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COUNTY COUNCIL OF THE COUNTY OF LANARK.

ANNUAL REPORTS

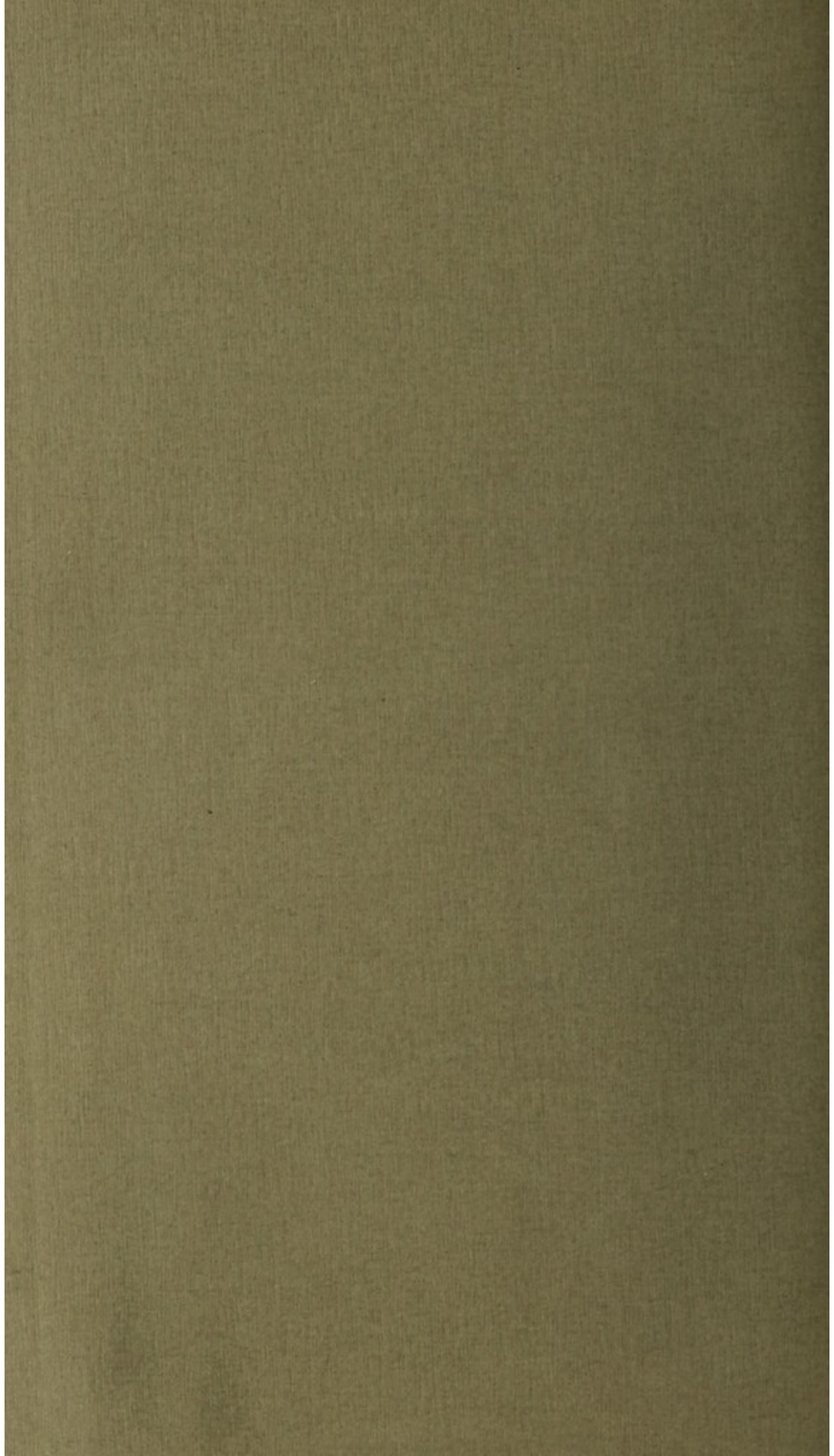
OF THE

COUNTY MEDICAL OFFICER OF HEALTH

AND THE

COUNTY SANITARY INSPECTOR

FOR THE YEAR 1936.





COUNTY COUNCIL OF THE COUNTY OF LANARK

ANNUAL REPORTS

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FOR THE YEAR 1936.

GLASGOW :

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CONTENTS

	Pages
Staff,	4
Hospital Services,	7, 50
General Hospital,	83
Medical Care and Nursing of Sick Poor,	84
School Health Administration,	6
Area,	9
Population,	9
Occupied and Unoccupied Houses,	9
Births,	10
Deaths,	10
Infectious Diseases,	11
Respiratory Diseases,	11
Malignant Diseases,	12
Diabetes,	13
Supply of Insulin,	13
Supply of Additional Nourishment,	14
Clinic,	15
Infectious Diseases,	17
Diphtheria,	17
Scarlet Fever,	21
Immunisation,	20
Enteric Group,	23
Cerebro-Spinal Meningitis,	24
Erysipelas,	25
Pneumonia,	25
Continued Fever,	27
Dysentery,	28
Acute Anterior Poliomyelitis,	28
Undulant Fever,	28
Encephalitis Lethargica,	32
Diarrhoeal Diseases,	32
Measles,	32
Whooping Cough,	33
Schools,	33
Venereal Diseases,	33
Removals to Institutions,	35
Tuberculosis,	37
Deaths,	37
New Cases,	38
Cases on Record,	43
X-ray Examination,	46
Treatment,	47
Rehousing of Affected Families,	42
Silicosis and Asbestosis Scheme,	50
Institutional Accommodation,	50
Maternity and Child Welfare,	54
Attendance at Confinement,	56
Infantile Mortality,	56
Maternal Deaths,	58
Puerperal Fever and Puerperal Pyrexia,	62
Still-births,	63
Ophthalmia Neonatorum,	63
Ante-natal Supervision,	65
Ante-natal Albuminuria,	65
Hospital Treatment,	66
Child Welfare Centres,	66
Artificial Sunlight Treatment,	72
Treatment of Squint,	73
Dental Treatment,	73
Ear, Nose, and Throat Ailments,	74
Educational Work,	74
Food and Milk,	75

Maternity and Child Welfare—Continued.		Pages
Children Act, 1908, ...	...	76
District Nursing Associations, ...	...	77
Midwives and Maternity Homes (Scotland) Acts, ...	...	77
Housing, ...	...	92, 147
Seasonal Workers, ...	...	112
Drainage, ...	...	116
Water Supply, ...	...	120
Scavenging, ...	...	123
Private Streets, ...	...	133
Nuisances, ...	...	134
Rats and Mice Destruction Act, ...	...	136
Cinemas, ...	...	137
Public Conveyances, ...	...	137
Workshops, ...	...	137
Schools, ...	...	139
Tents and Vans, ...	...	139
Interments, ...	...	140
Common Lodging Houses, ...	...	140
Houses Let-in-Lodgings, ...	...	143
Offensive Trades, ...	...	143
Pigstyes, ...	...	144
Burial Grounds, ...	...	145
Dairies, ...	...	140
Cleanliness of Milk Supplies, ...	...	88
Milk (Special Designations) Order, ...	...	85
Milk supplied to School Children, ...	...	89
Veterinary Inspection of Dairy Herds, ...	...	446
Meat Inspection and Slaughterhouses, ...	...	157
Unsound Food, ...	...	144, 171
Food Inspection, ...	...	144
Meat Regulations, ...	...	171
Humane Slaughtering of Animals, ...	...	172
Food and Drugs, ...	...	173
Fertilisers and Feeding Stuffs, ...	...	182
Shops Acts, ...	...	183
Rivers Pollution Prevention, ...	...	186

SEPARATE REPORTS INCORPORATED IN THIS VOLUME.

Sanitary Inspector, ...	...	92
Building Inspector, ...	...	147
Meat Inspector, ...	...	157
Veterinary Inspector, ...	...	447
Food and Drugs Inspector, ...	...	173
Rivers Inspector, ...	...	186
Chemical Laboratory, ...	...	226
Bacteriological Laboratory, ...	...	231
County Hospital, Motherwell, ...	...	238
Lightburn Joint Hospital, Shettleston, ...	...	302
District Hospital, Roadmeetings, ...	...	313
District Sanatorium, Roadmeetings, ...	...	326
Hairmyres Colony, ...	...	332
County Orthopaedic Hospital, Stonehouse, ...	...	363
County Sanatorium, Uppertown, ...	...	384
County Sanatorium, Shotts, ...	...	390
County Maternity Hospital, Bellshill, ...	...	398
County Convalescent Home, Baillieston, ...	...	431
County Hospital, Lanark, ...	...	436
Omoa House, Cleland,	441
Crosslaw Home, Lanark,	444
Burgh of Lanark,	467
Burgh of Biggar,	463

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Senior Rivers Inspector.

FRANK M'ARTHUR.

Supervisor of Nurses.

M. M. STEWART.

COUNTY COUNCIL OF THE COUNTY OF LANARK.

ANNUAL REPORT.

INTRODUCTION.

Vital Statistics.

Births.—The births registered numbered 5,902, giving a birth-rate of 19·36 per 1,000 of the population, compared with 5,981 and a birth-rate of 19·58 the previous year.

Deaths from all Causes.—3,606 deaths were registered, an increase of 72 over the year 1935. The death-rate was 11·83, compared with 11·57 the previous year. The principal causes of death showing an increase were :—Measles, 15 ; whooping-cough, 19 ; pneumonia, 71 ; bronchitis, 16 ; infantile diarrhoea, 14. The mortality from pneumonia and bronchitis was the highest since the year 1932. Decreases were recorded in deaths from influenza (54), and malignant diseases (62).

Infantile Deaths.—513 infantile deaths were recorded, compared with 391 in 1935, when a record low rate of 65·38 was established. This year's rate, 86·92, is the highest since 1932, when a rate of 90·76 was recorded. Respiratory and zymotic diseases were the principal factors in the increased mortality. Compared with the previous year pneumonia was responsible for 59 more deaths, bronchitis 13, whooping-cough 11, measles 5, and infantile diarrhoea 8. Other diseases which showed an increased mortality were premature birth with 25 more deaths, and congenital malformations, 15. The group classified as atrophy, debility, and marasmus showed a slight decrease compared with the previous year.

Maternal Mortality.—There was a slight increase in the number of deaths due to pregnancy and parturition, but as the numbers are small, the rate (4·9) should be compared with the average rate (5·74) for the quinquennium, 1931-35.

Tuberculosis Death-rate.—The death-rate from all forms of tuberculosis continues to decline and is the lowest on record.

Infectious Diseases.

The Local Authority have offered facilities for *Immunisation against Diphtheria and Scarlet Fever* for several years, and the response on the part of the public has been disappointing. By a simple and harmless test it is possible to say whether a child is susceptible to these diseases, and, by an equally simple process, it is possible to offer a large measure of protection against them. The County Council provide facilities for this purpose—free of charge in all respects at their own clinics, and free of charge in respect of the materials employed through the family doctor. Children should be tested and protected before they reach school age, and, while there is no suggestion of compulsion, it is a matter deserving the earnest consideration of every thoughtful parent. It is recognised that a large proportion of the child population must be protected before the total number of cases will be reduced, but any mother or father will expect the Public Health Authority to deal with and protect their individual children apart from the question of general immunisation. There is a body of public opinion opposed to artificial inoculation against disease, and, while respecting their views, it is the duty of the Local Authority to inform the people on matters of approved practice—and this is one—leaving the final decision to the individuals concerned. It is proposed during the current year to use films as a means of educating the public.

Tuberculosis.

Arrangements have been made to ensure that the register is a live one. It is a waste of administrative effort to keep patients who have recovered from the disease under unnecessary observation, and it is not fair to label them indefinitely with the stigma of tuberculosis. The standard of diagnosis of pulmonary tuberculosis is based on modern methods of investigation and the Local Authority has provided the necessary facilities, often at considerable cost. They have saved the money in charges for indoor treatment, and have relieved the minds of many who dreaded a diagnosis of suspected consumption.

The death-rate from pulmonary tuberculosis is the lowest on record, and has declined from 8·9 per 10,000, to 3·6 per 10,000 during the past thirty years. Various factors have contributed to this saving of life and suffering, and, without attempting to enumerate or evaluate them, it can be safely said that the work of the County Council has been fully justified. The Tuberculosis Scheme makes an appeal on compassionate grounds, but it must also be an active medical organisation to warrant the annual expenditure. The treatment of pulmonary

tuberculosis has passed through various phases, ranging from the over-optimistic to the completely despondent. It has now reached the stage at which even a cautious observer will say that cures can be obtained in some cases and amelioration in many. There remains, as in all questions of illness, the need for active co-operation by the patient in the treatment of his condition.

Maternity and Child Welfare.

The Maternity Services (Scotland) Bill was presented to Parliament during the course of the year. It was a carefully conceived measure aiming at an improved standard of domiciliary midwifery in Scotland, and the general principles of the Bill were supported by the County Council. A scheme is being prepared to apply the provisions of the Act in the area of the Local Authority, and it will come into operation in 1938. Comprehensive arrangements will be made, but they will not achieve their object unless the fullest use is made of the new service by everybody concerned.

The need for providing additional centres was under consideration, and it was agreed to establish Auxiliary Centres in some of the less populous areas. It is hoped that small communities will be brought into closer touch with the large Centres and Health Institutes by means of these modified Centres.

School Medical Service.

A separate report is published giving the statistics with regard to school health administration for the year ended 31st July, 1936.

Progress has been made in linking up the work of the Child Welfare Scheme with the School Medical Service. Clinics and staffs have been made interchangeable for several purposes, and further action in this direction is anticipated.

Hospital Services.

Further institutional accommodation is required for several purposes. The sick poor should be dealt with otherwise than in poorhouses, and the County Council recognise the need for making some provision for sick persons generally. They have agreed to establish a General Hospital, and reference is made to the proposal in this Report.

One of the smaller Fever Hospitals may be required as an Auxiliary Institution to the General Hospital, and another small Isolation Hospital may be disposed of for other reasons. The accommodation

lost in these transactions will have to be replaced, and, in addition, there is a shortage of beds in the over-all arrangements for the treatment of infectious diseases. The Local Authority may take the opportunity of planning a central Fever Hospital at Motherwell which will ultimately require 250 to 300 new beds. A part of this accommodation will have to be provided at an early date.

The County Council have decided that new and extended accommodation must be made for maternity cases, and, in pursuance of a general policy regarding hospital arrangements, have agreed that this Institution should be established on the same site as the General Hospital for medical and administrative reasons. The new Hospital will be one of 120 beds, capable of extension to 200. The present Maternity Hospital is not a modern institution, but, having regard to the commitments of the County Council and the provisional site chosen for the combined General and Maternity Hospital, its replacement may have to be delayed for some time.

The present state and future developments of the institutional accommodation for tuberculous patients are referred to in this Report, and it is shown that 150 additional beds will be required to complete the scheme of centralisation at Hairmyres.

The programme is a considerable one, and it will have to be spread over many years. A system of priority will be devised, and any arrangements that are made to meet immediate needs will harmonise with a completed scheme. The position is, of course, further complicated by the present state of the building industry.

Housing.

Full details of the work carried out are given in the Report of the County Sanitary Inspector, which is printed as an Appendix to this Report.

The practical problem of the Public Health Department is not to compile lists of properties that should be classified as unfit for human habitation, nor to direct attention to cases of overcrowding. These conditions are well-known and are recorded in registers that are kept up to date. The real difficulty is not to say how many people require new houses but which of the many should get the few that are available. From time to time we are asked to say what degree of priority should be granted on account of illness. Generally speaking, the number of

children under ten years of age in an overcrowded house is a more valuable indication for preferential treatment than conditions of ill-health, with the exception of infectious tuberculosis.

STATISTICS.

The **Area** of the County, inclusive of Small Burghs, was 532,514 acres, made up as follows :—Landward portion of County, 531,935 acres ; Burgh of Biggar, 72 acres ; Burgh of Lanark, 507 acres.

The *density of population* was 0·57 person to the acre.

The estimated population for 1936, according to figures supplied by the Registrar-General, was as follows :—

County of Lanark (Landward),	...	297,356
Burgh of Biggar,	... ..	1,281
Burgh of Lanark,	... ..	6,168
		<hr/>
Total,	... ..	304,805
		<hr/>

The number of **Occupied** and **Unoccupied** Houses as given in the Valuation Roll was 68,381 and 369 respectively, inclusive of Small Burghs, made up as follows :—

	Occupied Houses.	Unoccupied Houses.
County of Lanark (Landward),	66,377	364
Burgh of Biggar,	401	3
Burgh of Lanark,	1,603	2

Statistical Tables.—Table A shows the birth-rate and death-rate per thousand of the population and the infantile deaths per thousand births.

Table B shows the acreage, births, and deaths for the year in each of the District Council Areas and the Burghs of Biggar and Lanark, with the deaths classified according to cause, and Table C shows the deaths classified according to cause and age-periods.

The **Births** registered numbered *5,902—males, 3,022 ; females, 2,880 ; 322 or 5·45 per cent., were illegitimate. The birth-rate per 1,000 of the population was 19·36.

Deaths during 1936 numbered 3,606 as compared with 3,534 in 1935, and gave a death-rate of 11·83 per 1,000. Deaths from respiratory diseases rose from 565 to 597, pneumonia being responsible for 71 deaths more than in the previous year. Decreases in certain groups were recorded as follows :—Malignant diseases, 62 ; influenza, 54.

The deaths of infants under one year numbered 513, which is equivalent to 86·92 deaths per 1,000 births, as compared with 67·42 recorded in 1935. This is the highest rate recorded since 1932. The deaths are referred to in detail in the portion of the Report dealing with Maternity and Child Welfare.

The number of births exceeded the deaths by 2,296, which constitutes the **natural increase** in population.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION. INFANTILE DEATHS PER 1,000 BIRTHS.

Year.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants under 1 Year.	
					Deaths.	Death-rate.
1931	6,350	20·99	3,423	11·31	510	80·31
1932	6,313	20·86	3,764	12·43	573	90·76
1933	5,929	19·46	3,561	11·69	523	88·21
1934	6,078	19·92	3,514	11·51	462	76·01
1935	5,981	19·58	3,534	11·57	391	65·38
Quinquennial Average—						
1931-35	6,094	20·06	3,559	11·71	492	80·70
1936	5,902*	19·36	3,606	11·83	513	86·92

* Corrected figures supplied by Registrar-General.

DEATHS IN INSTITUTIONS IN COUNTY.—721 such deaths were recorded, and 543 of these were allocated to the County.

TABLE B.—Year 1936.—Population, Births and Deaths in each District Council District, &c., with Deaths classified according to cause

[illegible]

Legislation 1889
Legislation 1890

Legislation 1889									
Legislation 1890									
Legislation 1891									
Legislation 1892									
Legislation 1893									
Legislation 1894									
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Legislation 2006									
Legislation 2007									
Legislation 2008									
Legislation 2009									
Legislation 2010									
Legislation 2011									
Legislation 2012									

TABLE C.—Year 1936.—Deaths classified according to cause and age periods, and corrected for Institutions, &c.

Population, 304,805; Acreage, 532,514; Registered Births, (Legitimate, M., 2,858; F., 2,722; Deaths under 1 year, (Legitimate, 489. Illegitimate, M., 164; F., 158; Total, 5,902. Illegitimate, 24.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																				Rates per 1,000 Population.	Registered in Institutions in District.		
					Weeks.					Months.					Years.													
					-1	1-	2-	3-	Total -4	1-	3-	6-	9-	Total -12	1-	5-	10-	15-	25-	35-	45-	55-	65-	75 and over.				
All Causes (Certified, Uncertified, -	3,231 6	600 2	231 2	3,600 6	166	25	24	12	227	101	80	55	49	512 1	156	53	44	145	144	211	320	534	774	707 1	11-8108 0197	721		
Typhoid Fever, -	4	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	1	...	0131	3	
Smallpox, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles, -	22	...	3	19	...	...	...	...	...	1	1	1	4	7	11	1	...	...	...	...	...	...	...	...	...	0623	8
Scarlet Fever, -	9	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	1	...	...	...	...	...	0295	7
Whooping-Cough, -	42	1	...	43	...	...	...	...	...	5	2	6	12	25	17	1	...	...	...	...	...	...	...	...	...	1410	10
Diphtheria, -	23	...	...	23	...	...	...	...	...	...	...	...	...	...	9	7	5	2	...	...	...	...	...	...	...	0754	20
Influenza, -	58	...	...	58	...	...	...	...	...	1	2	...	1	4	1	...	...	5	3	9	5	10	9	12	...	1903	6
Cerebro-Spinal Fever, -	5	3	...	8	...	...	...	...	...	...	2	1	2	5	2	1	...	...	...	...	...	...	...	...	...	0262	5
Erysipelas, -	12	...	...	12	...	...	...	...	...	1	...	...	...	1	...	...	...	...	4	2	2	...	3	...	...	0394	8
Encephalitis Lethargica, -	11	...	4	7	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	2	1	...	...	0230	6
Tetanus, -	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	0033	...
Dysentery, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Infective Jaundice, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Actinomycosis, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Anterior Poliomyelitis, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis, -	124	4	18	110	...	...	...	...	...	...	...	...	1	1	1	...	1	27	27	22	17	12	2	...	...	3609	64
Meningeal Tuberculosis, -	26	7	1	32	...	...	...	...	...	1	1	...	1	3	8	6	3	9	1	1	1	...	...	...	...	1049	20
Abdominal Tuberculosis, -	7	1	1	7	...	...	...	...	...	...	1	...	...	1	3	1	...	...	1	...	...	...	...	...	...	0230	2
Other Tuberculosis, -	8	3	...	11	...	...	...	...	...	...	...	1	...	1	2	...	1	3	2	1	...	...	...	...	...	0361	4
Septicæmia and Pyæmia, -	11	13	...	24	...	...	...	...	...	1	...	...	...	1	2	...	3	2	3	5	1	5	1	1	...	0787	6
Rheumatic Fever, -	11	4	...	15	...	...	...	...	...	...	...	...	...	...	2	3	2	1	2	...	2	2	1	...	...	0492	1
Malignant Disease, -	277	92	15	354	...	...	...	...	...	...	...	...	...	...	...	...	5	15	29	64	85	98	58	...	...	11286	24
Meningitis (Simple), -	15	3	2	16	...	...	...	...	...	1	1	1	2	5	2	1	2	2	1	...	1	1	1	...	...	0524	10
Cerebral Hemorrhage, -	334	34	21	347	...	...	...	...	...	...	...	...	...	...	...	...	...	3	9	30	74	126	105	...	...	11384	42
Other Nervous Diseases, -	102	28	40	90	...	1	...	...	1	2	...	4	2	9	...	1	4	7	9	10	11	18	14	7	...	2952	65
Organic Heart Disease, -	674	51	34	691	...	...	...	...	...	...	...	...	...	...	6	5	5	8	11	23	64	155	236	198	...	22670	76
Other Circulatory Diseases, -	65	10	2	73	1	1	3	10	26	32	2394	13
Bronchitis, -	206	7	5	208	...	...	...	1	1	15	6	3	...	25	4	1	...	5	2	5	12	29	66	59	...	6824	15
Pneumonia (All Forms), -	288	27	23	292	2	2	2	6	12	17	27	25	14	95	37	3	3	14	11	27	25	27	31	19	...	9580	126	
Other Respiratory Diseases, -	32	8	1	39	...	...	1	...	1	2	1	...	2	6	1	2	...	...	1	4	5	8	4	...	...	1280	5
Diabetes, -	34	15	2	47	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	6	5	15	12	7	...	1541	4
Pernicious Anæmia, -	15	4	...	19	1	1	2	5	9	1	...	0623	...
Diseases of Ductless Glands, -	13	8	2	19	...	...	...	...	...	...	1	...	...	1	1	...	1	2	1	...	5	3	4	1	...	0623	2
Appendicitis, Typhlitis, -	1	22	1	22	...	...	...	...	...	...	1	...	...	1	2	2	...	4	4	2	3	2	1	1	...	0721	1
Liver Diseases (not malignant), -	18	12	1	29	3	3	5	12	5	0951	2
Other Digestive Diseases, -	44	56	2	98	...	...	1	...	1	...	1	...	2	4	4	1	1	7	6	7	15	18	21	14	...	3215	3
Nephritis, Bright's Disease, -	65	16	5	76	1	1	1	3	1	3	6	7	9	24	16	5	...	2493	12
Dis. of Genito-Urinary System, -	22	26	1	47	...	...	...	...	...	...	...	2	...	2	2	...	...	1	1	...	5	7	12	17	...	1541	3
Dis. of Female Genital Organs, -	3	3	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	...	1	...	0197	1
Puerperal Sepsis, -	13	...	3	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	6	1	...	...	...	...	0328	12
Diseases and Accidents of Pregnancy, &c., -	18	2	1	19	...	...	...	...	...	...	...	...	...	...	...	...	...	5	6	7	1	...	...	...	...	0623	14
Congenital Hydrocephalus, -	1	...	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	0033	1
Congenital Heart Disease, -	5	...	...	5	1	1	1	...	3	...	...	2	...	5	...	...	...	...	...	...	...	...	...	...	...	0164	...
Other Congenital Malformations, -	19	12	...	31	7	4	2	...	13	8	4	1	...	26	4	...	1	1017	4
Infantile Convulsions, -	25	1	...	26	3	...	1	1	5	9	4	2	1	21	5	0853	...
Diarrhoea (under 2 years), -	40	12	2	50	...	1	3	...	4	11	18	4	4	41	9	1643	10
Premature Birth, -	121	9	1	129	94	10	10	2	116	12	1	129	4232	50
Injury at Birth, -	16	1	...	17	15	1	16	1	17	0557	10
Atrophy, D. and M., -	56	2	1	57	34	3	2	2	41	10	5	...	1	57	1866	15
Atelectasis, -	8	8	7	1	8	0262	1
Suffocation, Overlying, -	1	1	1	0033	...
Rickets, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis. of Early Infancy, -	2	2	...	4	2	1	3	1	...	4	0131	...
Syphilis, -	0033	1
Violence, -	100	63	22	141	1	...	...	...	1	...	...	...	...	1	17	11	3	21	18	13	20	13	12	12	...	4625	7
Suicide, -	15	11	4	29	1	1	7	4	5	4	0721	...
Other Defined Diseases, -	167	18	9	176	1	...	1	5774	22
Ill-defined Diseases, -	47	10	5	52	2	1	3	1	3	11	21	12	...	1706	...
Total, -	3,237	602	233	3,606	166	25	24	12	227	101	81	55	49	513	156	53	44	146	144	211	320	535	776	708	11-8305	721		

PUBLIC INSTITUTIONS SITUATED OUTWITH THE COUNTY WHERE SOME PERSONS BELONGING TO THE COUNTY DIED AND WHOSE DEATHS ARE INCLUDED.

