discharges.	Deaths.	Average Daily No. of Patients.	Opera- tions.
1914	2,728	12	2,135	591	749	149
1915	1,632	4	1,393	491	514	160
1916	1,330	—	941	353	439	175
1917	1,263	3	1,058	335	407	146
1918	1,402	16	1,104	391	303	144
1919	1,559	7	1,056	348	339	107
1920	2,516	64	1,756	451	689	163
1921	3,335	227	2,859	617	858	332
1922	3,720	263	3,272	745	888	395
1923	4,463	250	3,749	815	870	430
1924	4,416	182	3,742	922	811	523
1925	5,315	293	4,292	1,015	868	802
1926	5,471	366	4,839	903	943	882
1927	5,801	409	5,125	1,003	943	960
1928	6,430	559	5,545	926	960	1,076
1929	7,477	673	6,936	1,141	918	1,403
1930	7,583	685	7,150	1,038	969	1,807