<i>General Hospitals.</i>		<i>Poor Law Institutions.</i>	
Glasgow Royal Infirmary,	241	41 Bothwell Road, Hamilton,	17
Glasgow Western Infirmary,	40	69 Hospital Street, Coatbridge,	7
Glasgow Victoria Infirmary,	26	Others,	18
Edinburgh Royal Infirmary,	27		
Glasgow Sick Children's Hosp.,	63	<i>Nursing Homes,</i>	29
<i>Infectious Diseases Hospitals.</i>			
Ruchill Hospital, Glasgow,	4	<i>All other Institutions,</i>	68
Others,	5		
	406		139
TOTAL, 545.			

INFECTIOUS DISEASES.—The deaths from notifiable and non-notifiable infectious diseases numbered 428, and the following statistics show the deaths and death-rates in the various groups. These figures do not include deaths from tuberculosis or pneumonia.

Year.	Notifiable Infectious Diseases.		Non-Notifiable Infectious Diseases.		Total.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
1936	74	0.24	62	0.20	136	0.44

RESPIRATORY DISEASES.—The deaths during the year numbered 597, and the following statistics show the deaths and death-rates of the various forms over a period of years :—

Year.	Pneumonia.		Bronchitis.		Influenza.		Other Respiratory Diseases.		Total	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
1931	232	0.76	193	0.63	89	0.29	43	0.14	557	1.84
1932	295	0.97	191	0.63	128	0.42	47	0.15	661	2.18
1933	254	0.83	179	0.58	142	0.46	46	0.15	621	2.04
1934	243	0.79	177	0.58	52	0.17	49	0.16	521	1.71
1935	221	0.72	192	0.63	112	0.36	40	0.13	565	1.85
1936	292	0.96	208	0.68	58	0.19	39	0.13	597	1.96

With regard to the 58 deaths from influenza, the disease was complicated with other conditions in 53 of the cases, as follows:—Bronchitis, 5; pneumonia, 24; other respiratory diseases, 2; heart disease, 11; other complications, 11.

MALIGNANT DISEASES.—The deaths falling under this heading numbered 354, as compared with 416 in the previous year. In 278 cases carcinoma was stated as the cause of death; in 16 cases sarcoma; in 8 cases epithelioma; in 52 the nature of the malignant disease was not defined. The following table shows the distribution of the disease according to age and sex, and according to the organs and parts of the body affected:—

Age Period.	Sex.	Buccal Cavity	Digestive System.	Respiratory Tract.	Female Genital Organs.	Breast.	Skin.	Bladder. (female).	Male Genito-Urinary System.	Glands.	Bone.	Brain.	Others.	Total.
—1 year	M.	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—
1-5 years	M.	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—
5-10 „	M.	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—
10-15 „	M.	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—
15-20 „	M.	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—
20-25 „	M.	—	1	1	—	—	—	—	—	—	1	—	—	3
	F.	1	1	—	—	—	—	—	—	—	—	—	—	2
25-30 „	M.	—	2	—	—	—	—	—	—	—	—	—	—	2
	F.	—	2	—	2	—	—	—	—	—	—	—	—	4
30-35 „	M.	—	2	—	—	—	—	—	1	—	—	—	1	4
	F.	—	1	—	3	1	—	—	—	—	—	—	—	5
35-40 „	M.	—	3	3	—	—	1	—	—	—	—	—	—	7
	F.	—	1	—	3	—	—	—	—	—	1	—	1	6
40-45 „	M.	—	5	—	—	—	—	—	—	—	—	—	1	6
	F.	—	5	—	—	4	—	—	—	—	1	—	—	10
45-50 „	M.	—	8	1	—	—	—	—	—	—	—	—	1	10
	F.	—	7	—	4	2	—	—	—	—	—	—	—	13
50-55 „	M.	—	13	4	—	—	—	—	—	—	—	—	—	17
	F.	—	11	—	3	7	—	1	—	—	—	—	2	24
55-60 „	M.	—	8	2	—	—	—	—	2	—	—	—	—	12
	F.	—	14	1	8	2	—	—	—	—	—	—	—	25
60-65 „	M.	3	21	3	—	—	1	—	—	1	—	—	—	26
	F.	—	9	2	—	4	—	1	—	—	—	—	1	16
65-70 „	M.	1	21	3	—	—	—	—	4	—	1	—	2	30
	F.	—	10	2	5	2	2	—	—	—	—	—	1	20
70-75 „	M.	—	14	—	—	—	1	—	5	—	—	—	1	21
	F.	—	13	—	6	3	—	1	—	—	—	—	—	23
75 years & over,	M.	1	16	2	—	—	1	—	6	—	—	—	1	27
	F.	1	24	—	—	3	3	—	—	—	—	—	—	31
All Ages,	M.	5	114	19	—	—	4	—	18	1	2	—	7	170
	F.	2	98	5	36	28	5	3	—	—	2	—	5	181

Diabetes.

Deaths from diabetes numbered 47.

The following table classifies the deaths according to age and sex groups :—

	1-5		5-10		10-15		15-25		25-35		35-45		45-55		55-65		65-75		76+		Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1931, ...	—	—	—	—	—	—	1	1	2	2	—	2	—	3	3	15	5	8	2	2	13	31
1932, ...	—	—	—	—	—	—	—	1	1	3	—	—	3	3	2	12	4	7	—	—	10	26
1933, ...	—	—	—	—	1	1	1	—	1	1	—	1	2	—	4	5	4	9	2	1	15	18
1934, ...	—	—	—	—	—	—	1	—	3	2	1	—	—	5	2	12	4	10	—	4	11	33
1935, ...	—	—	—	—	—	—	1	2	2	—	1	1	2	2	4	10	7	11	1	5	18	31
1936, ...	—	—	—	—	—	1	1	—	—	—	—	6	—	5	1	14	5	7	3	4	10	37

In one of the cases which died during the year, insulin was being supplied by the Local Authority. So far as the other fatal cases are concerned, it was ascertained that, in 10 instances, insulin was being supplied privately or through the County Insurance Committee, and that in 28 other cases no insulin was being administered. No information could be obtained in 8 cases.

SUPPLY OF INSULIN.

Insured persons are entitled to a supply of insulin from the Insurance Committees, whilst those who do not come within the purview of this Authority are dealt with by the County Council, under the Public Health (Amendment) Act, 1925.

The County Scheme is limited to the supply of insulin to persons suffering from diabetes who are deemed to be in necessitous circumstances, and whose treatment is being supervised by a medical practitioner.

The following statistics relate to cases supplied with insulin during the year :—

(a) *Age and Sex*—

														Years.					
1-5		5-10		10-15		15-25		25-35		35-45		45-55		55-65		65-75		Total.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
-	-	1	1	3	-	4	1	2	5	1	8	1	14	1	23	-	13	13	65

(b) *Duration of Treatment*—

Years.									Over 8	Total.
—1	1-2	2-3	3-4	4-5	5-6	6-7	7-8			
12	19	10	9	12	10	3	2	1	78	

(c) *Daily Dose of Insulin*—

Units.								
-10	10-19	20-29	30-39	40-49	50-59	60 and over.	Not stated.	Total.
4	13	20	9	17	6	7	2	78

Note.—Dosage is as stated at a particular date and the figure varies from time to time with different patients.

Results of Treatment.—Information as to the condition of patients at the end of the year was obtained as follows:—Improved, 31; I.S.Q., 25; worse, 5; died, 3. In addition, 3 patients became insured during the year and are now outwith the jurisdiction of the Public Health Department. In 6 other cases insulin treatment was discontinued, it having been found that patients could keep well with a carefully regulated diet. In 5 cases no report was received from the general practitioner in attendance.

SUPPLY OF ADDITIONAL NOURISHMENT.

Applications for additional nourishment by persons suffering from diabetes are dealt with as part of the scheme prepared in accordance with the provisions of the Public Health (Scotland) (Amendment)

Act, 1925. Any person applying for assistance must produce a certificate from his own doctor certifying that he is suffering from diabetes. On receipt of an application the Health Visitor reports on the financial circumstances and on the diet of the applicant, and the Assistant Medical Officer determines from this information whether and to what extent assistance should be granted.

An examination of the diets of diabetic cases shows that the average cost is 16s. per week, and a considerable number of patients qualify for assistance on financial grounds. The granting and continuance of assistance, however, is conditional on the patient being under medical supervision, and adhering to the doctor's instructions, especially those relating to diet. Every patient is expected to possess a detailed diet sheet prescribed by a responsible medical authority and preferably by a general hospital where the patient has been treated as an in-patient or as an out-door case. Additional nourishment is supplied so far as possible in the form of articles of diet that are most likely to be used only by the patient, and unlikely to be bought by him without financial assistance. All diet tables show considerable quantities of vegetables and fruit, and most of them contain bovril or oxo. Butter and eggs are prescribed freely, and milk sparingly.

Patients in receipt of extra food are kept under regular supervision by the Health Visitor. The family income is verified once a month, and the renewal of "lines" authorised by the Assistant Medical Officer. Quantitative estimations of the urinary sugar are made from time to time, and the results communicated to the patient's own doctor. Cases in need of short period observation are admitted to the County Hospital, Motherwell, but hospital accommodation is not available for prolonged treatment.

During the year additional nourishment was supplied in 17 cases. One of these patients died in November, and another in the first week of the current year.

CLINIC FOR DIABETICS.

The question of the provision of a Diabetic Clinic already referred to in the Annual Report for 1931, was again raised towards the close of the year, when a communication was received from the Department of Health referring to the treatment of diabetes.

A limited investigation had been carried out in Lanarkshire by one of the Department's Regional Medical Officers into cases of insured persons suffering from diabetes who were on insulin treatment. This investigation had demonstrated that many diabetic patients were not receiving optimum benefit from insulin treatment on account of lack of adherence to a proper regime and of adequate control of the insulin and dietetic therapy involved.

It was suggested that an enquiry into the matter might indicate the desirability of appointing a part-time specialist and a nurse trained in diabetic dietetics and the more adequate provision of laboratory services.

In a report submitted to the Public Health Committee reference was made to the investigations recorded in the 1931 Annual Report, and to subsequent inquiries relating deaths from diabetes to insulin therapy. These showed that half the patients receiving free insulin defaulted in treatment. From 1932 to 1936, 97 out of 186 persons who died from the disease did not receive insulin. It was offered and refused in some instances; it was omitted for no apparent reason in others; it was only given shortly before death in several cases; and it was not indicated in others.

The position might be summarised thus :—

- (1) The expenditure on the Scheme is not high (about £360 per annum) but it is increasing progressively.
- (2) The administrative procedure for controlling the arrangements is well developed but incomplete.
- (3) The Committee should consider the question of establishing a clinic conducted by a part-time specialist and the appointment of a nurse with suitable qualifications.
- (4) Premises are available at the out-patient department, County Hospital, Motherwell, and laboratory facilities can be provided there or at Hamilton.
- (5) The estimated cost of those additional services is in the region of £400 per annum.

It was agreed to establish a clinic on the lines suggested above, and the details of the Scheme were being arranged at the close of the year.

PREVALENCE OF INFECTIOUS DISEASE.

Plague, Smallpox, Typhus Fever, Relapsing Fever, Malaria, Anthrax, Glanders, Actinomycosis, Cholera, and Polio Encephalitis.

No notification was received in respect of any of these diseases.

Diphtheria and Membranous Croup.

Table D1 shows the cases notified and deaths registered during the past six years, with relative rates.

TABLE D1.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1931	951	29	3.0	3.14	0.9
1932	785	42	5.3	2.59	1.38
1933	790	49	6.2	2.59	1.61
1934	736	35	4.7	2.41	1.15
1935	663	27	4.07	2.17	0.88
<i>Quinquennial Average—</i>					
1931-35	785	36	4.58	2.58	1.18
1936	757	23	3.04	2.48	0.75

After admission to hospital the diagnosis was revised in 208 cases, as follows:—Positive swab (without clinical symptoms), 61; sore throat, 21; scarlet fever, 7; tonsillitis (including enlarged and septic tonsils), 72; laryngitis, 14; naso-pharyngitis, 6; rhinitis, 14; measles, 2; pneumonia, 1; bronchitis, 1; other conditions, 9. In 28 other cases no evidence of the presence of diphtheria could be detected, and in 5 the disease was complicated with other conditions as follows:—Chickenpox, 2; scarlet fever, 2; mumps, 1.

TABLE E—NUMBER OF CASES OF INFECTIOUS SICKNESS RECOGNISED IN EACH DISTRICT COUNCIL AREA DURING 1936.

District Council Area, &c.	Smallpox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Typhoid Fever.	Continued Fever.	Puerperal Fever.	Puerperal Pyrexia.	Cerebro-Spinal Fever.	Acute Anterior Poliomyelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Malaria	Dysentery.	Primary Pneumonia.	Influenza-Pneumonia.	Tetanus.	Encephalitis Iethargica.	Infective Jaundice.	Total
No. I,	...	5	3	30	—	3	—	—	—	1	—	—	5	2	—	1	3	2	—	—	—	55
" II,	...	40	5	68	—	1	—	4	2	—	1	3	4	15	—	—	30	—	—	—	—	173
" III,	...	72	6	51	—	1	—	1	1	2	—	2	10	10	—	—	23	1	—	1	—	181
" IV,	...	35	21	106	—	5	1	7	6	1	3	4	32	41	—	2	111	1	1	2	—	379
" V,	...	116	13	60	—	3	1	4	4	—	—	3	14	21	—	2	78	2	—	—	—	321
" VI,	...	138	56	203	—	5	1	6	13	7	—	7	65	88	—	43	328	6	—	3	—	969
" VII,	...	128	59	82	—	2	1	9	21	2	1	20	32	40	—	1	106	13	1	1	2	521
" VIII,	...	97	40	119	—	14	—	4	4	2	—	11	34	26	—	—	138	11	—	1	—	501
" IX,	...	117	55	138	—	7	—	6	8	1	2	11	71	39	—	6	184	41	2	2	—	690
Burgh of Biggar,	...	—	—	9	—	2	—	—	—	—	—	—	1	—	—	—	—	—	—	1	—	13
" Lanark,	...	9	2	17	—	1	—	—	1	1	—	2	7	3	—	—	19	4	—	—	—	66
Institutional Cases,	—	—	—	—	—	—	—	2	—	—	—	6	—	—	—	6	—	—	—	—	14
Total,	...	757	260	883	—	44	4	41	62	17	7	63	281	285	—	55	1,026	81	4	11	2	3,883

The cases and deaths during each month and at certain age-periods are shown below :—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases,	42	47	57	52	44	35	42	42	60	104	124	108	757
Deaths,	2	—	4	1	1	2	—	3	1	4	2	3	23

Ages.	—1	1-5	5-15	15-25	25-45	45-65	65+	All Ages.
Cases, ...	7	150	486	73	36	4	1	757
Deaths, ...	—	9	12	2	—	—	—	23

The number of cases removed to hospital was 730, or 96·4 per cent. of the total.

Antitoxin was administered by private practitioners to 71 cases prior to their admission to hospital, and to 21 cases which were treated at home. Six cases which were not removed to hospital received no serum, nor was it given to 659 cases before their admission.

During the year 1,108,000 units of antitoxin were supplied through police stations to medical practitioners. In addition to this, practitioners were supplied with 268,000 direct from the Public Health Department or through local dispensaries.

Contact Carriers.—As indicated in previous reports, the routine swabbing of home contacts of cases of diphtheria has been discontinued except in the following circumstances :—

I.—Where any of the contacts (*a*) handle milk or milk utensils or are engaged in food occupations ; (*b*) follow occupations involving contact with children, *e.g.*, teachers, domestic servants, etc.

II.—Where any of the contacts give a history of recent suspicious illness.

III.—On the occurrence of a second case of diphtheria in the household.

As a result of this restriction the number of carriers discovered was reduced to 15. The temporary nature of the "Carrier" state

is shown in the following statement, which sets forth the interval, in days, that elapsed between the first positive and the second negative swab :—

0-7	8-14	15-21	Over 21
13	2	—	—

The distribution of cases and deaths throughout the County is shown in Tables E and B respectively.

Immunisation.

The work of immunisation against diphtheria and scarlet fever was continued during the year. Lectures on the subject continued to be given at the various Child Welfare Centres, and explanatory leaflets were freely distributed. Towards the close of the year a considerable number of cases of diphtheria occurred in Blantyre Parish, and facilities for immunisation were provided at the local Health Institute. So far, the response has been disappointing. The following is a record of the work done during the year :—

SCHICK TEST.

Clinic.	Preliminary Test.		Positives immunised.	Immunised without preliminary testing.	Retest.	
	Positive reaction.	Negative reaction.			Positive.	Negative.
Cambuslang, ...	2	—	2	7	1	3
Shotts, ...	66	40	59	—	1	34
Bellshill, ...	59	23	57	19	8	57
Blantyre, ...	22	7	20	—	—	—
By general practitioners, ...	—	3	—	—	—	—
Total, ...	149	73	138	26	10	94

Number of patients under 5 years, ...	91	} 248
Number of patients 5 to 14 years, ...	148	
Number of patients 15 years and over, ...	9	

DICK TEST.

Clinic.	Preliminary Test.		Positives immunised.	Immunised without preliminary testing.	Retest.	
	Positive reaction.	Negative reaction.			Positive.	Negative.
Cambuslang, ...	1	3	1	—	—	—
Shotts, ...	9	97	5	—	—	3
Bellshill, ...	53	51	31	—	11	34
Blantyre, ...	11	9	11	—	—	—
By general practitioners, ...	4	4	3	—	—	—
	78	164	51	—	11	37

Number of patients under 5 years,	...	84	} 242
Number of patients 5 to 14 years,	...	152	
Number of patients 15 years and over.	...	6	

General Remarks.—Difficulty is sometimes experienced in persuading children who have given a positive reaction to submit to immunisation, and some who have completed the immunisation course do not return for retesting. One case contracted scarlet fever and another cerebro-spinal fever during the course of immunisation.

Twenty-nine children who had been immunised against diphtheria and 2 against scarlet fever in the County Hospital, Motherwell, but who had been discharged from hospital before retesting, were referred to the assistant medical officers who carried out retesting with the following results :—

Schick Retest.—Negative, 15 ; positive, 13 ; refused retest, 1.

Dick Retest.—Negative, 2.

These particulars were reported to the hospital superintendent.

Scarlet Fever.

Table D2 shows the prevalence of scarlet fever during the past six years, with relative rates.

TABLE D2.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1931	1,607	9	0.56	5.31	0.29
1932	2,680	28	1.04	8.85	0.92
1933	2,780	23	0.82	9.12	0.75
1934	1,976	21	1.06	6.47	0.68
1935	1,118	11	0.98	3.66	0.36
<i>Quinquennial Average—</i>					
1931-35	2,032	18	0.88	6.69	0.59
1936	883	9	1.02	2.90	0.29

The number of cases notified continues to show a substantial reduction. The notifications received each month averaged 74, the actual number being above the average in February, March, September, October, November, and December, and below the average for the six remaining months.

The predominating type of disease was mild. No common source of infection was discovered in any particular series of cases, infection being apparently conveyed by personal contact.

The number of cases removed to hospital was 787, or 89.1 per cent. of all the cases notified.

The age-incidence of cases and deaths was :—

Ages.	—1	1-5	5-15	15-25	25-45	45-65	65+	All ages.
Cases, ...	6	246	514	78	34	3	2	883
Deaths, ...	—	4	4	—	1	—	—	9

“Return” Cases.—Thirty-four of the cases discharged from hospital during the year were apparently still capable of carrying infection,

and may have given rise to 39 "return" cases. Of the infecting cases, it was found that in 23 no departure from apparently normal health could be found, 10 had developed a nasal discharge, and 1 a septic throat.

The interval which elapsed between the dismissal from hospital of the infecting cases and the onset of illness in the "return" cases was as follows:—

Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.
26	7	2	4

Altered Diagnoses.—Of the 787 cases admitted to hospital, the diagnosis of scarlet fever was regarded as doubtful in 14 cases, while in 14 no evidence of the presence of scarlet fever could be detected. The diagnosis was revised in 50 other cases, as follows:—Sore throat, 7; rubella, 2; tonsillitis, 11; erythema, 2; measles, 4; rhinitis, 7; diphtheria, 1; otitis media, 1; whooping cough, 1; nephritis, 1; other conditions, 13. In 3 cases the scarlet fever was complicated with chickenpox, in 11 with diphtheria, in 1 measles, in 1 puerperal fever, and in 1 endocarditis.

NOTIFICATION IN RELATION TO HOUSING ACCOMMODATION.

The following statement shows the various sizes of houses from which patients were notified:—

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 Apts.	Over 5 Apts.	Total.
Hospital, ...	108	310	214	83	25	47	787
Home, ...	1	20	26	19	10	20	96
Total,...	109	330	240	102	35	67	883

The distribution of cases is shown in Tables E and B respectively.

Enteric Group.

Table D3 shows the prevalence of typhoid fever during the past six years, with relative rates.

TABLE D3.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1931, ...	21	3	14.28	0.07	0.09
1932, ...	8	2	25.0	0.02	0.06
1933, ...	78	—	—	0.25	—
1934, ...	16	—	—	0.05	—
1935, ...	72	9	12.5	0.23	0.29
<i>Quinquennial Average—</i>					
1931-35, ...	39	3	7.69	0.12	0.09
1936, ...	44	4	9.09	0.14	0.13

The monthly and age-incidence of cases was as follows :—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases, ...	1	3	9	7	2	6	5	5	1	—	1	4	44
Ages.		—1	1-5	5-15	15-25	25-45	45-65	65+	All ages				
Cases, ...	—	1	9	13	13	7	1	44					

Forty-two cases were removed to hospital (including 2 cases admitted as pneumonia, 1 as tubercular meningitis, 2 as dysentery, and 2 as puerperal fever), and in 15 cases the diagnosis was found to require revision. The altered diagnoses were as follows :—Positive agglutination Para. B., 5; pulmonary tuberculosis, 2; abdominal tuberculosis, 1; influenza, 2; duodenal ulcer, 1; cholecystitis, 1; retention of urine, 1; pernicious anaemia, 1; and negative, 1.

Cerebro-Spinal Meningitis.

Seventeen cases; 8 deaths. Fifteen cases were treated in hospital. After observation the diagnosis was revised in 8 cases as follows :—Pneumococcal meningitis, 1 (fatal); enteritis, 1; tuberculous meningitis, 4 (fatal); constipation, 1; hydrocephalus, 1.

Puerperal Fever.

The number of cases notified was 42, and the number of deaths, 10.

The incidence of this disease is dealt with fully in the Maternity and Child Welfare Section of the Report.

Puerperal Pyrexia.

The number of cases notified was 62. The disease is dealt with in detail in the Maternity and Child Welfare Section of the Report.

Erysipelas.

260 cases were notified, and 12 deaths registered; 120 cases were removed to hospital.

Ophthalmia Neonatorum.

Sixty-three cases were notified. The disease is dealt with in the Maternity and Child Welfare Section of the Report.

Pneumonia.

1,107 cases of pneumonia were brought to the notice of the Department, 1,011 cases being notified, and 96 discovered from the Registrars' Returns of Deaths.

542 cases, or 49 per cent., were removed to hospital.

Mortality.—The deaths due to pneumonia numbered *292, giving a fatality-rate of 26·3 per cent., and a death-rate of 0·96 per 1,000 of the population.

The distribution of cases and deaths throughout the year is shown below :—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Spt.	Oct.	Nov.	Dec.	Total.
Cases,	232	122	97	86	82	63	54	48	42	67	78	136	1,107
Deaths,	58	36	23	20	20	15	12	13	13	25	26	31	292

* This figure does not include 24 deaths from Influenzal Pneumonia, such deaths, in accordance with the instructions of the Registrar-General, being included in the Influenza Group.

The age-distribution of cases and deaths, together with the fatality-rate in each group, are given in the following table :—

	All ages.	—1	1-5	5-15	15-25	25-45	45-65	65 and over.
Cases {	Primary, 1,026	211	283	155	86	109	121	61
	Influenzal, 81	3	6	13	12	23	15	9
Total,	1,107	214	289	168	98	132	136	70
Deaths, ...	292	95	37	6	14	38	52	50
Fatality-rate, ...	26·3	44·4	12·8	3·6	14·3	28·8	38·2	71·4

Of the 292 deaths from pneumonia, 50 had taken place before notification was received, 87 occurred in cases which were not notified at all, 22 were secondary pneumonias, and of the remaining 133 the following tabular statement shows the day of illness on which notification was obtained :—

Day of Illness,	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Not stated.	Total.
Fatal Cases Notified,	2	17	18	19	26	16	9	6	5	4	1	—	10	—	133

Information with reference to the day of illness on which each case was notified was recorded in 1,007 cases, as follows :—

Day of Illness,	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Died before Notification.
Cases Notified,	14	78	104	152	147	124	99	54	47	39	21	17	57	54

FACILITIES FOR THE TREATMENT OF PNEUMONIA.

Cases treated at home, 537 ; 164 deaths.

Cases treated in hospital, 570 ; 128 deaths.

Total cases, 1,107 ; 292 deaths.

AGE DISTRIBUTION.

	-1	1-5	5-15	15-25	25-45	45-65	over 65	Total.
Home, ...	127	154	64	31	34	72	55	537
Hospital, ...	87	135	104	67	98	64	15	570
Total, ...	214	289	168	98	132	136	70	1,107

HOUSING CONDITIONS.

Number of Apartments.

	1	2	3	4	5	over 5	Total.
Home, ...	117	212	121	43	12	32	537
Hospital, ...	117	239	137	38	8	31	570
Total, ...	234	451	258	81	20	63	1,107

NURSING ATTENDANT OF CASES TREATED AT HOME.

Mother,	...	...	...	335
Other relative,	...	...	...	127
District Nurse,	...	...	...	41
Private Nurse,	...	...	...	23
Other,	...	...	...	11
				<hr/>
				537

Continued Fever.

Four cases were notified during the year and removed to hospital. The revised diagnoses were as follows:—Pulmonary tuberculosis, 1; pleural effusion, 1; abdominal tuberculosis, 1; and intestinal intoxication, 1.

Undulant Fever.

One case of undulant fever reported during the year presented the following features :—

J. W., male, 31, shepherd. Insidious onset about 1/3/36.

Symptoms.—Headache, backache, night sweating, rigors, fever 100—103° for four weeks. Blood agglutination—*B. abortus* 1 in 4,000.

Source of Infection.—No known infection at source of milk supply.

Acute Anterior Poliomyelitis.

Seven cases were notified, and 6 admitted to hospital. One patient succumbed with meningitis (*staph. aureus*).

Dysentery.

Fifty-five cases were notified and 10 removed to hospital. The following report of an outbreak about the end of year has been prepared :—

DYSENTERY AT KIRKLANDS ASYLUM, BOTHWELL.

Intimation of the outbreak was received on 30/11/36, when the first positive bacteriological result was returned. The first visit was made on that date, when it was found that there were 31 cases of dysenteric illness in the institution. The illnesses were characterised by sudden rise of temperature (from 99° to 102-104°), diarrhoea, general malaise. Many cases complained of abdominal pain; most had mucus in the stools and 6 had blood in the stools. In most cases the temperature subsided in two or three days and the stools soon became formed. Four female cases had relapses after about seven days with rise of temperature and recurrence of diarrhoea, but all subsided quickly. The illnesses were not serious except in the case of very debilitated patients. There have been no deaths so far.

The illnesses were proved due to *B. Dysenteriae* (Flexner) in 35 cases, in 16 by examination of faeces and in 19 by positive agglutination results (1 : 25 or higher titre after a definite clinical illness).

The following table of cases having dysenteric illnesses shows dates of onset :—

Onset.	Total Cases.	Females.	Males.
25/11/36	4	3	1
26/11/36	7	7	—
27/11/36	3	3	—
28/11/36	8	5	3
29/11/36	2	2	—
30/11/36	5	2	3
1/12/36	2	2	—
3/12/36	3	2	1
5/12/36	2	2	—
8/12/36	2	2	—
9/12/36	1	1	—
10/12/36	1	1	—
17/12/36	1	1	—

There were in all 31 female patients, 8 male patients, and 2 kitchen maids affected.

From 25/11/36 to 1/12/36 there were 31 cases, the cases occurring daily. Since 1/12/36 there have been 10 cases with an interval of 7 days between the last two cases. There has been no male case since 3/12/36.

Details of the dormitory and dining arrangements of all suspects were obtained, and those engaged in kitchen work or handling food were noted. Seven of the patient cases were kitchen workers and four were handling food. The only members of the staff affected were two kitchen maids.

Investigation and Source of Infection.

The institution has 136 male and 99 female patients. Thirty-four male patients live and work on a farm near the main building, and

no dysentery cases occurred amongst them. The food for the farm workers is cooked in the main kitchen and distributed from there.

The only members of the staff affected were two kitchen maids who sickened on 27/11/36 and 28/11/36. The maid who sickened on 27/11/36 had a history of slight diarrhoea on 19/10/36. She had a positive agglutination result (1 : 100) on 3/12/36. Two faeces specimens were negative (3/12/36 and 8/12/36).

All kitchen staff and patients working in the kitchen at the time of the outbreak and in the preceding two weeks were investigated. Blood and faeces specimens from all were negative on 2/12/36 (3 patient workers and 2 kitchen maids were cases before this date). Two patients subsequently took ill on 3/12/36 and 9/12/36 and were proved to have dysentery (one by positive faeces on 9/12/36 and the other by positive agglutination (1 : 100) on 16/12/36 after two negative faeces results).

There were 31 female and 8 male cases. There was no common dormitory, day-room, or dining-room factor in the female cases. Five of the first ten female cases were kitchen workers or were handling food. A female patient who had slight elevation of temperature on 22/11/36, but had no diarrhoea or other symptoms, gave a positive agglutination result (1 : 200) on 10/12/36. She had no previous suspicious illness. She did not work in the kitchen or handle food. She did occasional cleaning work in the ward.

Only one of the male cases was not sleeping in the sick ward. One of the sick ward cases was using the common dining-room and male day-room, as was the case sleeping in the north dormitory.

Patients, as well as working in the kitchen and distributing food, are required to do general house cleaning, cleaning lavatories, etc. This, together with the dirty habits of many of the patients, and the fact that many made no complaint till they were found to be fevered or had obvious diarrhoea, made it inevitable that a certain number of cases would arise.

Food and Milk Supplies, etc.

Investigation has not suggested any potential source of infection apart from contamination in the kitchen.

The supply of non-graded milk is distributed in the locality as well as to the Asylum. Investigation of milkers and their families proved negative. An infant, aged 4 months, in one family, had gastro-enteritis for a week before the outbreak. Specimens were negative.

The drainage system is in order and there is nothing to suggest contamination of the water supply.

Previous Diarrhoeal Illnesses.

There was no history of suspicious illnesses among patients or staff in the last few months apart from that of the kitchen maid already referred to. Specimens from cases of diarrhoea have been examined from time to time with negative results.

Precautions Taken.

The two ill kitchen maids were removed to hospital. All proved and suspect cases were satisfactorily isolated from 2/12/36. Additional staff had to be arranged for before this could be done. It was difficult as the institution is of an old type, without sick wards for isolation, and with the dormitory accommodation fully occupied in normal circumstances.

Males and females were separated in the common dining hall.

The institution was closed to visitors during the outbreak. Thorough cleaning and disinfection of all lavatory accommodation and of the kitchen premises were carried out.

Strict precautions were enforced among all kitchen workers those, handling food and the nursing staff. Proved and suspect cases were kept in isolation till two successive negative faeces specimens had been obtained.

The precautionary measures adopted apparently met with success as the outbreak gradually subsided and ceased on 17th December.

Specimens from proved cases who have been freed from isolation will be examined from time to time to detect any possible carrier state.

Encephalitis Lethargica.

Six cases were notified during the year, and 5 others were discovered in the Returns of Deaths. Six cases were admitted to hospital, where the diagnosis was revised in 3 cases, as follows:—Constipation, 1; senile decay, 1; no apparent disease, 1. At the end of the year 51 cases were on record; 33 of these were being treated at home, while institutional treatment was being provided for the 18 others, as follows:—

Omoa House,	...	...	...	...	...	10
Hartwood Asylum (Certified),	...	...	...	...	...	3
Hartwood Asylum (Voluntary),	...	...	...	...	...	3
Birkwood House,	...	...	...	...	...	1
Stobhill Hospital, Glasgow,	...	...	...	...	...	1

None of the cases notified or coming to the knowledge of the Department could be classified as acute encephalitis lethargica. Of the 5 cases discovered in the registrars' returns the duration of illness was as follows:—5 months, 1; 6 years, 1; 12 years, 2; in the fifth case the relatives refused to give any information.

The duration of illness of the three cases in which the diagnosis was not revised was 5 months, 7 years, and 8 years, respectively. In the first name case patient was certified and transferred to a mental institution after six weeks' observation in Omoa House.

Diarrhoeal Diseases.

The number of deaths and the death-rate for the past 6 years were:—

	1931.	1932.	1933.	1934.	1935.	1936.
Deaths,	59	54	42	36	36	50
Death-rate per 1,000,	0·19	0·17	0·13	0·12	0·12	0·16

All the deaths were of children under 2 years, 41 being infants under 1 year, and 9 children from 1 to 2 years.

Measles.

Nineteen deaths, as compared with 4 the previous year. Seven were of infants under 1 year and 11 of children between 1 and 5 years.

Whooping Cough.

Forty-three deaths, as compared with 24 the previous year. Twenty-five of the deaths were of infants under 1 year, and 42 of them were children under 5 years.

Infectious and Contagious Diseases among School Children.

During the year 3,912 cases of non-notifiable infectious diseases were notified by the Executive School Medical Officer and Head Masters, as follows:—

Measles,	1,197	Ringworm,	37
Whooping Cough, ...	374	Itch,	37
Scabies,	221	Impetigo,	584
Conjunctivitis, ...	65	German Measles, ...	96
Eczema,	5	Chickenpox,	484
Mumps,	812		

In all, 7,786 exclusion notices and clearance certificates were issued by the Department. It was not found necessary to recommend the closure of any school or department on account of infectious disease. Eleven cases of scabies received institutional treatment.

Venereal Diseases.

The following statistical statement shows the numbers of fresh County cases dealt with at the various outdoor clinics. Information with regard to in-patient treatment will be found in the report for the County Hospital, Motherwell:—

Centre.	Fresh Cases.						Total Attendances of all cases.	
	Syphilis.		Gonorrhoea.		Others.			
	M.	F.	M.	F.	M.	F.	M.	F.
County Hosp.,								
Motherwell,	19	14	67	9	51	26	3,003	384
Coathill, ...	4	2	7	2	15	4	329	378
Hamilton, ...	4	5	31	2	10	7	3,081	302
Wishaw, ...	4	4	16	3	12	2	1,409	391
Total, ...	31	25	121	16	88	39	7,822	1,455
	56		137		127		9,277	
	320							

Institutions.

During the year 7,592 County patients and 108 patients from areas outwith the County were admitted to the various institutions, making a total of 7,700 admissions. The reports of the respective institutions are printed separately in another section of this Report.

The following statistical tables, F (a) and (b), as shown on pages 35 and 36, give detailed information with regard to the admissions :—

TABLE F.—HOSPITALS AND SANATORIA, (a) PATIENTS ADMITTED FROM COUNTY AREA.
(Admissions as notified.)

HOSPITALS AND SANATORIA.	NATURE OF CASES ADMITTED DURING YEAR.																												
	Cases in Hospital at the beginning of year.	Admitted during year.	Discharged.	Died.	Cases remaining in Hospital at the close of year.	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Cerebro-Spinal Fever.	Puerperal Fever.	Puerperal Pyrexia.	Erysipelas	Pneumonia.	Poliomyelitis.	Pulmonary Tuberculosis.	Tuberculosis, All other forms.	Veneral Diseases.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Measles.	Whooping-cough.	Continued Fever.	Chickenpox	Dysentery.	Other Diseases	Mothers.	Children.	Total.	
Motherwell, ...	123	1,913	1,685	150	201	491	451	27	7	37	46	77	310	4	108	21	57	18	3	74	19	4	3	7	149	—	—	1,913	
Lightburn, ...	66	425	388	43	60	106	139	—	—	—	—	29	143	—	—	1	—	—	—	1	1	—	—	—	—	5	—	—	425
Roadmeetings,	68	440	384	26	98	133	194	5	2	—	—	7	54	—	23	1	—	—	—	2	1	—	—	—	1	17	—	—	440
Shotts, ...	46	85	80	11	40	—	—	—	—	—	—	—	—	—	48	16	—	—	—	—	—	—	—	—	—	21	—	—	85
Stonehouse, ...	81	89	86	4	80	—	—	—	—	—	—	—	—	—	—	77	—	—	—	—	—	—	—	—	—	12	—	—	89
Longriggend, ...	40	94	79	8	47	—	—	—	—	—	—	—	—	—	50	27	—	—	—	—	—	—	—	—	—	17	—	—	94
Hairmyres, ...	165	159	114	21	189	—	—	—	—	—	—	—	—	—	97	62	—	—	—	—	—	—	—	—	—	—	—	—	159
Bellshill, ...	82	3,289	3,212	74	85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,978	1,311	3,289
Calderbank House, 41	592	575	25	33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	397	592
Lanark, ...	17	506	511	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	288	218	506
TOTALS, ...	729	7,592	7,114	362	845	730	784	32	9	37	46	113	807	4	326	205	57	18	3	77	21	4	3	8	221	2,461	1,926	7,592	

TABLE F.—HOSPITALS AND SANATORIA. (b) PATIENTS ADMITTED FROM AREAS OUTWITH THE COUNTY.

AUTHORITY.	COUNTY HOSPITAL, MOTHERWELL.										COUNTY SANATORIA.							BELLSHILL HOSPITAL.		CALDERBANK HOUSE.		LANARK HOSPITAL.		Total.
	Diphtheria.	Scarlet Fever.	Enteric Fever.	Puerperal Fever and Pyrexia.	Pneumonia.	Tuberculosis.	All forms.	Veneral Diseases.	Other Conditions.	Shots.	Stonehouse.	Uppertown.	Hairmyres.	Dalsert.	Roadmeetings.	Mothers.	Children.	Mothers.	Children.	Mothers.	Children.	Mothers.	Children.	
Airdrie,	—	—	9	—	15	1	1	4	—	1	—	3	—	—	—	—	—	—	—	—	—	—	33
Coatbridge,	—	—	12	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14
Hamilton,	—	1	7	3	—	6	6	—	1	—	—	15	—	—	—	—	—	—	—	—	—	—	39
Motherwell and Wishaw,	—	—	—	—	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12
Rutherglen,	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Glasgow,	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Greenock,	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Renfrewshire,	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	4
Inverness,	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Military,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals, ...	1	—	1	28	5	15	21	10	—	2	—	25	—	—	—	—	—	—	—	—	—	—	—	108

TUBERCULOSIS.

The following table shows the pulmonary and non-pulmonary cases remaining on the register at the end of each year, the number of cases notified, and the deaths registered in each year since 1921 :—

Year.	Notified.		Remaining on Register.		Deaths.	
	Pulm.	Non-Pulm.	Pulm.	Non-Pulm.	Pulm.	Non-Pulm.
1921,	469	546	1,102	1,221	176	131
1922,	468	567	1,175	1,408	183	139
1923,	522	551	1,276	1,513	211	145
1924,	525	560	1,462	1,680	171	143
1925,	468	529	1,570	1,848	176	122
1926,	494	548	1,693	1,988	167	112
1927,	422	444	1,534	1,809	159	92
1928,	416	449	1,496	1,789	164	97
1929,	407	372	1,338	1,499	176	80
1930,	437	390	1,340	1,470	176	79
1931,	439	362	1,408	1,485	152	85
1932,	367	332	1,200	1,383	165	76
1933,	340	313	852	1,128	126	68
1934,	316	316	759	1,121	132	51
1935,	264	246	756	1,006	120	48
1936,	281	285	789	956	110	50

Deaths.—The deaths from all forms of tuberculosis numbered 160, viz. :—Pulmonary, 110 ; meningeal, 32 ; abdominal, 7 ; and other forms, 11.

The deaths are classified according to District Council Areas in Table B, and according to age in Table C.

The following table shows the number of persons who died from tuberculosis, with particulars as to the period elapsing between

notification and death, and the number of tuberculosis cases who died from causes other than tuberculosis :—

	Pulmonary.	Non-Pulmonary.
Not notified or notified only at or after death,	20	25
Notified less than 1 month before death, ...	8	12
Notified from 1-3 months before death, ...	13	5
Notified from 3-6 months before death, ...	9	—
Notified from 6-12 months before death, ...	14	2
Notified from 1-2 years before death, ...	12	1
Notified over 2 years before death, ...	34	5
Number of persons who died from Tuberculosis,	110	50
Number of persons suffering from Tuberculosis, who died from other causes, ...	25	5
Total deaths of Tuberculosis cases,	135	55

Ten pulmonary and 1 non-pulmonary cases died within 28 days of discharge from sanatorium, and 24 pulmonary and 2 non-pulmonary cases died more than 28 days after discharge from sanatorium.

New Cases.—The following shows the new cases brought to notice during the year :—

	Pulmonary.	Non-Pulmonary.
New cases notified,	219	183
New cases not notified,	62	102
	281	285

The cases *not notified* were brought to the notice of the Department through the Registrars' Death Returns, Dispensaries, or the Tuberculosis Officers.

The new cases were dealt with as follows :—

	Pulmonary.	Non-Pulmonary.
Admitted to Sanatorium,	152	142
Refused to go to Sanatorium,	35	27
Died before or soon after notification, ...	38	21
Inmates of Asylums, &c.,	5	2
Visitors or left district,	9	2
Unsuitable for institutional treatment, ...	2	4
Waiting treatment towards end of year, ...	5	8
Out-patient treatment at dispensaries and other institutions,	35	79
	<u>281</u>	<u>285</u>

Where a patient receives both sanatorium and out-patient treatment during the year, the sanatorium treatment is shown in the foregoing table in preference to the out-patient treatment.

The *distribution* of cases according to District Council Areas is given in Table E.

The *age incidence* of new cases was as follows :—

PULMONARY.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Males,	3	4	5	46	41	20	24	2	145
Females,	—	2	5	55	37	12	24	1	136

} 281

NON-PULMONARY.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Males,	33	34	26	38	9	5	6	2	153
Females,	27	22	24	30	19	5	4	1	132

} 285

The *types* of the 285 new cases of *non-pulmonary tuberculosis* are classified in the following statement according to the localisation of the principal lesion present at the time of notification :—

Superficial glands, ...	100	†Special organs, ...	11
Abdomen, ...	65	Skin and sub-cutaneous	
*Bones and joints, ...	61	tissue, ...	—
Meninges, ...	44	Lupus, ...	1
General, ...	3		
			<hr/> 285 <hr/>

* *Bones and Joints.*—*Detailed*—Spine, 10; Hip Joint, 20; Knee Joint, 8; Ankle Joint, 6; Dactylitis, 3; Os-calcis, 1; Ribs, 2; Elbow Joint, 4; Shoulder, 1; Sacro-iliac, 3; Sternum, 1; Jaw bone, 1; Malarbone, 1.

† Epididymus, 2; Urinary tract, 4; Eyes, 2; Mastoid, 1; Pyosalpinx 1; Ear, 1.

The *established diagnosis* of new cases is shown in the following tabular statement :—

	Pulmonary.	Per Cent.	Non-Pulmonary.	Per Cent.
Diagnosis of Tuberculosis confirmed, ...	221	79	202	71
Suspected Tuberculosis :—				
Retained on list for further observation, ...	5	2	2	.7
Altered Diagnosis, ...	43	15	74	26
Diagnosis not confirmed, ...	12	4	7	2
	<hr/> 281 <hr/>		<hr/> 285 <hr/>	

Of the 221 pulmonary cases in which diagnosis was confirmed, 9 were under 15 years and 212 were over 15 years.

Of the 202 non-pulmonary cases in which diagnosis was confirmed, 104 were under 15 years and 98 were over 15 years.

The *confirmatory signs* in the 221 cases of verified pulmonary tuberculosis were as follows :—

Spit positive,	129
Spit negative with—	
X-ray positive and other confirmatory signs,	34
Tuberculous pleurisy,	20
Haemoptysis,	1
Clinical examination positive,	8
Death Certificates,	29
	<hr/>
	221
	<hr/>

Sputum examinations were made in 209 cases, or 74 per cent. of the new cases, with positive results in 129 cases and negative results in 80 cases.

No examination of the spit was made in 72 cases, or 26 per cent. of the new cases, for the following reasons :—No spit, 46 ; died before or soon after notification, 16 ; left the district, 2 ; other reasons, 8.

The *housing conditions* of confirmed new cases of pulmonary tuberculosis were as follows :—

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	Over 4 Apts.
Total Cases,	16	80	50	32	21
Bed to Self,	3	26	8	2	1
Room to Self,	—	18	20	23	17
Total number of Contacts,	50	364	228	135	84
Number of Contacts under 5 years of age,	12	35	27	7	5
Number who received In-patient treatment,	13	59	38	21	11
Number who died,	5	21	12	5	5

The number of cases confirmed for pulmonary tuberculosis was 221 ; the above table shows 199, the remaining 22 being institutional cases.

Rehousing of Affected Families.

The County Council have adopted a scheme for the rehousing of families affected by infectious pulmonary tuberculosis.

The housing conditions of all cases of infectious pulmonary tuberculosis are being reviewed and where it is found that the conditions are not suitable the householder is asked if he is willing to be rehoused under the Tuberculosis Scheme. If willing to accept tenancy of a house an application form for tenancy of a County house is completed by the householder. The Tuberculosis Officer reports on the housing conditions of family at time of application, also the prognosis of the case, and whether home treatment is likely to be carried out by the patient.

Applications are classified into groups for purpose of priority :—

Group I, for infectious or parenchymatous tuberculosis.

Group II, for spine, hip joint cases, or cases with discharging sinuses, etc.

Group III, for gland cases, abdominal cases, etc.

The Housing Department is responsible for the letting of Subsidy houses and from time to time allocate a vacant house to the Public Health Department for the rehousing of tuberculous families. The rental fixed is according to the household income and a rough guide is—over £5 per week, full Subsidy rental ; working and under £5 per week, Subsidy rental applicable to a house with one apartment less ; unemployed, the Overcrowding rental. The loss of rental resulting from these reductions is charged against the Tuberculosis Scheme.

Tuberculous families are also being rehoused under the Decrowding and Improvement Schemes and receive a high degree of priority. Real progress is going to be made in this way and the allocations under the Subsidy Scheme may be regarded as a stop-gap.

No. of applications received—200.

No. of houses allocated—29*

No. of cases who have beds and bedding on loan—26.

* 14 Subsidy, 9 Improvement Scheme, and 6 Decrowding Scheme.

Cases on Record.—There were on record at the beginning of the year 756 cases of pulmonary and 1,006 cases of non-pulmonary forms of the disease, and during the year 281 new cases of the former type and 285 new cases of the latter were brought to notice, giving a total of 1,037 and 1,291 cases respectively.

Of the total number of 1,037 pulmonary and 1,291 non-pulmonary cases dealt with throughout the year, the following table shows the changes which took place :—

	Pulmonary.	Non-Pulmonary.
Cases in District on 1/1/36, ...	756	1,006
New Cases,	281	285
Total,	1,037	1,291
Cases removed from Register—		
Died,	135	55
Disease arrested,	19	160
Diagnosis revised,	52	82
Left District,	42	38
	248	335
Cases not yet Confirmed, ...	19	17
Confirmed Cases in District on 31/12/36,	770	939
Total Cases in District, ...	789	956

Statement showing the number of cases on the register in which a diagnosis of tuberculosis has been established as at 31st December, 1936 :—

		NUMBER OF CASES								Total
		Age Groups								
		5 and Under 5	10 and under 10	15 and under 15	25 and under 25	35 and under 35	45 and under 45	65 and upwards		
PULMONARY.*										
A. Sputum not present, ...	Males,	1	2	8	7	3	3	11	—	35
	Females,	—	1	2	17	10	2	—	—	32
Sputum present but not examined, ...	Males,	—	—	—	2	—	1	1	—	4
	Females,	—	—	—	3	1	1	3	1	9
B. Sputum examined :—										
1. Tubercle Bacilli found, ...	Males,	—	—	2	69	86	55	54	3	269
	Females,	—	—	4	91	64	23	22	3	207
2. Tubercle Bacilli never found, ...	Males,	—	—	3	25	23	24	45	6	126
	Females,	—	1	7	28	16	29	6	1	88
Pulmonary Total, ...		1	4	26	242	203	138	142	14	770
NON-PULMONARY.†										
1. Abdominal, ...	Males,	6	9	7	12	3	1	1	—	39
	Females,	2	7	9	16	9	4	—	—	47
2. Spine, ...	Males,	5	12	7	22	4	8	5	1	64
	Females,	3	3	10	11	13	5	6	1	52
3. Bones and Joints (exclusive of Spine), ...	Males,	12	26	22	49	15	5	18	2	149
	Females,	10	14	21	21	12	6	3	2	89
4. Superficial Glands, ...	Males,	29	50	45	33	17	6	4	2	186
	Females,	25	40	48	53	33	15	5	—	219
5. Lupus, ...	Males,	—	1	1	4	3	5	1	—	15
	Females,	—	2	5	5	4	4	1	1	22
6. Other parts or Organs, ...	Males,	—	2	3	4	5	2	5	—	21
	Females,	3	7	4	8	5	6	3	—	36
Non-pulmonary Total, ...		95	173	182	238	123	67	52	9	939
PULMONARY AND NON-PULMONARY TOTAL, ...		96	177	208	480	326	205	194	23	1,709

* Persons suffering from both pulmonary and non-pulmonary tuberculosis included under "Pulmonary" only.

† Persons suffering from multiple lesions classified according to the site of the principal lesion. No case included more than once.

Note.—A patient is retained on the Register in the case of pulmonary tuberculosis for at least five years, and in the case of non-pulmonary for at least three years after complete freedom from symptoms and absence of signs of tuberculosis except such as are compatible with a healed lesion or lesions.

In addition to definite pulmonary and non-pulmonary cases, two other types of case are kept under observation, viz., contacts and suspects. *Contacts* are individuals—mostly children—who have lived in the same household as a spit positive case of pulmonary tuberculosis, and who have shown abnormal symptoms or signs suggestive, but not diagnostic, of tuberculous disease. Healthy contacts are not registered, but are kept under observation at the dispensaries, or by the child welfare and school medical staffs. *Suspects* are children with positive tuberculin reactions and abnormal radiological signs. Children with suspicious symptoms, who do not have these two qualifications, are not registered as suspects, but are kept under observation at the dispensaries for a period not exceeding three months.

The following statement shows that there were on the register at the beginning of the year 303 Contacts and 152 Suspects, and during the year 21 of the former and 32 of the latter type were registered, giving a total of 324 and 184 cases respectively.

The total number of 324 Contacts and 184 Suspects were dealt with throughout the year, and the following table shows the changes which took place :—

CONTACTS AND SUSPECTED TUBERCULOUS CASES, 1936.

				Contacts.	Suspects.
Cases in District, 1/1/36,	...			303	152
New Cases, 1936,	...	...		21	32
				— 324	— 184
Cases removed from Register :—					
Died,	...	...	...	3	3
No active tuberculosis,	...			13	33
Diagnosis revised,	...	...		1	13
Left district,	...	...		8	3
				— 25	— 52
Cases in District, 31/12/36,	...			299	132

X-Ray Examinations.

This type of examination has become part of the routine investigation of all cases of doubtful tuberculosis, and the extent to which the facilities at the County Hospital, Motherwell, are used by the various dispensaries and by Shotts, Longriggend, and Roadmeetings Sanatoria is shown in the following statement :—

Year.	Examinations.	Year.	Examinations.
1921,	40	1929,	550
1922,	110	1930,	682
1923,	147	1931,	861
1924,	165	1932,	1,014
1925,	180	1933,	1,010
1926,	256	1934,	1,309
1927,	450	1935,	1,248
1928,	537	1936,	1,163

Table showing in detail the sources from which recommendations for X-ray examination came :—

Public Health Office and Medical Practitioners,	...	259
Bellshill Dispensary,	... 143	424
Blantyre „	... 37	
Cambuslang „	... 74	
Larkhall „	... 50	
Shotts, „	... 120	
Longriggend Sanatorium,	... 120	422
Shotts, „	... 154	
Roadmeetings „	... 148	
Others, 58	

Supervision of Contacts.

During the year a list of 58 scholars living in direct contact with cases of pulmonary tuberculosis (sputum positive) were submitted to the School Medical Inspection Department. The list showed the names and addresses, the school attended, and the relationship of the contact to the case in each instance.

Treatment.

Institutional Treatment.—The cases admitted and re-admitted to tuberculosis institutions are shown in the following table. No patient was sent to any institution outwith the County :—

		Actual Accommo- dation.	Pulmonary. First Admissions.	Re-admis- sions.	Non-pulmonary. First Admissions.	Re-admis- sions.
Sanatoria,	†Shotts,	53	35	13	15	1
	§Uppertown,	53	33	17	22	5
Orthopaedic,	*Stonehouse,	80	—	—	52	25
Colony,	Hairmyres,	227	66	31	35	27
(Treatment and training).						
Hospital,	Motherwell,	20	10	98	21	—
(Operative treatment and Artificial Pneumothorax).						
—	Lightburn,	—	—	—	1	—
—	Roadmeetings,	24	20	3	—	1

* Total admissions 89—12 being Orthopaedic cases (non-tuberculous).

† Total admissions 85—20 being suspected cases, and 1 Rheumatic carditis.

§ Total admissions 94—17 being suspected cases.

The work at the various institutions dealing with cases of tuberculosis is described by the respective Physician-Superintendents in the institutional reports.

Domiciliary Treatment.—Cases suitable for treatment at home, or who could not for some reason receive institutional treatment, were kept under observation by the Tuberculosis Officers and Nurses, the latter of whom paid 13,570 visits during the course of the year.

During the year 70 cases received additional nourishment in the form of milk, eggs, butcher meat, and butter, at a total estimated cost of £600. In addition, supplies of malt and cod-liver oil were provided for these and other cases.

Six patients were supplied with a single bedstead, mattress and cover, pillows, and blankets. These articles are supplied to patients where proper nursing and care can be carried out at home, and where the patients or relatives are unable to afford the necessary articles. All cases are under strict supervision by the Tuberculosis Officers and nurses, who ensure that patient has "bed to self." At the end of the year 23 cases had bedsteads and bedding in use; 8 air beds and 2 air cushions were also supplied.

Out-Patient Clinics.—Table showing the work done at the clinics :—

				New Cases.	Re-attendances.
COUNTY ORTHOPAEDIC HOSPITAL, STONEHOUSE—					
Minor operations,	...	...	...	11	3
X-ray examinations,	...	...	...	102	40
Consultations,	...	...	...	161	318
Artificial sunlight treatment,	...	...	...	24	3,494
Artificial sunlight dressings,	...	...	...	—	155
Electric treatment,	...	...	...	—	202
Miscellaneous cases,	...	...	...	34	131
HEALTH INSTITUTE, CAMBUSLANG—					
Dressings,	...	...	...	13	48
Artificial sunlight treatment,	...	...	...	18	757
HEALTH INSTITUTE, SHOTTS—					
Dressings,	...	...	...	92	491
Artificial sunlight treatment,	...	...	...	19	671
HEALTH INSTITUTE, BLANTYRE—					
Dressings,	...	...	...	91	299
Artificial sunlight treatment,	...	...	...	18	436
DISTRICT OFFICES, LANARK—					
Artificial Sunlight Treatment,	...	...	...	12	282

Dispensary Treatment.—Five dispensaries—situated at Bellshill, Blantyre, Cambuslang, Larkhall, and Shotts—were in use, and the following table shows the record of work done :—

	New Cases.	Minor Operations.	Re-attendances.
Bellshill,	174	—	1,092
Blantyre,	46	—	880
Cambuslang,	90	8	1,446
Larkhall,	77	—	762
Shotts,	133	—	592
	<hr/> 520 <hr/>	<hr/> 8 <hr/>	<hr/> 4,772 <hr/>

Many cases not notified as tuberculosis were sent to the dispensaries, and the following table shows the source from which they came :—

By whom Sent.	Bellshill.	Blantyre.	Cambuslang.	Larkhall.	Shotts.	Total.	Total.
Sent by Doctors, ...	93	16	44	47	92	292	378
Sent by Public Health Staff,	28	10	15	14	14	81	
Sent by School Medical Department, ...	1	3	—	—	1	5	

Dental Treatment.—Table showing the number of notified cases who were recommended for treatment at Out-patient Clinics :—

Bellshill Dispensary,	11
Blantyre Health Institute,	1
Cambuslang Health Institute,	11
Larkhall Dispensary,	5
Shotts Health Institute,	4

Ear, Nose, and Throat Clinic.—At the 23 sessions held during the year, the first visits paid numbered 19, and the re-visits, 39. Five operations were recommended, of which 3 were performed as follows:—Tonsils and adenoids, 1; Tonsils, 1; Adenoids, 1. Two cases were awaiting operation.

Attendances at the Clinic were recommended from the following sources:—Bellshill Dispensary, 1; Blantyre Dispensary, 1; Cambuslang Dispensary, 5; Larkhall Dispensary, 2; Shotts Dispensary, 3; Shotts Sanatorium, 4; Longriggend Sanatorium, 2; Public Health Staff, 1.

Sillicosis and Asbestosis (Medical Arrangements) Scheme, 1931, and Amendment Scheme, 1934.

No initial examinations in connection with the above scheme were carried out during the year.

INSTITUTIONAL ACCOMMODATION.

The following report has been submitted to the Committee for their consideration:—

“PRESENT INSTITUTIONAL ACCOMMODATION FOR TUBERCULOSIS.”

“The present state of the institutional accommodation for tuberculosis may be briefly reviewed. All the beds are fully occupied—Hairmyres, 235; Stonehouse, 80; Longriggend, 53; Shotts, 53; and Roadmeetings, 20. There is overcrowding at Stonehouse and to a lesser extent at Shotts, Longriggend and Roadmeetings. The waiting list is negligible except for Stonehouse, in which case it numbers from 12 to 18, with an average waiting period of 6 to 8 weeks for patients, many of whom require immediate admission.

“HAIRMYRES.

“(a) *Present Accommodation.*—In considering how the beds at Hairmyres are presently utilised, two important questions of policy arise:—First, 25 beds are occupied by non-County cases (Hamilton, 10; Renfrewshire, 7; Airdrie, 3; Rutherglen, 2; Clydebank, 1; Greenock, 1; and Inverness, 1). Second, 55 patients have been in residence for over 2 years (22 for 2 to 3 years; 7 for 3 to 4 years; and 26 for over 4 years).

" The committee will probably wish to discuss the question of admitting non-County cases. They have adopted a general policy of co-operation with outside authorities, and, having regard to the comprehensive facilities for treatment they are prepared to provide, they may wish to endorse this policy in the treatment of tuberculosis and orthopaedic cases.

" There is a good deal to be said on the subject of prolonged residence in institutions. If the duration of residence is not carefully regulated there is a wastage of beds. The period of residence should be determined on medical—and, to some extent, sociological—grounds, and not by the desire of the patients or parents. The central office should be in a position to adjust the bed accommodation to the waiting list, and, for this purpose, should be able to terminate the treatment of patients who might be suitably dealt with at home. There would be no danger of any person receiving inadequate attention if this procedure were adopted. The Outdoor Medical Staff are fully trained in the assessment of cases and do not lightly favour home treatment in spite of improved housing conditions. Such an arrangement need not interfere with the colony section nor the employment of patients. It would be used only on occasions and would operate by pooling the knowledge of the District Tuberculosis Officers with that of the Institutional Staff.

" I have expressed my views on this matter as it affects the question of what further extensions are to be made at Hairmyres.

" *(b) Centralisation.*—In 1934 the County Council decided to adopt a general policy of concentrating the treatment of all cases of tuberculosis—pulmonary and non-pulmonary—at Hairmyres. This decision was reached after careful consideration of alternative proposals, and it was welcomed by the Department of Health as conducive to the development of an economic and efficient service.

" To give effect to the policy, alterations and extensions have been sanctioned at Hairmyres. The pavilions are being adapted for the treatment of bed cases of pulmonary disease; a new home has been erected with accommodation for 73 nurses; a Treatment Block, designed and equipped for dealing with pulmonary and non-pulmonary tuberculosis and orthopaedic cases, has been provided; and the institutional kitchen has been renovated and re-equipped.

" The accommodation has been adjusted to some extent, and 49 beds have been placed under the control of Dr. Smith, Superintendent of Stonehouse Hospital and Orthopaedic Surgeon on the County Medical Staff.

" *(c) A Pulmonary and Other Section.*—In deciding on a scheme of centralisation it was understood that the process would take place step by step and the ultimate aim should be to group and classify

the wards into a pulmonary section and a section for other cases. The accommodation will form a single institution with the essential services in common, and will be under the general direction of the Superintendent. The two units should be clearly defined, so far as the type of patient admitted is concerned, and different Medical Officers may be responsible for the treatment of different patient-groups as the functions of the institution expand. There is still a stigma attached to the names tuberculosis and sanatorium, and the designation Hairmyres Colony has much to recommend it in this respect. Apart from that, I do not think that non-pulmonary cases should be dealt with side by side with pulmonary cases. The final arrangements should provide separate pavilions for these two classes, and, in the transition period, the accommodation should be so allocated that they are grouped apart. The need for establishing a distinction between pulmonary and other cases of tuberculosis is increased if the local authority should, at some future date, consider the extension of orthopaedic treatment to patients suffering from deformities due to diseases other than tuberculosis, *e.g.*, paralysis, rickets, accidents and rheumatism. It may also happen that future developments will provide accommodation for children suffering from rheumatic heart disease, and it will be necessary to assure parents that their children are not associated in any way with tuberculosis in an infectious form.

" FUTURE DEVELOPMENTS.

" The next step in pursuance of the policy of the County Council will be to transfer Stonehouse patients to Hairmyres, and it is recommended that the new accommodation (80 beds) be provided in accordance with the above-mentioned principles. When this transference has been carried out the extent and location of the orthopaedic section will be fairly well defined.

" The further stages in completion of the scheme will relate to the pulmonary section. The accommodation at Roadmeetings and Shotts/or Longriggend will be vacated and replaced by wards at Hairmyres (provisionally 70 beds). It will be advisable to retain one other institution for the treatment of tuberculous cases. Patients who cannot be dealt with at home may be unsuitable for admission to Hairmyres for special reasons, *e.g.*, they may associate the institution with the death of a relative ; they may have been discharged from Hairmyres for disciplinary reasons ; and so on.

" SUMMARY.

" 1. The policy of the County Council to centralise tuberculosis accommodation at Hairmyres should be pursued.

" 2. The various wards will form a single institution with one Superintendent, but two sections might be defined, *viz.*, one for cases of pulmonary tuberculosis and one for other suitable cases.

" 3. The committee may wish to consider the questions of (a) the treatment of non-County cases, and (b) prolonged residence in institutions.

" 4. The next step towards the completion of the scheme will be the transference of Stonehouse patients to Hairmyres (80 new beds).

" 5. The further stages will be the closing of Roadmeetings and Shotts/or Longriggend (provisionally 70 new beds).

" 6. One other institution should be retained for the treatment of tuberculous patients."

MATERNITY AND CHILD WELFARE.

BIRTHS REGISTERED.—The births registered (corrected for transfers) numbered 5,902—3,022 males and 2,880 females—which is equivalent to a birth-rate of 19·36 per thousand of the population. The illegitimate births numbered 322—164 males and 158 females—which is equal to 5 per cent. of the total births.

BIRTHS NOTIFIED.—The number of statutory notifications received was 5,791.

The sources of notification were as follows :—

Doctors.	Midwives.	Handywomen.	Parents.	Institutions.	Total.
1,548	2,514	14	257	1,458	5,791

In addition, 155 notifications were received as the result of letters addressed to parents; 16 births were discovered from the Returns of the local Registrars, and 30 (including 5 still-births) were brought to the notice of the Department by the Nurse Health Visitors, giving a gross total of 5,992. Of this figure, 5,727 were live-born children, and 265 still-born.

Table M1 shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, and the infantile death-rate, the information being tabulated according to District Council Areas.

Reference to the table shows that 77,934 domiciliary visits were made by the staff during the year. The special visits referred to numbered 11,750, and were made in connection with the following conditions :—Ante-natal cases, 6,739; maternal and infant death enquiries, 116; ophthalmia neonatorum and discharging eyes, 862; squint, 1,378; puerperal fever and pyrexia, 35; adopted babies (first and revisits), 651; ear, nose, and throat, 346; applications for services of midwives, 36; enquiries regarding doctors' and midwives' accounts under the Midwives Acts, 593; hospital admissions, 442; and others, 552.

TABLE M I.

BIRTHS REGISTERED AND NOTIFIED.

VISITS MADE BY NURSE HEALTH VISITORS AND INFANTILE MORTALITY RATES FOR 1936.

DISTRICT COUNCIL AREA.	BIRTHS.			NUMBER OF VISITS.			ATTENDANT AT CONFINEMENT.					INFANT DEATHS.					
	Registered. Legiti- mate.	Notified. Alive. born.		First.	Subsequent. Infants. Mothers.	Special, Total.	Doctor alone or with Handy- woman.	Midwife.	Handy- woman.	B.A. Insti- tution.	Regis- tered.	Rate per 1000 Births					
No. I, ...	107	5	10	4	101	1,012	1	8	1,122	19	56	3	1	—	22	4	35.7
No. II, ...	249	20	75	7	240	1,995	145	294	2,674	88	68	47	2	3	32	14	52.0
No. III, ...	368	19	386	12	367	3,161	19	356	3,903	84	182	16	11	1	73	28	72.3
No. IV, ...	604	51	653	31	701	9,390	143	1,321	11,555	109	165	183	4	11	229	58	88.5
No. V, ...	508	27	532	22	541	5,318	188	1,350	7,397	35	211	141	—	23	131	48	89.7
No. VI, ...	1,114	59	1,177	66	1,206	12,907	710	3,396	18,219	44	384	425	4	17	332	119	101.4
No. VII, ...	771	23	788	46	829	9,908	539	1,203	12,479	368	157	76	14	13	201	69	86.9
No. VIII, ...	588	24	613	33	571	6,181	422	1,758	8,932	162	64	171	—	13	161	59	96.4
No. IX, ...	1,037	48	1,088	41	1,095	7,196	311	1,885	10,487	151	292	306	13	35	298	104	95.8
Biggar Burgh, ...	20	—	20	—	19	228	—	—	247	3	11	—	—	1	4	2	100.0
Lanark Burgh, ...	80	6	85	3	59	650	31	179	919	23	8	16	2	—	10	8	93.0
Total, ...	5,446	282	5,727	265	5,729	57,946	2,509	11,750	77,934	1,086	1,598	1,384	51	117	1,493	513	†89.5
	*5,728		5,992														

* Not corrected for transfers.

Corrected Births Registered—5,902.

† Calculated on the Births corrected for transfers the rate is 86.9 per 1,000 births.

ATTENDANCE AT CONFINEMENT.—Particulars connected with 5,466 live infants have been recorded. Of this number, it has been found that 1,047 (19.1 per cent.) were attended by medical practitioners alone or assisted by neighbours or relatives; 1,535 (28.0 per cent.) by doctors assisted by certified midwives; 1,348 (24.6 per cent.) by certified midwives; 51 (0.9 per cent.) by women not on the Midwives' Roll; 1,380 (25.2 per cent.) occurred in institutions; and in the case of 105 (1.9 per cent.) the births took place before the arrival of an attendant.

Of the 265 still-births notified, particulars of 263 have been recorded, and the attendants at birth in these were as follows:— 39 (14.8 per cent.) by doctors alone or assisted by an unqualified person; 63 (23.9 per cent.) by doctors and midwives; 36 (13.6 per cent.) by midwives alone; 113 (42.9 per cent.) in institutions; and 12 (4.5 per cent.) were born before the arrival of an attendant.

The classification of the attendants at birth is as follows:—

Cases attended by Midwives,	...	...	24.1 per cent.
Do.	Doctors and Midwives,		27.8 „
Do.	Doctors, assisted by neighbours or relatives,		18.9 „
Do.	Handywomen,	...	0.8 „
Do.	Institutions,	...	26.0 „
	B.B.A.,	...	2.0 „

FEEDING AT THE AGE OF SIX MONTHS.—5,606 records, relating to infants born between July, 1935, and June, 1936, were investigated to determine the feeding at the age of six months, and the results are classified as follows:—Wholly breast-fed, 2,381 (42.4 per cent.); partially breast-fed, 327 (5.8 per cent.); artificially fed, 1,993 (35.5 per cent.); died or removed, 786 (14.0 per cent.); and information incomplete, 119 (2.1 per cent.).

INFANTILE MORTALITY.

The deaths of infants under the age of one year numbered 513, which is equivalent to 86.9 per 1,000 births. The infantile mortality rate in each of the District Council Areas is set forth in Table M 1.

Table M II shows the deaths arranged according to group causes and age periods :—

TABLE M II.

Cause of Death.	AGE PERIOD.										Rate per 1,000 Births.
	—1	1-2	2-3	3-4	Total. —4	1-3	3-6	6-9	9-12	Total. —12	
1. Prematurity, ...	94	10	10	2	116	12	1	—	—	129	21.8
Congenital Malformation, ...	7	4	2	—	13	8	4	1	—	26	4.4
Congenital Heart, ...	1	1	1	—	3	—	—	2	—	5	0.8
Atelectasis, ...	7	1	—	—	8	—	—	—	—	8	1.3
Injury at Birth, ...	15	1	—	—	16	1	—	—	—	17	2.8
2. Atrophy, Debility, and Marasmus, ...	34	3	2	2	41	10	5	—	1	57	9.6
3. Diarrhoea, ...	—	1	3	—	4	11	18	4	4	41	6.9
4. Pneumonia, ...	2	2	2	6	12	17	27	25	14	95	16.0
Bronchitis, ...	—	—	—	1	1	15	6	3	—	25	4.2
Other Respiratory Diseases, ...	—	—	1	—	1	2	1	—	2	6	1.0
5. Tuberculosis—											
Meningeal, ...	—	—	—	—	—	1	1	—	1	3	0.5
Abdominal, ...	—	—	—	—	—	—	1	—	—	1	0.1
6. Convulsions, ...	3	—	1	1	5	9	4	2	1	21	3.5
Meningitis, ...	—	—	—	—	—	1	1	1	2	5	0.8
7. Measles, ...	—	—	—	—	—	1	1	1	4	7	1.1
Whooping Cough, ...	—	—	—	—	—	5	2	6	12	25	4.2
Diphtheria, ...	—	—	—	—	—	—	—	—	—	—	—
Erysipelas, ...	—	—	—	—	—	1	—	—	—	1	0.1
8. Syphilis, ...	—	—	—	—	—	—	—	—	—	—	—
9. All Other Causes, ...	3	2	2	—	7	7	9	10	8	41	6.9
	166	25	24	12	227	101	81	55	49	513	86.9
Rate per 1,000 births, ...	28.1	4.2	4.0	2.0	38.4	17.1	13.7	9.3	8.3	86.9	

INVESTIGATION OF MATERNAL DEATHS.

The following Table gives the Maternal Deaths arranged according to Group Causes, Number of Births, Birth-Rates, and Maternal Death-Rates expressed per 1,000 Births.

TABLE M III.

Registered Cause.	Quinquennium, 1926-1930.	Quinquennium, 1931-1935.	1936.
Puerperal Sepsis,	109	88	10
Albuminuria of Pregnancy and Eclampsia,	26	23	5
Haemorrhage,	23	16	2
Cardiac Failure and Shock, ...	11	16	5
Abortion,	5	—	1
Toxaemia of Pregnancy, ...	8	17	2
Other Diseases and Accidents of Pregnancy,	29	15	*4
	<u>211</u>	<u>175</u>	<u>29</u>
Registered Births,	35,150	30,469	5,902
Birth-rate,	22.41	20.06	19.36
Death-rate per 1,000 Births (Puerperal Sepsis), ...	3.10	2.88	1.69
Death-rate per 1,000 Births (excluding Puerperal Sepsis),	2.90	2.85	3.21
Death-rate per 1,000 Births,	6.00	5.74	4.91
*Pulmonary Embolism,			1
Rupture of Uterus,			1
Pernicious vomiting of pregnancy, ...			1
Acute Myocarditis,			1

HOSPITAL TREATMENT AND MATERNAL MORTALITY.

Table M IV gives the total number of births notified, the number of institutional births and maternal deaths, and the institutional confinements and maternal mortality rates per 1,000 births :—

TABLE M IV.

		Total Births Notified.	Institution Births.	Maternal Deaths.	Institution Confinements per 1,000 Births.	Maternal Mortality per 1,000 Births.
1931,	...	6,588	900	41	136.6	6.22
1932,	...	6,534	1,262	39	192.9	5.96
1933,	...	6,214	1,302	29	209.5	4.66
1934,	...	6,333	1,516	40	239.3	6.31
1935,	...	6,137	1,516	26	247.0	4.23
1936,	...	5,992	1,458	29	243.3	4.83

The maternal death-rates for England and Wales, Scotland, and Lanarkshire, are set forth in the following table :—

		1926	1927	1928	1929	1930	1931	1932	1933	1934
England and Wales,	...	4.12	4.11	4.42	4.33	4.40	4.11	4.21	4.51	4.60
Scotland,	...	6.4	6.4	7.0	6.9	6.9	5.9	6.3	5.9	6.2
Lanarkshire,	...	6.78	4.95	6.27	4.73	7.19	6.45	6.17	4.88	6.58

The County rate fluctuates readily from year to year owing to the small numbers involved, and a more stable figure is obtained by calculating the rates on the aggregate deaths and births over 5 years. For the quinquennium, 1926-30, the rate was 6 per 1,000, and for 1931-35 it was 5.74 per 1,000.

Comparison of the rates in Scotland and other countries has to be approached with caution ; differences in allocation of certain causes of death or in the emphasis laid on reproduction as a joint cause of death make it doubtful how far such comparisons are accurate. If

the Scottish rate were calculated on the basis adopted in England it would probably be somewhat lower, but, after making allowances for differences in the method of classifying maternal deaths, it is true to say that the rate in Scotland is substantially higher than the rate in England and Wales.

The death-rates in hospital practice and in domiciliary practice in Lanarkshire are set forth in table on opposite page.

In presenting these statistics the deaths and births over four years are aggregated in an endeavour to avoid the fallacies due to dealing in small numbers. The gross institutional death-rate refers to all women who have been admitted to maternity hospitals and who have died there during the course of treatment from diseases directly due to pregnancy or parturition. In calculating the nett institutional death-rate all cases in which the major part of the confinement or abortion occurred at home were excluded.

STATEMENT SHOWING BIRTHS NOTIFIED, INSTITUTIONAL CONFINEMENTS, MATERNAL MORTALITY RATES AT HOME AND IN INSTITUTIONS.

Year.	Total Births Notified.	Total Institution Births.	Maternal Deaths.	Institution Confinements per 1,000 Births.	*Maternal Deaths at		Deaths in		Deaths of		
					Mortality	Home of	Maternity	Institutions	Nett.	Total	women confined in Bellshill Hospital and died there or at Motherwell Hospital.
					per 1,000 Births (Notified).	women confined home.	of women confined at home.	of women confined at home.	Institution in Bellshill Hospital.	Confinements in Bellshill Hospital.	
1932	6,534	1,262	39	192.9	5.96	20	3	3	16	947	12
1933	6,214	1,302	29	209.5	4.66	13	1	1	15	1,057	11
1934	6,333	1,516	40	239.3	6.31	25	3	3	12	1,211	9
1935	6,137	1,516	26	247.0	4.23	17	—	—	9	1,326	7
	25,218	5,596	134	221.90	5.31	75	7	7	52	4,541	39

* Calculated on births notified which include stillbirths.

	Per 1,000 Notified Confinements.
Uncorrected Domiciliary Death-rate, ...	...
Institutional Death-rate, ...	3.82
Corrected Domiciliary Death-rate, ...	...
Institutional Death-rate, ...	10.54
Bellshill Hospital Death-rate, ...	4.18
	9.64
	8.58

PUERPERAL FEVER AND PUERPERAL PYREXIA.

Puerperal Fever.—The number of notifications of puerperal fever was 41. The exact incidence of the disease may be obtained by adding to this figure 35 cases of puerperal pyrexia finally diagnosed as puerperal fever. The total number, 76, represents a rate of 12·6 per 1,000 births notified. The deaths numbered 10, giving a fatality rate of 13·1 and a death-rate of 1·6 per 1,000 births.

The following table shows the incidence and death-rates according to the attendance at confinement :—

Attendant at Birth.	Births Notified.	Total Cases of Puerperal Fever.	Rate per 1,000 Births.	No. of Deaths.	Fatality Rate.	Death- Rate per 1,000 Births.
Doctor, ...	1,376	17	12·3	1	5·8	0·7
Doctor and Midwife, ...	1,492	22	14·7	3	13·6	2·0
Midwife, ...	1,525	17	11·1	1	5·8	0·6
Institution, ...	1,458	5	3·4	2	40·0	1·3
Handywoman, ...	68	2	29·4	—	—	—
B.B.A., ...	73	3	41·1	—	—	—
Septic Abortion, ...	—	7	—	3	42·8	—
No Information, ...	—	3	—	—	—	—
Totals, ...	5,992	76	12·6	10	13·1	1·6

Hospital Treatment.—72, or 94·7 per cent., of the cases received hospital treatment. All were admitted to the County Fever Hospital, Motherwell.

Puerperal Pyrexia.—The number of cases notified was 62. Of this number 54 notifications were received from medical practitioners; and 6 from the County Hospital, Bellshill; 1 from the Lanark District Mental Hospital, Hartwood; and 1 from Fairhaven Nursing Home. Thirty-five cases were subsequently diagnosed as puerperal fever, and are included in the previous section of the report.

Requests for Medical Consultation.—In 4 instances medical practitioners utilised the services of the Consultant appointed by the Local Authority under the Regulations.

STILL-BIRTHS.

The total number of notifications of still-births received was 265 and the Nurse Health Visitors enquired into 263 of these. The attendance at confinement was as follows :—Doctor alone, or with an unqualified woman, 39 ; doctor and midwife, 63 ; midwife, 36 ; B.B.A., 12 ; and institution cases, 113.

The confinement was ascertained to have been normal in 163 cases and abnormal in 100, instrumental delivery taking place in 63 of the latter.

In 203 instances the probable causes of the still-births are given below, but in the remaining 60 cases no definite reasons were ascertained :—Difficult labour, 34 ; abnormality of head, 11 ; hydramnios, 3 ; placenta praevia, 3 ; congenital malformation, 16 ; maternal ill-health, 6 ; ante-partum haemorrhage, 24 ; albuminuria and toxæmia, 23 ; asphyxia pallida, 1 ; abnormalities of cord, 17 ; prematurity, 26 ; intra uterine death, 16 ; abnormal presentation, 16 ; accident to mother, 7.

OPHTHALMIA NEONATORUM AND DISCHARGING EYES.

Notified Cases of Ophthalmia Neonatorum.—Cases 63 ; rate per 1,000 births, 10·67 ; admissions to hospital, 14.

Of the total cases reported, 45 (71·4 per cent.) were notified by doctors ; 8 (12·7 per cent.) by certified midwives ; 1 (1·6 per cent.) by both doctors and midwives ; 6 (9·5 per cent.) were notified from the County Maternity Hospital, Bellshill ; and 3 (4·7 per cent.) by the nursing staff of the County Public Health Department.

In 23 instances a doctor alone, or with the assistance of a neighbour, was in attendance at the confinement, *i.e.*, the disease developed in connection with 2·11 per cent. of the total number of confinements conducted by doctors. Doctors and midwives were present at the birth in 3 cases, representing 0·18 per cent. of the total cases attended by doctors and midwives. A certified midwife alone was present at the birth in 18 cases, which is 1·30 per cent. of the total midwives'

cases. Fourteen cases occurred in institutions, and in 4 the confinement took place before the arrival of an attendant. No information available in 1 case (house closed).

In the following table the cases are classified according to the severity of the disease and to the bacteriological findings :—

	Slight.	Moderate.	Severe.	Total.
Gonococcal, ...	—	1	—	1
Other organisms, ...	5	6	3	14
Pus, but no organisms, ...	8	6	1	15
No pus, no bacteria, ...	2	—	—	2
No swab, ...	29	2	—	31
	44	15	4	63

Discharging Eyes.—The number of cases of discharging eyes discovered was 94. Six cases were admitted to the County Hospital, Motherwell. The attendant at birth was as follows :—Doctor alone, or with the assistance of a neighbour, 14 ; doctor and midwife, 18 ; midwife alone, 28 ; and born before the arrival of an attendant, 3. In 31 cases the births occurred in Institutions (1 case was afterwards admitted to Calderbank for treatment).

The severity of the condition and the bacteriological findings are shown below :—

	Slight.	Moderate.	Severe.	Total.
Gonococcal, ...	—	—	—	—
Other organisms, ...	25	12	4	41
Pus, but no organisms, ...	15	8	5	28
No pus, no bacteria, ...	8	2	—	10
No swab, ...	14	1	—	15
	62	23	9	94

ANTE-NATAL SUPERVISION.

The Nurse Health Visitors made 6,739 domiciliary visits to expectant mothers during the year. At the Child Welfare Centres, 1,257 patients attended for the first time, and the total visits numbered 2,793.

Ante-Natal Clinics are held at the following Centres :—

Bellshill Hospital, daily except Saturday, ...	10.30 a.m.
Blantyre, Monday,	2.30 p.m.
Shotts, Tuesday,	10.30 a.m.
Cambuslang, Thursday and Friday, ...	2.30 p.m.

The following table shows the number of first and re-visits in connection with ante-natal, post-natal, gynaecological, and other consultations :—

Clinic.	Ante-natal.				Post-natal, Gynaecological and Others.		
	First Visits.				Re-visits.	First Visits.	Re-visits.
	Referred to Ante-natal Wards.	Referred to own Doctor.	Treated at Home.	Total.			
Blantyre, ...	10	1	185	196	674	10	10
Bellshill, ...	73	52	1,123	1,248	2,292	72	30
Cambuslang,	20	6	267	293	1,308	25	20
Shotts, ...	21	2	211	234	3,725	45	80

Further details regarding ante-natal clinics are given in the County Maternity Hospital report, see page 428.

Ante-natal cases were admitted to the various institutions as follows :—County Hospital, Bellshill, 327 ; Calderbank Convalescent Home, 64 ; and Lanark Hospital, 12.

Albuminuria.—The total number of expectant mothers under observation in respect of albuminuria was 306, of whom 256 were confined during the year. Altogether, 5,705 specimens of urine were

examined. Of these, 5,515 were sent to the Child Welfare Centres—5,325 by patients and 190 were submitted by certified midwives. Sixty-eight specimens were examined at the County Laboratory, 63 of these being sent in by midwives and 5 by members of the Public Health Staff.

Confinement Outfits.—618 special outfits prepared at the County Maternity Hospital, Bellshill, were supplied through the various Child Welfare Centres to mothers in necessitous circumstances. The cost of these outfits is 4s. 6d. each, but this charge may be modified in very exceptional circumstances.

HOSPITAL TREATMENT.

Patients are admitted to the County Maternity Hospital, Bellshill, either on account of unsuitable home conditions or because of any abnormality of pregnancy or labour. An analysis of 1,454 admissions shows that 362 (24·9 per cent.) were dealt with on account of housing conditions, 237 (16·3 per cent.) were primiparae, and 855 (58·8 per cent.) had an abnormality of the present or previous pregnancy.

They contribute to the cost of their treatment according to a scale of income. The assessments for the year totalled £2,037, and, of this amount, £1,817 was actually paid. The receipts represent 14·2 per cent. of the annual maintenance charges.

AUXILIARY CHILD WELFARE CENTRES.

The question of providing Child Welfare Centres for small communities was considered towards the end of the year, and it was agreed that modified centres might be established in less populous areas. These Auxiliary Centres will provide for baby weighing, advice by a nurse, and, under suitable control, for the dispensing of medical comforts. They will permit the local Health Visitor to see mothers in the intervals between home visitation. They will relieve the congestion at some of the ordinary centres by cutting down re-visits, and it is hoped they will save mothers undertaking long journeys for a medical consultation that may not be required. They will be linked up with the larger centres, which, in turn, are associated with the Health Institutes.

CHILD WELFARE CENTRES.

Table M V shows the attendances of mothers, infants, and children at the Child Welfare Centres during 1936.

TABLE M V.
TOTAL ATTENDANCES OF MOTHERS, INFANTS, AND CHILDREN AT
THE CHILD WELFARE CENTRES FOR 1936.

Centres.	No. of Sessions.	Total Attendances.		
		Mothers.	Children. Under 1 year.	Over 1 year.
Airdrie,	23	662	378	260
Baillieston,	46	2,877	1,145	1,213
Bellshill,	49	3,206	972	1,383
Bishopbriggs,	48	1,038	496	648
Blantyre,	49	2,174	1,424	1,669
Cadzow,	23	838	372	528
Cambuslang,	48	2,027	789	1,098
Carluke,	23	903	291	608
Chapelhall,	23	584	276	397
Chryston,	48	2,033	810	1,114
Coalburn,	10	359	122	248
Douglas Water,*	12	165	42	141
Larkhall,	45	2,050	691	1,062
Lanark,	23	916	270	611
Newarthill,	48	1,729	1,013	1,322
Newmains,	49	2,737	1,145	1,243
New Stevenston,	48	1,804	1,070	1,359
Shotts,	49	2,191	876	1,549
Strathaven,	23	672	315	438
Tannochside,	45	1,791	1,019	1,263
Uddingston,	46	1,841	760	1,026
		32,597	14,276	19,180

* Centre closed in June, 1936.

MEDICAL CONSULTATIONS.

Table M VI shows the number of sessions held and, the number of first visits and re-visits made by mothers, infants, and children.

TABLE M VI.

Centre.	MOTHERS.						CHILDREN.				
	No. of Sessions.	Ante-natal 1st Visit.	Total.	Post-natal and others. 1st Visit.	Total.		Under 1 year. 1st Visit.	Total.	Over 1 year. 1st Visit.	Total.	
Airdrie, ...	23	53	59	73	111		51	95	53	77	
Baillieston, ...	46	141	232	126	385		92	245	129	307	
Bellshill, ...	49	216	397	230	397		181	413	202	393	
Bishopbriggs, ...	48	28	142	47	177		47	187	76	234	
Blantyre, ...	49	17	21	210	363		171	582	171	415	
Cadzow, ...	23	53	156	55	144		51	203	51	157	
Cambuslang, ...	48	15	23	262	506		215	408	261	457	
Carluke, ...	23	29	60	49	93		48	108	62	138	
Chapelhall, ...	23	43	84	37	77		45	104	53	95	
Chryston, ...	48	69	224	102	260		90	256	107	278	
Coalburn, ...	10	7	9	16	18		20	30	22	28	
Larkhall, ...	45	158	441	140	249		155	391	156	295	
Lanark, ...	23	29	94	50	115		40	88	59	132	
Newarthill, ...	48	49	92	104	187		101	269	93	183	
Newmains, ...	49	77	161	181	317		114	297	162	312	
New Stevenston, ...	48	78	189	108	255		89	214	95	208	
Shotts, ...	49	17	22	138	292		197	414	215	398	
Strathaven, ...	23	25	70	55	133		54	226	46	130	
Tannochside, ...	45	76	145	121	258		107	237	127	254	
Uddingston, ...	46	77	172	105	231		115	261	101	277	
	1,257	2,793	2,209	4,568	1,983		5,028	2,241	4,768		

Infants and Children.—Table M VII shows the illnesses recorded among infants and children, and it should be noted that the figures refer to the number of cases of each disease for which it was considered necessary to consult the doctor. These figures do not correspond with the total attendances, since repeated consultations for the same disease represent only one illness, nor, on the other hand, do they correspond with the first attendances, as a child may have had a re-visit for a new ailment, in which event both illnesses were recorded.

TABLE M VII.
ILLNESSES OF INFANTS AND CHILDREN ATTENDING CENTRES.

Centre.	Gastro-Intestinal.	Intestinal Worms.	Respiratory.	Tuberculosis.	Skin.	Far, Nose, and Throat.	Eyes.	Teeth.	Rickets.	Hernia.	Phthisis.	Anal Protrapse.	Club-foot.	Infantile Paresis.	Injury to Limb.	Cleft Palate.	Others.	Total.
Airdrie, -	28	2	20	—	18	11	13	10	5	4	1	—	1	—	—	—	12	125
Baillieston, -	48	10	63	2	68	—	15	14	13	6	8	—	—	—	—	—	53	300
Bellshill, -	82	5	99	4	69	25	37	13	17	14	9	—	—	—	2	1	102	479
Bishopbriggs, -	31	6	36	1	34	30	14	6	6	8	11	—	—	—	—	—	29	212
Blantyre, -	94	1	56	—	57	38	23	17	20	15	16	—	—	1	—	—	137	475
Cadzow, -	22	3	18	—	20	16	13	4	4	5	4	—	—	1	1	—	35	146
Cambuslang, -	82	10	96	2	79	68	29	15	21	29	14	—	2	—	6	—	126	579
Carluke, -	31	8	17	—	19	9	6	6	4	3	1	—	—	—	1	—	16	121
Chapelhall, -	28	2	29	—	18	11	12	5	—	—	6	—	—	—	1	—	13	125
Chryston, -	18	6	22	—	27	15	9	14	10	2	1	—	—	—	1	—	30	155
Coalburn, -	13	3	6	—	4	3	3	2	2	2	—	—	—	—	—	—	4	42
Douglas Water, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lanark, -	28	6	14	—	11	2	1	11	6	3	2	—	—	—	1	—	22	107
Larkhall, -	88	7	41	—	71	40	26	17	10	21	22	—	—	—	—	1	110	454
Newarthill, -	62	2	72	—	39	42	16	17	4	5	3	—	—	—	—	—	55	317
Newmains, -	56	6	76	—	77	52	20	54	3	11	2	—	—	1	1	—	90	449
New Stevenston, -	50	2	63	—	21	26	11	8	9	2	7	—	—	—	—	—	61	260
Shotts, -	91	11	71	—	88	61	20	33	12	9	15	—	—	1	1	—	169	582
Strathaven, -	22	3	19	1	31	15	15	2	1	7	3	—	—	—	1	—	29	149
Tannochside, -	50	4	83	2	57	18	23	11	4	4	3	—	1	—	1	1	38	300
Uddingston, -	54	3	73	—	49	24	19	10	17	9	11	—	—	—	—	1	46	316
	978	100	974	12	857	506	325	269	168	159	139	—	4	4	17	4	1,177	5,693

Ante-Natal Cases.—During the year 1,257 ante-natal cases (representing 1,475 conditions) were seen at the Child Welfare Centres. These are shown in the following table according to Centres and the conditions found.

Of the above cases, 622 were referred for treatment to the ante-natal wards, 163 were referred to the family doctors, and the remaining 472 received treatment at the Clinics.

TABLE M VIII.
ANTE-NATAL CASES.

Centre.	Normal.	Contracted Pelvis.	Albuminuria.	Hyperemesis.	Hæmorrhage and Threatened Abortion.	Hydræmia.	Leucorrhœa.	Varicose Veins and Hemorrhoids.	Respiratory.	Cardiac.	Gastro-Intestinal.	Dental Caries.	Abdominal Pain.	Previous Abnormality.	Debility.	Others.	Abnormal Presentation.	Total.
Airdrie, -	18	—	3	3	1	—	—	2	2	1	6	1	1	17	2	3	1	61
Baillieston, -	21	—	20	—	2	—	9	11	7	—	12	8	3	2	6	9	1	111
Bellshill, -	107	1	14	—	5	—	2	22	6	1	43	6	1	6	9	10	—	233
Bishopbriggs, -	5	—	11	1	—	1	4	7	5	2	6	1	—	—	6	3	—	52
Blantyre, -	—	—	1	1	2	—	—	—	4	—	1	2	—	1	6	2	—	20
Cadzow, -	10	—	6	—	—	—	2	2	4	4	8	—	3	9	6	10	—	64
Cambuslang, -	3	—	2	—	—	—	—	—	1	—	—	6	—	—	1	3	—	16
Carlisle, -	7	—	2	3	—	—	—	2	1	—	3	2	4	1	2	2	—	29
Chapelhall, -	17	—	5	—	1	—	—	5	3	—	2	1	1	8	2	1	—	46
Chryston, -	15	2	8	—	—	—	6	8	5	1	10	6	3	2	13	16	1	96
Coalburn, -	—	—	—	—	—	—	1	1	—	—	1	2	1	—	—	1	—	7
Douglas Water, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lanark, -	6	—	3	1	—	—	2	6	2	1	10	3	1	1	—	—	—	36
Larkhall, -	31	—	32	5	8	—	6	10	8	4	12	5	9	23	15	20	3	191
Newarthill, -	19	—	3	—	2	—	—	6	2	—	16	1	2	8	4	1	1	65
Newmains, -	13	—	4	—	2	—	1	8	2	3	10	9	9	15	17	14	1	108
New Stevenston, -	31	—	11	3	2	—	—	7	2	1	13	7	—	6	8	3	—	94
Shotts, -	4	—	1	—	1	—	1	1	2	1	—	1	—	4	2	6	—	24
Strathaven, -	11	—	2	—	2	1	—	2	—	—	1	2	1	—	—	7	—	29
Tannochside, -	31	1	9	2	3	—	—	11	3	—	9	5	4	12	8	1	—	99
Uddingston, -	29	—	4	—	1	—	5	12	5	—	6	10	1	11	8	2	—	94
	378	4	141	19	32	2	39	123	64	19	169	78	44	126	115	114	8	1,475

Post-Natal and Other Consultations.—Table M IX shows the post-natal, gynaecological, and other consultations which were made at the various Centres :—

TABLE M IX.																											
POST-NATAL AND OTHER CONSULTATIONS.																											
POST-NATAL.														GYNAECOLOGICAL.										OTHERS.			
CENTRE.	Uterine Displacement.	Cervical Tear.	Leucorrhoea.	Disease of the Breast.	Varicose Veins.	Albuminuria.	Gastro-Intestinal.	Respiratory.	Dental.	Anæmia and Debility.	Others.	Total.	Uterine Displacement.	Cervical Tear.	Endometritis.	Disorders of Menstruation.	Ovarian Pain.	Others.	Total.	Respiratory.	Gastro-Intestinal.	Cystitis and Nephritis.	Dental.	Anæmia and Debility.	Others.	Total.	
Airdrie,	—	—	1	2	—	3	5	1	12	18	5	47	1	—	—	4	—	—	1	6	2	2	—	20	2	2	28
Baillieston,	1	—	11	2	3	6	15	8	21	45	12	124	1	—	—	2	—	—	10	13	2	8	6	25	19	12	72
Bellshill,	—	—	3	3	4	3	10	5	9	66	20	123	1	1	5	3	—	—	6	16	9	6	4	64	25	30	138
Bishopbriggs,	—	—	3	3	1	2	2	—	5	12	11	39	—	—	—	4	—	—	4	8	3	2	2	5	7	12	31
Blantyre,	2	—	2	1	1	15	2	4	38	62	21	148	1	—	—	3	1	—	1	6	4	1	—	59	15	22	101
Cadzow,	1	—	3	1	1	2	2	1	11	16	8	46	1	—	—	2	—	—	4	7	2	—	1	9	6	11	29
Cambuslang,	—	—	9	3	3	13	4	4	26	92	31	185	1	—	1	4	—	—	9	15	14	2	6	39	38	32	131
Carlisle,	—	—	—	3	2	—	7	—	8	2	4	26	1	—	1	2	—	—	—	4	—	3	1	14	2	3	23
Chapelhall,	—	—	—	3	3	6	3	1	10	9	5	40	—	—	—	—	—	—	1	1	—	—	—	1	1	—	2
Chryston,	2	—	6	2	1	3	13	4	15	26	15	87	1	—	—	4	—	—	—	5	7	5	3	12	11	10	48
Coalburn,	—	—	—	1	—	—	—	1	3	4	1	10	—	—	—	1	—	—	—	1	—	—	1	4	—	—	5
Douglas Water,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lanark,	—	—	1	1	1	—	3	3	9	11	9	38	—	—	3	4	—	—	—	7	1	2	—	10	2	4	19
Larkhall,	—	—	2	2	1	1	2	9	17	35	17	86	4	2	—	3	—	—	8	17	3	—	4	20	9	21	57
Newarthill,	—	—	—	1	—	—	7	6	6	43	10	73	1	—	1	2	1	—	4	9	2	1	1	27	5	12	48
Newmains,	1	—	5	5	5	3	2	1	44	48	16	130	4	—	3	8	3	—	3	21	5	1	5	38	10	13	72
New Stevenston,	—	—	3	1	1	4	7	3	4	32	6	61	4	1	3	1	—	—	10	19	3	3	—	19	12	15	52
Shotts,	2	1	3	7	4	3	9	3	35	37	17	121	—	—	4	2	2	—	4	12	1	2	1	46	12	22	84
Strathaven,	—	—	—	—	—	—	1	4	8	10	11	34	1	1	2	1	—	—	1	6	2	—	—	8	4	12	26
Tannochside,	—	—	3	1	5	5	8	3	15	30	10	80	—	3	—	8	—	—	6	17	6	5	2	37	16	17	83
Uddingston,	—	—	4	4	5	—	6	2	11	26	6	64	—	1	1	9	—	—	6	17	3	2	—	33	11	15	64
	9	1	59	46	41	69	108	63	307	624	235	1562	22	9	24	67	7	78	207	69	45	37	490	207	265	1113	

MINOR AILMENTS AND ARTIFICIAL SUNLIGHT TREATMENT AT THE
FOLLOWING CENTRES:—

	MINOR AILMENTS.				ARTIFICIAL SUNLIGHT TREATMENT.						
	Anaemia and Debility.	Mothers. Diseases.	Skin.	Children. Eyes.	Ears.	Others.	New Cases.	Re- New Cases.	Children. attendance.		
Blantyre Health Institute, ...	15	18	30	77	84	49	182	—	28	410	
Cambuslang Health Institute,	15	13	31	102	48	36	95	1	26	460	
Shotts Health Institute, ...	3	1	7	7	4	4	23	6	—	431	
Lanark Child Welfare Centre, ...	—	—	—	—	—	—	—	—	1	66	
Calderbank House (Out-Patient Dept.), ...	—	—	—	—	—	—	—	7	265	13	246

TREATMENT OF SQUINT.

The work in connection with the treatment of squint cases is summarised in the following statement :—

Cases Examined at				First Cases.	Spectacles Prescribed.	Re-examined.
Bellshill,	...	...	...	41	34	118
Blantyre,	...	...	...	15	13	43
Cambuslang,	...	...	...	12	11	35
Shotts,	...	...	...	21	20	26
				89	78	222

DENTAL TREATMENT—MOTHERS AND CHILDREN.

During the year, 968 mothers and 238 children were recommended for dental treatment, and, of these, 754 mothers and 191 children attended the dental surgeons appointed by the Local Authority :—

Centre.	MOTHERS.		CHILDREN.	
	Recommended for Treatment.	Attended Dentist.	Recommended for Treatment.	Attended Dentist.
Airdrie, ...	34	29	10	10
Baillieston, ...	57	49	15	13
Bellshill, ...	92	72	4	4
Bishopbriggs, ...	15	11	5	3
Blantyre, ...	105	73	18	15
Cadzow, ...	23	16	6	5
Cambuslang, ...	86	71	14	13
Carluke, ...	24	22	8	6
Chapelhall, ...	21	15	2	2
Chryston, ...	45	27	13	13
Coalburn, ...	16	13	3	2
Douglas Water, ...	1	1	1	1
Lanark, ...	28	26	19	17
Larkhall, ...	43	33	16	10
Newarthill, ...	27	27	11	10
Newmains, ...	97	80	49	42
New Stevenston, ...	32	24	5	2
Shotts, ...	88	70	26	12
Strathaven, ...	19	13	—	—
Tannochside, ...	57	39	7	5
Uddingston, ...	58	43	6	6
	968	754	238	191

EAR, NOSE, AND THROAT AILMENTS.

No. of Sessions.	No. of 1st Visits.	No. of Re-visits.	Operations Recommended.	Operations Performed.
23	159	152	123	112

The operations performed were as follows :—

Tonsils and Adenoids,	111
Adenoids and Incision of Membrana Tympani,	1

In addition, 5 patients receiving in-patient treatment in Calderbank House had operations, as follows :—Tonsils and adenoids, 1 ; tonsils, 2 ; adenoids, 2.

EDUCATIONAL WORK.

The following Demonstrations and Lectures were given at the various Centres during the year :—

Centre.	Demonstrations.		Lectures.
	Dressmaking.	Cookery.	
Airdrie,	—	—	2
Baillieston,	11	11	2
Bellshill,	23	13	4
Bishopbriggs,	9	9	—
Blantyre,	11	12	1
Cadzow,	—	—	2
Cambuslang,	22	11	2
Carluke,	10	11	3
Chapelhall,	11	—	2
Chryston,	11	11	2
Coalburn,	6	—	2
Lanark,	12	—	3
Larkhall,	9	10	3
Newarthill,	12	12	2
Newmains,	10	10	2
New Stevenston,	11	12	—
Shotts,	10	12	5
Strathaven,	—	—	2
Tannochside,	12	11	2
Uddingston,	10	11	3
	200	156	44

The Lectures included the following subjects :—

Whooping Cough,	10
Ante-natal Care,	9
Weaning,	3
Infectious Diseases,	2
Poulticing,	6
Pregnancy,	3
Feeding,	10
Sleep,	1
Total,	44

STATEMENT showing Quantity and Cost of Milk, Milk Substitutes and other Food supplied under Maternity and Child Welfare Scheme to Expectant and Nursing Mothers and Children under Five Years of Age during the Years ended 31st December, 1935, and 1936.

	Year 1935.		Year 1936.	
	Mothers.	Children.	Mothers.	Children.
1. No. of persons supplied with liquid milk, dried milk, milk substitutes and other food preparations,	3,093	2,163	2,867	2,530
2. Liquid milk. Total quantity supplied (galls.),	24,214	193	24,577	172
3. Dried milk and other milk substitutes,	414 lbs.		707 lbs.	
4. Other food preparations—				
Oatmeal,	52,711 lbs.		53,416 lbs.	
Virol,	2,334 $\frac{3}{4}$ lbs.		2,864 $\frac{1}{4}$ lbs.	
Virolax,	486 lbs.		390 lbs.	
Malt and Oil,	1,812 lbs.		2,252 lbs.	
Cod Liver Oil Emulsion,	187 galls.		224 galls.	
Others,	109 lbs.		115 lbs.	
5. Total cost to Local Authority, under Heads 2, 3, and 4),	<div> <div>(2)</div> <div>(3)</div> <div>(4)</div> </div> <div> £2,441 3 6 31 1 0 910 5 9$\frac{1}{2}$ </div>			<div>£2,474 18 3 53 0 6 966 9 2$\frac{1}{2}$</div>
Total,	£3,382 10 3 $\frac{1}{2}$		£3,494 7 11 $\frac{1}{2}$	
Amount recovered by Local Authority,	35 11 9 $\frac{1}{2}$		41 10 1 $\frac{1}{2}$	
Net Cost,	£3,346 18 6		£3,452 17 10	

BOARDED-OUT CHILD.

The child, R. M., Cambuslang, referred to in the 1934 Report, was again boarded out from 23/1/36 to 5/3/36 during the mother's absence in a County Sanatorium. A payment of 9s. 6d. per week was made by the Local Authority for the maintenance of the child.

CHILDREN AND YOUNG PERSONS (SCOTLAND) ACTS, 1908 TO 1932.

In the following paragraph the statutory notices received throughout the year are recorded :—

Children on Infant Protection Register at 31st December, 1935,	102
Notices received in terms of Section 1 (1) of the 1908 Act, as amended by Section 59 (1) of the 1932 Act,	42
Notices received in terms of Section 59 (3) of the 1932 Act,	—
Notices received from guardians on removal to the area of the Council from the area of another Authority,	2
	<hr/> 146 <hr/>

Notices received under Section 1 (5) of the 1908 Act :—

Of deaths of Children,	2
Of removals of Children,	9
Removals, under Section 61 of the 1932 Act, of Children improperly kept,	—
Children otherwise removed from Register—	
(a) On attaining the age of nine years, . . .	9
(b) On Guardians' removal from area of Council,	2
(c) For other reasons,	*24
Children on Register at 31st December, 1936, . . .	100
	<hr/> 146 <hr/>

* Returned to mother, 14; legally adopted, 9. In one case the foster parent died and the child was removed to the care of another party without payment.

Throughout the year 374 visits were made by the Infant Protection Visitors. The reports indicate that all the children have received good homes, and are well cared for.

DISTRICT NURSING ASSOCIATIONS.

A list of the District Nursing Associations engaged in the Maternity and Child Welfare Work is given in the following statement, which also shows the number of visits for the year and the remuneration paid by the Local Authority :—

	Number of Births.	Number of First Visits.	Number of Re-visits.	Total Visits.	Fee Paid.
Motherwell and District,	8	8	175	183	£25
Glenboig,	91	90	879	969	25
Caldercruix,	94	94	531	625	20
Stonehouse,	56	56	621	677	15
Quarter,	28	28	382	410	25
Bothwell,	36	36	561	597	20
Glasford, Visitation, Maternity work, } (less fees paid by patients)	17	19	446	465	{ 20 15
Biggar,	45	45	590	635	20
Forth and District, ...	83	87	1,043	1,130	25
Crawford,	17	18	247	265	26
Lesmahagow,	43	40	464	504	25
Carmichael, Anstruther,	19	19	202	221	15
Carnwath,	28	24	339	363	15
Leadhills,	7	6	97	103	10
Blantyre,	Assistance at Child Welfare Centre,			£10 10/-	

MIDWIVES AND MATERNITY HOMES (SCOTLAND) ACTS, 1915 AND 1927.

Practising Midwives.—During the year 171 certified midwives (105 resident within and 66 resident outwith the County) notified their intention to practise. A list of these midwives was forwarded to the Central Midwives Board on 20th January, 1937.

The qualifications of the practising midwives are as follows :—

	1936.
Certificate of the Central Midwives' Board (Scotland),	82
Certificate of the Central Midwives' Board (England),	4
Trained and Certified by the Royal Maternity Hospital (Glasgow), ...	8
Trained and Certified by the Rotunda Hospital (Dublin),	1
In <i>bona fide</i> practice and certified under the Act,	76
	<hr/> 171 <hr/>

The above indicates that 95 (55·5 per cent.) of the midwives are trained and 76 (44·4 per cent.) untrained.

The distribution of the practising midwives according to District Council Areas is as follows :—

District Council Area.	Number of Midwives.	District Council Area.	Number of Midwives.
No. I,	1	No. VII,	10
No. II,	4	No. VIII,	9
No. III,	2	No. IX,	21
No. IV,	21	Lanark Burgh,	2
No. V,	7	Resident outwith County,	66
No. VI,	28		
		Total,	<hr/> 171 <hr/>

Change of Address.—The changes of address of 16 midwives were reported to the Board.

Deaths.—Two midwives died during the year (C.M.B. Numbers 966 and 2070).

Inspection of Midwives.—The routine inspection of midwives resident in the County numbered 379. In addition, 81 special inspections were made on account of non-compliance with the rules. It was found that 4 midwives had no scissors, and 6 had not supplied themselves with thermometers. The Inspectors reported that in 9 instances the charts were not correctly kept.

Attendance at Confinements.—The number of births notified as having been attended by certified midwives was 1,525, which represents 25·4 per cent.

Attendance by Unqualified Persons.—In 68 instances an unqualified person conducted the confinement. In 60 cases it was found that the attendance had been given in emergency and no further action was necessary. There was apparent irregularity in 8 cases, and the women concerned were interviewed by the Assistant Medical Officers of Health.

Infantile Deaths.—The total number of infantile deaths was 513. In 180 instances the deaths occurred in infants during the first ten days, and 27 of these were in the practice of certified midwives. The causes of death were as follows :—Premature birth, 98 ; debility, 35 ; injury at birth, 15 ; atelectasis, 8 ; infantile convulsions, 3 ; congenital heart, 2 ; congenital malformation, 10 ; pneumonia, 2 ; violence, 1 ; whooping cough, 1 ; bronchitis, 1 ; and others, 4.

Ophthalmia Neonatorum.—There were 63 notified cases of ophthalmia, 18 of these occurring in the practice of certified midwives. In addition, 94 cases of discharging eyes were detected by the Health Visiting Staff, and 18 of these occurred among midwives' cases.

Puerperal Fever and Pyrexia.—The total number of cases notified was 103, and 19 of these occurred in the practice of midwives. There were 17 deaths, 3 of which related to midwives' cases.

Still-births.—The total number of still-births was 265, 36 of these being midwives' cases.

Examination of Urine.—Sixty-eight specimens of urine were sent to the County Laboratory by certified midwives, 37 giving a positive result. At the Child Welfare Centres 190 specimens were submitted by certified midwives, and of these 21 proved positive.

Liability to be a Source of Infection.—Nineteen notifications were received from midwives, as follows :—Puerperal fever, 7 ; puerperal pyrexia, 5 ; scarlet fever, 3 ; and measles, 4.

Notification of Death.—Three notifications of the deaths of infants were received.

Form of having Laid out a Dead Body.—Thirteen notifications were received, 10 for infants and 3 for mothers.

Form of Notification of Artificial Feeding.—Nine notifications were received that midwives had advised mothers to substitute bottle feeding for breast feeding.

Notification of Patients' Failure to Follow Advice.—Forty notifications were received regarding patients who failed either to seek medical advice or avail themselves of the pre-natal services provided by the Local Authority.

Provision of Midwifery Attendance in Necessitous Cases.—The Local Authority authorised the attendance of certified midwives at 144 confinements of women in necessitous circumstances, and fees of £1 5s. each were paid for the services rendered.

In 12 instances medical practitioners were requested to attend in districts where there were no resident midwives, and a fee of £2 2s. was paid in each case.

Compensatory Fees.—In 41 instances, where certified midwives either called in doctors or referred their patients to a Child Welfare Centre, and the patients were subsequently removed to the County Maternity Hospital for confinement, a fee of 10s. each was paid.

Medical Assistance.—Medical aid was sought by midwives in 869 instances, representing 62·8 per cent. of the births attended by certified midwives. The conditions for which assistance was obtained are detailed in Table M X.

Payment of Doctors' Claims.—The claims sent in by medical practitioners under Section 22 of the 1915 Act, as amended by Section 4 of the 1927 Act, numbered 781, representing 87·5 per cent. of the cases to which they had been called, and amounted to £1,223 5s. 3d. Of the total expenditure, £17 15s. 6d. or 1·4 per cent. was recovered.

TABLE M X.

Year	Births attended by Midwives	Medical Assistance Forms received	Percentage of Midwives' cases requiring Medical Assistance	Doctors' Claims		Amount of Account	Recovery recommended			Amount recovered			Per cent
				No	Per cent.		£	s.	d.	£	s.	d.	
1931	1,872	866	46·2	630	72·7	944 6 0	82	18	0	34	10	0	3·6
1932	1,790	912	50·9	704	77·1	1,106 14 6	52	6	0	30	8	11	2·7
1933	1,536	906	58·9	659	72·7	1,028 12 9	42	18	6	28	7	6	2·7
1934	1,582	920	58·1	705	76·6	1,110 0 0	79	0	0	18	1	6	1·6
1935	1,410	888	62·9	625	70·3	959 17 6	45	1	6	11	11	0	1·1
1936	1,384	869	62·7	781	87·5	1,223 5 3	44	18	0	17	15	6	1·4

Records of sending for medical assistance classified according to District Council Areas and the conditions requiring medical aid :—

TABLE M XI.

Reasons for Medical Assistance.	DISTRICT COUNCIL DISTRICTS.									Total during	
	No. II	No. III	No. IV	No. V	No. VI	No. VII	No. VIII	No. IX	1936.	1935.	
<i>Mother—</i>											
Prolonged Labour, ...	7	—	29	130	94	13	12	52	337	316	
Contracted Pelvis, ...	—	—	—	1	5	—	1	4	11	21	
Uterine Inertia, ...	—	—	—	4	50	4	2	14	74	58	
Abnormal Presentation, ...	—	—	4	15	36	4	4	13	76	92	
Prolapsed Cord, ...	—	—	—	—	—	—	1	7	8	3	
Placenta Praevia, ...	—	—	—	—	1	1	—	1	3	4	
Ante-partum Haemorrhage, ...	—	—	—	9	17	—	1	1	28	32	
Post-partum Haemorrhage, ...	—	—	—	1	5	1	—	3	10	17	
Haemorrhage (unqualified), ...	1	—	—	3	8	2	—	1	15	18	
Retained Placenta or Membranes, ...	1	1	2	3	7	2	1	6	23	19	
Hydramnios, ...	—	—	—	—	3	—	—	—	3	1	
Eclampsia and Convulsions, ...	—	—	—	—	2	1	—	—	3	7	
Albuminuria, ...	—	—	—	—	5	—	4	1	10	6	
Torn Perineum, ...	3	—	4	10	47	2	8	24	98	99	
Abortion (actual or threatened), ...	—	—	—	2	5	—	—	10	17	18	
Pyrexia, ...	—	—	—	6	6	1	1	1	15	14	
Phlebitis, ...	—	—	—	—	—	—	—	—	—	1	
Excessive Vomiting, ...	—	—	—	—	—	—	—	1	1	3	
Debility and extreme weakness, ...	—	—	—	6	7	1	3	—	17	20	
Oedema, ...	1	—	1	3	1	—	—	—	6	4	
Other Defined Causes, ...	—	—	—	3	5	1	—	3	12	20	
Ill-defined Causes, ...	2	—	—	7	5	1	2	5	22	19	
<i>Child—</i>											
Still-birth, ...	—	—	2	—	6	1	5	4	18	15	
Premature Child, ...	—	—	—	4	4	—	1	5	14	36	
Ophthalmia Neonatorum, ...	—	—	—	—	—	—	1	—	1	6	
Discharging Eyes, ...	1	—	1	5	1	1	3	6	18	11	
Congenital Malformation, ...	—	—	—	—	1	—	1	—	2	4	
Spina Bifida, ...	—	—	—	—	2	—	—	—	2	3	
Convulsions, ...	—	—	—	—	—	—	2	—	2	—	
Debility and extreme weakness, ...	—	—	—	3	2	—	3	—	8	7	
Skin Condition, ...	—	—	—	—	—	—	—	—	—	2	
Death of Infant, ...	—	—	—	—	—	—	—	—	—	1	
Others, ...	—	—	1	6	—	—	2	6	15	11	
	16	1	44	221	325	36	58	168	869	888	

MATERNITY HOMES.

The following three Maternity Homes were inspected and found to be kept satisfactorily.

(1) Fairhaven, Lanark.—Seventy-seven confinements were conducted, 68 by a doctor and 9 by the Matron. There were two infantile deaths and one still-birth. One patient was removed to the County Hospital, Motherwell, on account of puerperal pyrexia.

(2) Limekilns, East Kilbride.—No cases.

(3) 9 Langshaw Crescent, Carlisle.—No cases.

The Nursing Home at 35 St. Blane's Drive, Bankhead, Rutherglen, has been discontinued, the person who carried on this Home having removed from the district.

GENERAL HOSPITAL.

The question of providing a General Hospital for Lanarkshire was the subject of discussion and negotiation with the Burghal Authorities.

The County Council have in view an Institution of 300 or 400 beds capable of expansion to 700. They have kept before them their own requirements for a new Maternity Hospital, and have agreed that the two Institutions should be built on the same site for medical and administrative reasons. The site will be accessible to the County as a whole, having due regard to the possible needs of the Burghs, and it will be reasonably near Glasgow for the convenience of the specialist staff. The purpose of the Institution is to provide accommodation for the sick poor who are in need of special hospital treatment, and for sick persons generally who are suffering from such illnesses as the hospital authority may be able to deal with from time to time. It is anticipated that the sick poor presently accommodated in poor-houses will be admitted to the General Hospital and classified according to their needs. Patients not requiring active medical or nursing treatment will be transferred to an Auxiliary Institution which would be an integral part of the hospital system.

The Institution will be designed, equipped, and staffed as a modern general hospital. It will ultimately have a medical and surgical side for acute and chronic illnesses; a composite block for the treatment of special diseases; an orthopaedic unit (including a clinic for the treatment of fractures and other accidents); and an observation ward for early mental illnesses. The out-patient department will take the form of a modern diagnostic centre and will provide only special forms of treatment. The Hospital will be a training school for nurses, and, it is hoped, for medical students.

It will not compete with the large voluntary hospitals but will co-operate with these institutions and with all other agencies—Local Authority or otherwise—dealing with sickness and ill-health.

MEDICAL CARE AND NURSING OF SICK POOR.

The number of persons who received outdoor medical relief in the Council's area is not available, but there were approximately 17,000 persons on the Poor Law Roll liable to receive medical relief.

The number of County poor persons who received medical treatment in Poor Law Institutions was as follows :—

Institution.	Admitted.	Discharged.	Died.
Omoa House,	262	212	53
Crosslaw Home,	43	32	14
Thrashbush Home,	23	17	3
Old Monkland Home,	27	20	5
Hamilton Home,	118	59	29
Total,	473	340	104

In addition to the above, 227 cases were admitted to City of Glasgow Institutions for whom the County of Lanark admitted liability.

The Annual Reports of the Medical Officers of Omoa House and Crosslaw Home are printed as Appendices to this report, pages 441 and 444. Thrashbush Home, Old Monkland Home and Hamilton Home are combined institutions, and are dealt with by the Medical Officers of the Burghs concerned.

The question of the provision of a General Hospital to deal with sick poor persons requiring institutional treatment instead of treating them as at present in wards set aside in the various Poor Law Institutions is still under consideration.

The scheme for the domiciliary medical care of the sick poor approved by the County Council in 1935 is printed on pages 99-101 of the 1935 report.

MILK (SPECIAL DESIGNATIONS) ORDERS (SCOTLAND), 1930 and 1936.

On 31st December, 1936, the number of licence-holders in the County of Lanark was as follows :—

Producer's Licence—

Certified milk, ...	...	...	...	...	...	18
Tuberculin Tested milk,	...	...	...	...	...	53
Standard milk,	...	...	...	...	...	3
Pasteurised milk,	...	...	...	...	...	1

Dealer's Licence—

Certified milk, ...	...	...	...	...	...	4
Certified milk and Tuberculin Tested milk,	...	...	...	...	...	6
Certified milk, Tuberculin Tested milk and Pasteurised milk,	...	...	...	...	...	1
Tuberculin Tested milk,	...	...	...	...	...	16
Tuberculin Tested milk and Pasteurised milk,	...	...	...	...	...	1
Pasteurised milk,	...	...	...	...	...	10

The list of licence-holders with tubercle-free herds is given in the report of the County Veterinary Inspector, and shows the average number of animals in the herd and the estimated number of gallons of milk produced per annum.

The Milk (Special Designations) Order (Scotland), 1936, came into operation on 1st October. This Order supersedes those of 1930 and 1935. The new designations are "Certified," "Tuberculin Tested," "Standard," and "Pasteurised," but it is doubtful if these names are yet sufficiently simple for the ordinary consumer. Sterilisation of bottles and other containers by steam is now required. "Certified" milk must be cooled to 50°F., and "Tuberculin Tested" milk to 60°F.

The following table gives the results of bacteriological examination of samples of graded milk taken during the year :—

	No. of Bacteria per ml.		Certified.	Tuber- culin Tested.	Grade A or Standard.	Pasteur- ised.	Grade A Pasteur- ised.	T.T. Pasteur- ised.
Under	1,000	...	7	—	—	—	1	1
"	2,500	...	9	25	—	2	—	1
"	5,000	...	8	50	2	1	2	—
"	10,000	...	11	67	3	1	—	1
"	20,000	...	4	96	5	3	—	—
"	30,000	...	2	25	3	1	—	—
"	50,000	...	2	16	1	—	—	—
"	100,000	...	1	20	—	—	1	—
"	200,000	...	2	15	—	—	—	—
Over	200,000	...	3	23	—	—	—	—
			49	337	14	8	4	3

Coliform Bacilli present—

In one-tenth of a ml.,	9	—	—	2	2	—
In one-hundredth of a ml., ...	—	36	1	2	—	—
In one-thousandth of a ml., ...	—	—	—	—	—	—

Of the 415 samples of graded milk taken, 354, or 85 per cent., complied with the bacteriological requirements of the Milk (Special Designations) Order ; 61 samples did not comply in the following respects :—

13 exceeded the bacterial count.

30 showed the presence of coliform bacilli.

18 exceeded the bacterial count and coliform bacilli were also present.

The samples which did not conform to the bacteriological requirements were obtained from 31 producers and 7 dealers. There were,

therefore, 43 producers of graded milk in the County whose milk samples were found to be free from bacteriological contamination throughout the year.

The following table gives the results of chemical examination of graded milk taken during the year :—

Milk Fat per cent.	Certified.	Tuberculin Tested.	Grade A or Standard.	Pasteurised.	T.T. Pasteurised.	Non-fatty Solids per cent.	Certified.	Tuberculin Tested.	Grade A or Standard.	Pasteurised.	T.T. Pasteurised.
3.1	—	2	—	—	—	8.5	1	10	—	—	—
3.2	—	3	—	—	—	8.6	1	17	1	—	—
3.3	—	8	1	—	—	8.7	1	34	1	1	—
3.4	—	5	—	—	—	8.8	8	72	7	1	—
3.5	2	10	1	—	—	8.9	10	70	2	—	—
3.6	2	25	2	—	—	9.0	6	57	2	1	—
3.7	3	21	2	—	—	9.1	1	43	—	—	—
3.8	7	37	3	1	—	9.2	5	16	1	—	1
3.9	2	28	2	—	—	9.3	4	5	—	—	—
4.0	4	51	—	—	—	9.5 & over.	—	1	—	—	—
4.1	3	35	1	1	—						
4.2	3	28	—	1	—						
4.3	3	23	1	—	1						
4.4	3	16	1	—	—						
4.5 & over.	5	33	—	—	—						
—	37	325	14	3	1	—	37	325	14	3	1

From the foregoing table, it will be seen that 19 samples of graded milk did not comply with the milk fat standard of 3.5 per cent. These samples were taken from 14 producers and 2 dealers. The matter was taken up with the producers concerned, and subsequent sampling showed that the standard was being complied with.

Sixty producers complied with the standard for milk fat on all occasions throughout the year.

CLEANLINESS OF NON-GRADED MILK.

During the year, 413 samples of milk were taken by the Sanitary Inspectors and the Food and Drugs Inspectors for examination bacteriologically. The results of examination showed that 299, or 72·4 per cent. of these samples complied with the standard laid down for Tuberculin Tested Milk, and, of this number, 157 also complied with the standard laid down for Certified milk.

114 samples did not comply with the standard in the following respects :—

Samples containing over 200,000 bacteria per ml. and coliform bacilli present in ·01 or ·001 of a ml., ...	38
Samples containing over 200,000 bacteria per ml., ...	7
Samples with coliform bacilli present in ·01 or ·001 of a ml., ...	69
	<hr/> 114 <hr/>

When a sample is found to be contaminated, the producer is informed, and thereafter a visit is paid to the farm by the Sanitary Inspector at milking time, and suggestions are given with regard to improvements which he considers may give cleaner milk. In most instances this has the desired effect and subsequent samples taken generally show an improvement.

Of the 413 samples taken, 411 were examined for tubercle bacilli and other organisms. Nine were found to contain tubercle bacilli, and were referred to the County Veterinary Inspector in order that they could be dealt with under the Tuberculosis Order.

The following table shows the results of bacteriological examination of ordinary milk samples taken during the year :—

	No. of Bacteria per ml.	Jan. to March.	April to June.	July to Sept.	Oct. to Dec.	Total.
Under	10,000 ...	17	18	30	12	77
"	30,000 ...	64	33	22	24	143
"	50,000 ...	27	12	15	15	69
"	100,000 ...	8	15	8	15	46
"	200,000 ...	5	11	10	7	33
"	300,000 ...	—	3	2	1	6
"	500,000 ...	—	1	7	2	10
"	1,000,000 ...	1	6	3	—	10
Over	1,000,000 ...	2	4	7	6	19
		124	103	104	82	413

Coliform Bacilli present—

In one-tenth of a ml.,	26	20	19	22	87
In one-hundredth of a ml., ...	6	16	27	9	58
In one-thousandth of a ml., ...	5	15	18	11	49

MILK SUPPLIED TO SCHOOL CHILDREN.

Under this scheme, one-third of a pint of milk is supplied during school days, at a cost of $\frac{1}{2}$ d., to all school children whose parents desire them to participate in the scheme. A large majority of the pupils desired to take advantage of the scheme at the outset, although, unfortunately, since then there has been a distinct falling off in numbers. Samples of milk were taken regularly for bacteriological and chemical examination, the results of which are given in the tables following. Some of the results of bacteriological examination are very disappointing, but I am of opinion that this is, to a large extent, due to the time elapsing between milking and delivery of milk to the pupils. In a few instances the milk is bottled at the farm where it is produced and delivered direct to the school. This is undoubtedly the best method. It is desirable that all the milk supplied should be produced in Lanarkshire, as the whole supervision would be under the control of one authority. Neighbouring local authorities have given every attention to complaints made regarding contamination, but, owing to the lapse of time between milking and delivery, it is often difficult to determine the actual source of contamination.

**BACTERIOLOGICAL EXAMINATION OF MILK SAMPLES TAKEN FROM
Bulk Supplies TO VARIOUS SCHOOLS.**

	No. of Bacteria per ml.	Jan. to Mar.	Apr. to June.	July to Sept.	Octr. to Decr.	Total.
Under	10,000 ...	—	—	—	6	6
„	30,000 ...	—	—	—	4	4
„	50,000 ...	—	—	—	—	—
„	100,000 ...	—	—	—	—	—
„	200,000 ...	—	—	1	—	1
„	300,000 ...	—	—	—	—	—
„	500,000 ...	—	—	—	—	—
„	1,000,000 ...	—	—	—	—	—
Over	1,000,000 ...	—	—	—	—	—
		—	—	1	10	11

	Jan. to Mar.	Apr. to June.	July to Sept.	Octr. to Decr.	Total.
Coliform Bacilli present—					
In one-tenth of a ml.,—		—	—	—	—
In one-hundredth of a ml.,	—	—	1	4	5
In one-thousandth of a ml.,	—	—	—	—	—

Out of 11 samples taken from bulk supplies, 6 complied with the bacteriological requirements of graded milk. 5 samples did not comply in respect of the presence of coliform bacilli.

One of the foregoing samples was procured on delivery from a producer in Lanarkshire, and four on delivery from producers in neighbouring counties.

The following table gives the result of chemical examination of 10 samples taken on delivery from bulk supplies :—

Milk Fat per cent.	No.	Solids not Fat per cent.	No.
3·7	1	8·7	1
3·8	1	8·8	1
3·9	2	8·9	1
4·0 and over	6	9·0 and over	7
	10		10

BACTERIOLOGICAL EXAMINATION OF SAMPLES OF **Bottled Milk** AS DELIVERED TO VARIOUS SCHOOLS.

	No. of Bacteria per ml.		Jan. to Mar.	Apr. to June.	July to Sept.	Octr. to Decr.	Total.
Under	10,000	...	25	19	—	8	52
„	30,000	...	35	24	1	14	74
„	50,000	...	12	7	1	3	23
„	100,000	...	3	5	1	10	19
„	200,000	...	—	4	1	1	6
„	300,000	...	1	3	1	—	5
„	500,000	...	—	1	—	—	1
„	1,000,000	...	—	—	—	1	1
Over	1,000,000	...	1	2	3	2	8
			77	65	8	39	189

Coliform bacilli present—					
In one-hundredth of a ml., ...	15	26	7	17	65

Out of 189 samples taken at schools, 120, or 63 per cent., complied with the bacteriological requirements of graded milk. This percentage is very disappointing, but, in my opinion, is almost entirely due to the time elapsing between milking and delivery to the pupils. 69 samples did not comply with the bacteriological requirements in the following respects :—

4 exceeded the bacterial count.

54 showed the presence of coliform bacilli.

11 exceeded the bacterial count and coliform bacilli were also present.

18 of the samples not complying with the bacteriological requirements were from Lanarkshire farms, whereas 51 were from farms outwith the County.

The following table gives the result of chemical examination of 191 samples of bottled milk as delivered to various schools :—

Milk Fat per cent.	No.	Solids not Fat per cent.	No.
1·8	1	7·4	1
3·0	1	8·6	10
3·2	2	8·7	24
3·3	3	8·8	34
3·4	7	8·9	43
3·5	17	9·0 and over	79
3·6	19		191
3·7	20		
3·8	26		
3·9	17		
4·0 and over	78		
	191		

It will be noted that 14 samples did not comply with the milk fat standard for graded milk. The matter was taken up with the producers concerned and subsequent sampling showed that the standard was being complied with.

Report of the Sanitary Inspector.

HOUSING.

The administrative procedure during the year 1936, which was summarised in the information supplied to the Department of Health for Scotland, in terms of the Regulations under the Housing Acts, is given in the following tabular statement and subsequent paragraphs :—

Number of dwelling-houses inspected,	1,177
Number of dwelling-houses found to be unfit for human habitation,	541
Number of dwelling-houses in respect of which Notices were served under Section 14 (1) of 1930 Act,	9
Number of dwelling-houses rendered fit following on Notices under Section 14 (1),	—
Number of dwelling-houses in respect of which a Demolition Order or Closing Order under Section 16 (3) has been substituted for a Notice under Section 14 (1),	62
Number of dwelling-houses in respect of which Notices were served in terms of Section 16 (1),	1,007
Number of dwelling-houses in respect of which undertaking has been given that the house will not be used for human habitation until it has been rendered so fit,	38
Number of dwelling-houses in respect of which Demolition Orders have been made under Section 16 (3),	634
Number of dwelling-houses in respect of which Closing Orders have been made under Section 16 (3) and (4),	14
Number of dwelling-houses rendered fit following on undertakings under Section 16 (2), with assistance under Housing (Rural Workers) Acts, 1926 and 1931,	5
Number of dwelling-houses rendered fit for human habitation at instance of County Council without formal notice under Housing (Scotland) Act, 1930, with assistance under Housing (Rural Workers) Acts, 1926 and 1931,	38

The general character of the defects usually found to exist in the dwelling-houses dealt with was principally dampness, due to various defects in construction; broken plasterwork, floors, etc.; and the want of proper domestic and sanitary conveniences.

Although no action was taken by the Local Authority under Section 20 (1) of the Housing (Scotland) Act, 1925, and Section 40 (1) of the Housing, Town Planning, &c. (Scotland) Act, 1919, it should be explained that the Local Authority have taken action for the introduction of—

sinks, water supply, and water-closets at 37 dwellings ;
sinks and water supply at 8 dwellings ; and
water-closets at 591 dwellings ;

all in terms of Section 246 of the Burgh Police (Scotland) Act, 1892, as applied to the County of Lanark by Section 68 (1) of the Lanarkshire County Council (Water, &c.) Order Confirmation Act, 1917.

No schemes under Part I of the Housing (Scotland) Act, 1930, relating to Clearance or Improvement of Unhealthy Areas, or Part I of the Act of 1935, relating to Re-development Areas, were in contemplation.

Slum Clearance.

Demolition Orders.—Further progress was made during the year towards the removal of insanitary houses. Representations under Section 16 (1) of the Housing (Scotland) Act, 1930, that 750 dwellings were unfit for human habitation, and not capable, at a reasonable expense, of being rendered so fit, were submitted to the Local Authority, and Demolition and Closing Orders were made in respect of 648 houses. The remaining cases are being dealt with.

Representations were also submitted, in terms of Section 14 (1) of the Act, to the effect that 62 dwellings were unfit for human habitation, but were capable at a reasonable expense, of being rendered so fit, and statutory notices were served on the person or persons having the control of the houses requiring them to execute the works specified in the representation. The owners of the dwellings subsequently made application to the Local Authority, in terms of

Section 17 of the Housing (Scotland) Act, 1930, to substitute, for the notice which had been served, a Demolition Order under Sub-Section (3) of Section 16 of the Act. The Local Authority, after consideration of each case, were satisfied that it was reasonable to comply with the request, having regard to the estimated cost of the works requiring to be carried out on the houses, the condition of the houses, and other circumstances of the case, and a Demolition Order was accordingly made.

The following table shows the situation and size of the 710 dwelling-houses dealt with by Demolition and Closing Orders, under Section 16 (3) of the Housing (Scotland) Act, 1930, during the year :—

Avondale Parish—

	Apartments.				Total. Houses.
	1	2	3	4	
21 Commongreen, Strathaven (C.O.),	—	1	—	—	1

Blantyre Parish—

4-10 Bardykes Road, High Blantyre,	1	2	1	—	4
110-132 Calder Street and 26-56 Dixon Street, Blantyre,	16	8	—	—	24
2-12 Logan Street and 165 Glasgow Road, Blantyre,	—	19	7	—	26
	17	29	8	—	54

Bothwell Parish—

73-107 New Stevenston Road, Carfin,	12	4	—	—	16
1D Spindlehowe Road, &c., Uddingston,	—	3	—	—	3
Wellbank Place, do.,	2	4	—	—	6
40A Old Glasgow Road, &c., do.,	—	3	1	—	4
45 do., do.,	—	2	—	—	2
3 Bellshill Road, do.,	—	—	—	1	1
2 Meadowbank, do.,	—	1	1	—	2
2-6 Porterswell, do.,	8	—	—	—	8

		Apartments.				Total
		1	2	3	4	Houses.
<i>Bothwell Parish</i> —Continued.						
Violetbank,	Uddingston,	7	2	—	—	9
5-7 Greenrigg Street,	do.,	—	1	1	—	2
74 Old Mill Road,	do.,	—	3	—	—	3
90 do.,	do.,	—	1	—	—	1
West Lodge, Orbiston,	do.,	—	1	—	—	1
2-6 Bellshill Road,	Bothwell, ...	—	3	—	—	3
7-9 Green Street,	do., ...	—	4	—	—	4
Camphill Cottage,	do., ...	—	1	—	—	1
Silverwells Place,	do., ...	3	3	9	—	15
119-131 Carfin St.,	New Stevenston,	7	10	—	—	17
Mid Greenside Row,	Newhouse, ...	4	—	—	—	4
418 High Street,	Newarthill, ...	1	—	—	—	1
501-507 do.,	do., ...	4	—	—	—	4
392 Old Edinburgh Road,	Bellshill,	6	2	1	—	9
		54	48	13	1	116

Cadder Parish—

281 Auchinairn Road,	Auchinairn, ...	—	1	—	—	1
160 Cumbernauld Road,	Muirhead					
(C.O.),	... ..	1	—	—	—	1
		1	1	—	—	2

Cambuslang Parish—

169 Westburn Road,	Cambuslang, ...	—	1	—	—	1
2-6 Buchanan Square,	do., ...	—	3	—	—	3
37 Cadoc Street,	do., ...	2	—	—	—	2
159 Westburn Road,	Cambuslang					
(C.O.),	... ..	—	1	—	—	1
1 Spittal,	Cambuslang,	—	1	—	—	1
		2	6	—	—	8

					Apartments.				Total
					1	2	3	4	Houses.
<i>Cambusnethan Parish—</i>									
14 Charlotte Street, Stane, ...	...	...	...	...	—	1	—	—	1
1-6 Hamilton's Land, Overtown, ...	...	...	...	...	5	1	—	—	6
					5	2	—	—	7

Carluke Parish—

9-11A School Lane, Carluke, ...	...	...	...	...	2	1	—	—	3
15 Craighill Road, do., ...	...	...	...	...	—	1	—	—	1
8-14 Cairneymount Road, Carluke, ...	...	...	...	...	—	4	—	—	4
Hallcraig, Carluke, ...	...	...	...	...	3	6	3	—	12
51 Carnwath Road, Carluke, ...	...	...	...	...	—	1	—	—	1
61-63 Clyde Street, do., ...	...	...	...	...	—	2	—	—	2
68-74 Rankin Street, &c., Carluke, ...	...	...	...	...	3	2	—	—	5
26-34 Cassels Street, do., ...	...	...	...	...	4	2	—	—	6
2-10 James Street, do., ...	...	...	...	...	4	2	—	—	6
1-6 Furnace Row, do., ...	...	...	...	...	1	5	—	—	6
					17	26	3	—	46

Carmunnock Parish—

135 Waterside Road, Carmunnock, ...	...	...	...	...	1	—	—	—	1
112, &c., do., do., ...	...	...	...	...	—	2	—	—	2
4-6 Kirk Road, do., ...	...	...	...	...	1	3	—	—	4
					2	5	—	—	7

Carnwath Parish—

28 Main Street, Forth, ...	...	...	...	...	—	1	—	—	1
32 do., do., ...	...	...	...	...	—	1	—	—	1
44 do., do., ...	...	...	...	...	—	—	—	1	1

					Apartments.				Total
					1	2	3	4	Houses.
<i>Carnwath Parish</i> —Continued.									
53	Main Street, Forth,	...	...	...	—	1	—	—	1
138	do., do.,	...	...	...	—	1	—	—	1
1-9	Quality Row, Forth,	...	...	...	1	7	—	1	9
119-126	Tarbrax,	...	...	...	—	8	—	—	8
133-144	do.,	...	...	...	4	6	—	—	10
	Old Police Station, Haywood,	...	...	...	—	—	1	—	1
					5	25	1	2	33

Douglas Parish—

1	Bell's Wynd, Douglas,	...	...	...	—	2	—	—	2
2	do., do.,	...	...	...	—	2	—	—	2
	Castlehill, do., (C.O.),	...	...	...	2	—	—	—	2
3	Doctor's Close, do., (C.O.),	...	...	...	—	1	—	—	1
2	do., do.,	...	...	...	—	1	—	—	1
1	Braehead, do.,	...	...	...	—	4	—	—	4
3	do., do.,	...	...	...	3	3	—	—	6
	Sliddery, do.,	...	...	...	—	3	—	—	3
	Haggart's Building, Douglas,	...	...	...	2	1	—	—	3
	Slate House, Glespin, ...	...	...	...	—	1	—	—	1
	Long and Water Rows, Glespin,	...	...	...	—	25	1	—	26
	Carmacoup, Glespin, ...	...	...	...	1	1	1	—	3
					8	44	2	—	54

East Kilbride Parish—

2	Langlands Road, Auldhouse,	...	...	...	—	1	—	—	1
26-28	Parkhall Road, East Kilbride,	...	...	...	—	3	1	—	4
18	Main Street, do.,	...	...	...	1	1	1	—	3
36-38	do., do.,	...	...	...	3	1	—	—	4
20-22	Hunter Street, do.,	...	...	...	6	1	—	—	7
54	Main Street, do.,	...	...	...	—	—	1	—	1
					10	7	3	—	20

					Apartments.				Total
					1	2	3	4	Houses.
<i>Hamilton Parish—</i>									
Store Row, Quarter, ...	...	...	...	...	—	16	—	1	17
1-21 Low Quarter, Quarter, ...	...	...	...	...	5	10	5	1	21
Dunn's Land, Udston, ...	...	...	...	...	—	6	—	1	7
Wellbrae, do., ...	...	...	...	...	—	3	—	—	3
					5	35	5	3	48
<i>Lanark Parish—</i>									
Kingsonsknowe, Lanark, ...	...	...	...	...	3	2	1	—	6
<i>Lesmahagow Parish—</i>									
Knownack, Kirkmuirhill, ...	...	...	...	...	1	—	—	—	1
Woodend, Kirkfieldbank, ...	...	...	...	...	—	2	1	—	3
Craigellachie, Kirkfieldbank, ...	...	...	...	...	—	3	—	—	3
Main Street, do., ...	...	...	...	...	2	—	—	—	2
M'Kinlay's Buildings, Kirkfieldbank, ...	...	...	...	...	—	1	—	—	1
Ramoth, do., ...	...	...	...	...	1	1	—	—	2
Wood's Cottage, do., ...	...	...	...	...	1	—	—	—	1
					5	7	1	—	13
<i>New Monkland Parish—</i>									
1-19 Greengairs Rd., High Riggend, ...	...	...	...	...	1	7	—	—	8
21-25 do., do., ...	...	...	...	...	—	3	—	—	3
27-31 do., do., ...	...	...	...	...	2	1	—	—	3
386 Greengairs Road, Greengairs, ...	...	...	...	...	1	1	—	—	2
326-330 do., do., ...	...	...	...	...	1	1	1	—	3
360-364 do., do., ...	...	...	...	...	2	1	—	—	3
1-15 Shanks' Square, do., ...	...	...	...	...	8	—	—	—	8

					Apartments.				Total
					1	2	3	4	Houses.
<i>New Monkland Parish—Continued.</i>									
4-9 Low Craigmaukin, Greengairs, ...					2	—	—	—	2
Motherwell's Cottage, do., ...					—	—	1	—	1
Arden House, Plains, ...	...	...			—	1	—	—	1
Stanrigg Cottage, Plains, ...	...	...			—	1	—	—	1
Station Row, Whiterigg, ...	...	...			—	7	—	—	7
Old School, East Longrigg, ...	...	...			5	1	—	—	6
Causewayend, Caldercruix, ...	...	...			—	—	1	—	1
7-12 Brick Row, Darngavil, ...	...	...			2	2	—	—	4
Low Row, do., ...	...	...			6	—	—	—	6
Shanks' Cottage, do., ...	...	...			—	1	—	—	1
1-6 Store Row, do., ...	...	...			2	2	—	—	4
424-438 Greengairs Rd., Greengairs,					4	4	—	—	8
306-312 do., do.,					2	1	—	—	3
322-324 do., do.,					2	—	—	—	2
					40	34	3	—	77

Old Monkland Parish—

Kirkstyle, Old Monkland, ...	...				1	2	1	—	4
Mainhill Cottage, Bargeddie, ...	...				—	1	—	—	1
Braehead Quarry, do., ...	...				1	1	—	—	2
2-4 Braehead Rows, do., ...	...				—	3	—	—	3
Old Pit Houses, do., ...	...				2	2	2	—	6
No. 5 Pit Houses, do., ...	...				1	4	2	1	8
No. 14 do., do., ...	...				—	1	—	—	1
531-537 Coatbridge Rd., Bargeddie,					—	2	2	—	4
190-234 Longmuir Rd., do.,					24	8	—	—	32
399-407 do., do.,					—	5	—	—	5
548-552 Hamilton Rd., Broomhouse,					—	3	1	—	4
8-38 Camp Road, Baillieston, ...	...				—	16	—	—	16
2-8 Glasgow Road, do., ...	...				2	3	—	—	5
1 Gardiner's Lane, do., ...	...				1	—	—	—	1

					Apartments.				Total
					1	2	3	4	Houses.
<i>Old Monkland Parish—Continued.</i>									
52-54 Church Street, Baillieston,	...				1	1	—	—	2
Reid's Row,	do.,	...			27	—	—	—	27
1-14 Bogside Place, etc., Baillieston,					—	15	—	—	15
Gaswork Row, Calderbank,	...	...			1	—	—	—	1
25F Main Street,	do.,	...	...		2	—	—	—	2
43A-H New Street,	do.,	...	...		5	1	—	—	6
58-69 Stone Row, Faskine,	...	...			12	—	—	—	12
Hillhead Rows, Airdrie,	...	...			2	2	—	—	4
Canal Row, Low Palacecraig,	...				8	—	—	—	8
2-8 High Palacecraig,	...	...			3	5	—	1-4 apt.	10
								1-5 „	
					93	75	8	2-4 apt.	179
								1-5 „	

Rutherglen Parish—

144 Cambuslang Road, Clydeviue									
(C.O.),	...	...	...	...	—	1	1	—	2
150 Cambuslang Road, Clydeviue					—	—	2	—	2
(C.O.),	...	...	...	...	—	—	2	—	2
3 George Gray Street, Clydeviue					—	1	2	—	3
(C.O.),	...	...	...	...	—	1	2	—	3
					—	2	5	—	7

Shotts Parish—

Blackhill, Cleland (C.O.),	...	...			1	—	—	—	1
7 Scott's Close, Cleland,	...	...			—	—	1	—	1
68 Main Street,	do.,	...	...		—	1	—	—	1
50-52A Wishaw Low Road, Cleland,					3	—	1	—	4
29-31 Omoa Road,			do.,		4	1	—	—	5
					8	2	2	—	12

					Apartments.				Total
					1	2	3	4	Houses.
<i>Stonehouse Parish—</i>									
8 Argyle Street, Stonehouse,	...				2	1	—	—	3
35A-B Kirk Street, do.,	...				2	—	—	—	2
1 Lawrie Street, do.,	...				3	1	—	—	4
2-6 Townhead Street, do.,	...				1	1	1	—	3
24 Kirk Street, do.,	...				—	1	—	—	1
34 New Street, do.,	...				1	—	—	—	1
15 Boghall Street, do.,	...				1	—	—	—	1
Hill House, do.,	...				—	3	1	1	5
					10	7	2	1	20
TOTALS,					285	358	57	9-4 apt.	710
					1-5 „				

Undertakings.—During the year undertakings, under Section 16 (2) of the Act, were accepted from the owners that the following 38 dwelling-houses would not be used for human habitation until the Local Authority, on being satisfied that they had been rendered fit, cancelled the undertaking :—

					Apartments.				Total
					1	2	3	4	Houses.
Stevenston Mains, by Holytown,	...				—	—	—	1-6 apt.	1
397-401 Main Street, Bellshill,	...				—	3	—	—	3
91 Cumbernauld Road, Stepps,	...				—	1	—	—	1
10 Mansion Street, Cambuslang,	...				—	1	—	—	1
5 Sauchiebog, do.,	...				—	1	—	—	1
13-15 Dalton, do.,	...				—	2	—	—	2
7 Kirk Road Carmunnock,	...				—	2	—	—	2
Sliddery, Douglas,	...	...	...	...	2	7	1	—	10
Townfoot, do.,	...	...	...	...	—	1	—	—	1
Weavers' Yards, Douglas,	...	...	...	...	—	1	—	—	1
Blue Tower, do.,	...	...	...	...	—	2	—	—	2

					Apartments.				Total
					1	2	3	4	Houses.
<i>Undertakings—Continued.</i>									
Kirkgate, Douglas,	...	...	—	1	—	—	—	—	1
High Huntlawrigg, Auldhouse,	...	...	—	1	—	—	—	—	1
Store Buildings, Calderbank,	...	...	—	—	2	—	—	—	2
37 Carlisle Road, Cleland,	...	...	—	1	—	—	—	—	1
3 Cross, Stonehouse,	...	...	—	2	—	—	—	—	2
21 Angle Street, Stonehouse,	...	...	4	1	—	—	—	—	5
41 Lockhart Street, do.,	...	...	—	1	—	—	—	—	1
TOTALS,					6	28	3	1-6 apt.	38

Displacement of Persons.—During the year 699 additional Improvement Scheme houses were completed and occupied by tenants from slum dwellings, the number of persons displaced being 3,460. There were also 168 persons removed to vacancies in 43 Improvement Scheme houses of earlier construction, making a total of 3,628 persons rehoused in 742 new dwellings.

The number of additional houses completed shows a reduction of over 300 on the previous year, due chiefly, it is said, to the scarcity of skilled labour, and, if this fall continues, it will mean a serious set-back to our Slum Clearance programme. It is to be hoped, however, that a speedy solution of the labour difficulties will be arrived at by those concerned.

The following table gives the location and number of new houses allocated, and the number of persons displaced :—

Parish.			Locality.		Houses Allocated.	Persons Displaced.
Avondale,	...	...	Strathaven,	...	1	6
Blantyre,	...	...	Blantyre,	...	61	284
Bothwell,	...	...	Bothwell,	...	1	5
			Bothwellpark,	...	16	102
			Bellshill,	...	2	9
			Carfin,	...	3	6

Parish.	Locality.	Houses Allocated.	Persons Displaced.
Bothwell— <i>Continued.</i>	Holytown, ...	3	12
	Newarthill, ...	45	209
	Uddingston, ...	1	5
Cadder,	Bishopbriggs, ...	1	6
	Chryston, ...	1	3
Cambuslang,	Cambuslang, ...	2	5
	Halfway, ...	8	50
Cambusnethan,	Netherton, ...	8	37
	Newmains, ...	1	6
	Overtown, ...	1	2
Carluke,	Carluke, ...	74	305
	Law, ...	28	136
Carmunnock,	Carmunnock, ...	8	32
Carnwath,	Forth, ...	69	338
Covington,	Thankerton, ...	2	6
Dalserf,	Larkhall, ...	3	11
Douglas,	Douglas, ...	24	112
	Glespin, ...	24	131
East Kilbride,	East Kilbride, ...	1	4
Hamilton,	Eddlewood, ...	58	298
Lesmahagow,	Blackwood, ...	1	4
	Lesmahagow, ...	1	5
New Monkland,	Greengairs, ...	32	155
	Plains, ...	33	188
Old Monkland,	Baillieston, ...	13	59
	Bargeddie, ...	73	360
	Broomhouse, ...	16	93
	Calderbank, ...	41	260
	Carmyle, ...	6	19
	Eastfield, ...	8	27
Rutherglen,	Cleland, ...	32	148
	Dykehead, ...	13	57
	Harthill, ...	1	4
	Salsburgh, ...	5	19
Stonehouse,	Stonehouse, ...	20	107
Symington,	Symington, ...	1	3
TOTALS, ...		742	3,628

The total number of new houses completed under the Housing Act of 1930 and occupied was 3,053. There were also, at the close of the year under review, 1,120 new houses in various stages of construction, situated as follows :—

Baillieston, ...	124 houses.	East Kilbride, ...	16 houses.
Bargeddie, ...	48 „	Forth, ...	20 „
Bellshill, ...	176 „	Glenmavis, ...	6 „
Bishopbriggs, ...	68 „	Gartcosh, ...	50 „
Blantyre, ...	108 „	Holytown, ...	8 „
Bothwellpark, ...	74 „	Kingshill, ...	16 „
Calderbank, ...	44 „	Kirkfieldbank, ...	8 „
Cambuslang, ...	12 „	Larkhall, ...	40 „
Carluke, ...	4 „	Moodiesburn, ...	12 „
Carnwath, ...	4 „	Newarthill, ...	4 „
Chapelhall, ...	102 „	Plains, ...	48 „
Chryston, ...	8 „	Shotts, ...	68 „
Douglas, ...	22 „	Strathaven, ...	22 „
Eastfield, ...	8 „		
		TOTAL,	1,120 „

Prosecution of "Squatters."—Seven parties were each fined £2 or 10 days' imprisonment by the Sheriff for having taken possession of old dwellings at 1 Glasford Road, Strathaven, 165 Glasgow Road, Blantyre, and 4-14 Logan Street, Blantyre, which had been vacated under Demolition Orders.

Overcrowding.

A revised report on the Overcrowding Survey under the Housing (Scotland) Act, 1935, following upon the measurement of houses completed in October was submitted to the Committee, the overcrowding figure showing a slight increase over that of the initial survey, dealt with at length in my previous Annual Report. A supplementary survey, however, of more than a thousand new houses

occupied during the period under review has now been made, and, after adding these uncrowded houses to the previous total number surveyed, this has reduced the rate of overcrowding in the County from 36·82 per cent. to 35·75 per cent.

The following Table gives a general summary of the results of the completed survey :—

STATEMENT OF ACCOMMODATION.

Houses.	No. of Apartments.						Totals.
	1	2	3	4	5	6	
Surveyed, ...	4,997	23,259	17,647	8,919	3,037	3,071	60,930
Overcrowded, ...	3,283	12,685	4,582	936	191	104	21,781
Percentage overcrowded,	65·69%	54·54%	25·96%	10·49%	6·29%	3·39%	35·75%
Required to abate over-crowding, ...	1,548	3,167	9,018	6,021	1,310	90	21,154
Fit existing houses :—							
(i) Empty, ...	131	226	122	118	42	51	690
(ii) To be rendered vacant, ...	3,201	10,299	2,757	355	41	—	16,653
(iii) Total, ...	3,332	10,525	2,879	473	83	51	17,343
Estimated surplus, or	1,784	7,358	—	—	—	—	9,142
New houses required, ...	—	—	6,139	5,548	1,227	39	12,953
Overcrowded houses belonging to local authority included under Entry 2, ...	—	1,276	2,585	386	70	—	4,317

After consideration of the position, the County Council have agreed to the provision of 5,000 houses within the three years ending in December, 1938. Allocations have already been made to a total of 3,759 houses for the most urgent cases, and this figure will be supplemented as progress is made with the approved schemes. At the close of the year 42 new houses were occupied under the Decrowding Scheme, and other 606 houses were in various stages of construction in certain populous areas.

Recurring Overcrowding.—During the process of decrowding houses it is regrettable to find people who appear to have no sense of appreciation of the efforts made for the betterment of their housing conditions. In a case at Salsburgh a sub-tenant was removed from an overcrowded house to another belonging to the Local Authority and the tenant of the house in question promptly took in another sub-tenant with a larger family than the one which had been removed, so that the house again became seriously overcrowded. The Local Authority decided, if necessary, to have the tenant and sub-tenant ejected, and to deal similarly with any other cases of a like nature.

Provision of Beds and Bedding.—A scheme was adopted in December for the provision of beds and bedding to tenants removing to Council houses from insanitary and overcrowded dwellings, and cases where there are tuberculous patients. The beds will be provided by the County Council and tenants are to pay for same, either on delivery or under a hire-purchase agreement. The scheme, which applies only to tenants and families removed as aforesaid on or after 1st November last, is, at the time of writing, a success and working satisfactorily.

Insanitary Dwellings.

The Department has continued to press for the introduction of modern and domestic sanitary conveniences, and, during the year, numerous inspections were made and meetings held with the owners of properties. Difficulties are still being experienced, in view of the continued high cost of carrying out improvements, but, in spite of this, some further progress has been made. The properties are briefly referred to as under :—

81 *Glasgow Road, Strathaven.*—This four-apartment dwelling was provided with a water-closet and bathroom.

46 *Kirk Street, Strathaven.*—A bathroom and water-closet were provided at this four-apartment dwelling in place of the existing outside water-closet.

Kew Terrace, Dean Street, Bellshill.—2 one-apartment and 24 two-apartment dwellings. Three additional water-closets were provided for this property, which, with the existing ten conveniences, gives one water-closet between each two dwellings.

Sykehead Terrace, 398 Main Street, Bellshill.—15 two-apartment dwellings. Seven additional water-closets were provided for this property, and, with the existing convenience, this now gives eight water-closets between 15 dwellings.

Calder Place, Bothwellhaugh.—1 one-apartment, 46 two-apartment, and 1 three-apartment dwellings. A complaint was received as to the inadequate water-closet accommodation at this property, and, after negotiations, the owners agreed to provide one water-closet between each two dwellings. This work was satisfactorily carried out, and the existing conveniences were abandoned.

110-112 Clydesdale Street, Mossend.—1 one-apartment and 1 three-apartment dwellings. A water-closet was provided for the one-apartment dwelling, and a bathroom with water-closet for the three-apartment dwelling.

515 High Street, Newarthill.—This two-apartment dwelling was provided with a bathroom containing water-closet and wash-hand basin.

292-304 High Street, Newarthill.—5 two-apartment dwellings. A water-closet was provided for each of these dwellings.

Old Tollhouse, Clydeneuk, Uddingston.—A bathroom with water-closet and wash-hand basin was provided for this three-apartment dwelling.

Woodhill Cottage, Bishopbriggs.—A water-closet was provided for this four-apartment dwelling.

31-39 Crowhill Road, Bishopbriggs.—8 two-apartment dwellings. Four additional water-closets were provided for this property, and there is now one water-closet for each of the four ground floor dwellings, and one between each two dwellings on the upper floor.

Cawdercuil Farm Worker's House, Bishopbriggs.—This two-apartment dwelling was provided with a water-closet and inside sink and water supply.

Caledonian Buildings, Newton.—8 two-apartment dwellings. Four water-closets were provided for this property.

Cathburn Cottage, Morningside.—This two-apartment dwelling was provided with a water-closet.

Torbush Square, Morningside.—30 two-apartment dwellings. Water-closet accommodation was provided at this property in the ratio of one convenience between each two dwellings.

398-408 Castlehill Road, Overtown.—9 two-apartment and 3 three-apartment dwellings referred to in last Annual Report. Six water-closets were provided for this property.

55 Belstane Road, Carluke.—A water-closet was provided for this two-apartment dwelling.

24 Market Place, Carluke.—This two-apartment dwelling was provided with an inside sink and water supply.

13-15 Braidwood Road, Braidwood.—2 two-apartment dwellings. Each of these dwellings was provided with an inside sink and water supply.

Kaimend, Carnwath.—A sink and water supply was installed in this two-apartment dwelling.

Harelaw Farm Cottage, Forth.—A water-closet and inside sink and water supply were provided for this two-apartment dwelling.

83-85 Main Street, Forth.—This three-apartment dwelling was provided with a water-closet and inside sink and water supply.

Mine Cottage, Haywood.—This three-apartment dwelling was provided with a scullery, bathroom, water-closet, and inside sink and water supply.

Pentland View, Haywood.—2 two-apartment dwellings. Each of these dwellings was provided with a water-closet and inside sink and water supply.

Newbigging.—(*Tervit*).—A water-closet and inside sink and water supply were provided for this two-apartment dwelling; (*Adams*).—This two-apartment dwelling was provided with a bathroom, water-closet, and inside sink and water supply; (*Thomas*).—A scullery,

bathroom, water-closet, and inside sink and water supply were provided for this two-apartment dwelling.

Station Houses, Sandilands.—2 two-apartment and 1 three-apartment dwellings. Each of the two-apartment dwellings was provided with a water-closet and inside sink and water supply, and the three-apartment dwelling was provided with a scullery containing bathroom, water-closet, and sink and water supply.

12-14 Carstairs Road, Carstairs.—4 two-apartment dwellings. An additional water-closet was erected at this property, and an inside sink and water supply provided for each dwelling.

Stationmaster's House, Abington.—This three-apartment dwelling was provided with a bathroom containing water-closet and wash-hand basin.

Rosslyn Cottage, Abington.—A bathroom with water-closet and wash-hand basin was provided for this three-apartment dwelling.

Ivy Cottage, Abington.—A water-closet was provided for this three-apartment dwelling.

Sliderry, Douglas.—5 one-apartment, 9 two-apartment, and 1 three-apartment dwellings referred to in last Annual Report. Six of the tenants from this property were re-housed by the Local Authority, and negotiations are proceeding with the owners regarding the proposed scheme of reconditioning.

15 Parkhall Street, East Kilbride.—8 two-apartment dwellings. Two additional water-closets were provided for this property.

21 Alston Street, Glassford.—This two-apartment dwelling was provided with a water-closet.

Whitehill Cottage, Glassford.—This three-apartment dwelling was provided with a bathroom and water-closet.

209-211A Strathaven Road, Eddlewood.—4 two-apartment dwellings. Two water-closets were provided for this property.

157-163 *Carlisle Road, Ferniegair*.—4 three-apartment dwellings. Each of these dwellings was provided with a scullery containing water-closet and sink and water supply.

Cleghorn House Cottages, Lanark.—2 two-apartment dwellings. Each of these dwellings was provided with an inside sink and water supply.

Rybar Cottages, Lanark.—2 two-apartment dwellings. A scullery, with water-closet and inside sink and water supply, was provided for each of these dwellings.

Worker's Cottage, Cleghorn Mains Farm, Lanark.—This two-apartment dwelling was provided with an inside sink and water supply.

The Stell, Kirkfieldbank.—This two-apartment dwelling was provided with a water-closet, and inside sink and water supply.

Dublin, Kirkfieldbank.—2 two-apartment dwellings. A water-closet was provided for each of these dwellings.

Garngour Cottage, Lesmahagow.—2 two-apartment dwellings. A water-closet was provided for each of these dwellings.

Dick's Property, Main Street, Lesmahagow.—This three-apartment dwelling was provided with a water-closet.

The Crescent, Forrestfield.—A water-closet and inside sink and water supply were provided for this three-apartment dwelling.

144-146 *Main Street, Glenboig*.—2 three-apartment dwellings. Each of these dwellings was provided with a water-closet.

106 *Main Street, Glenboig*.—This three-apartment dwelling was provided with a water-closet.

Ryding Cottages, Glenmavis.—4 two-apartment and 2 four-apartment dwellings. Five water-closets were provided for this property.

1-3 *Main Street, Plains*.—2 two-apartment dwellings. A water-closet was provided for each of these dwellings.

41-47, 140-150, 158-166, and 168-170 *Main Street, Plains*.—1 one-apartment, 16 two-apartment, 1 three-apartment, and 1 four-apartment dwellings. A water-closet was provided for each of these dwellings.

115 *Main Street, Plains*.—A water-closet was provided for this three-apartment dwelling.

65 *Main Street, Plains*.—This two-apartment dwelling was provided with a water-closet and inside sink and water supply.

101-103 *Main Street, Plains*.—1 two-apartment and 1 three-apartment dwellings. A water-closet was provided for each of these dwellings.

107 *Main Street, Plains*.—A water-closet was provided for this four-apartment dwelling.

"*Ingledene*," *Hareshaw, Cleland*.—This three-apartment dwelling was provided with a bathroom and water-closet.

Loganville Cottage, Cleland.—A bathroom and water-closet were provided for this two-apartment dwelling.

53 *Main Street, Harthill*.—A bathroom and water-closet were provided for this four-apartment dwelling.

Allanton Mill Cottage, Hartwood.—A water-closet was provided for this three-apartment dwelling.

168-170 *Main Street, Salsburgh*.—2 two-apartment dwellings. Each of these dwellings was provided with a water-closet and bathroom.

57 *Main Street, Salsburgh*.—This four-apartment dwelling was provided with a bathroom and water-closet.

142 *Rosehall Road, Shotts*.—A bathroom and water-closet were provided for this three-apartment dwelling.

28 *Boghall Street, Stonehouse*.—A water-closet was provided for this two-apartment dwelling.

Rowan Cottage, Roberton.—This three-apartment dwelling was provided with a bathroom with water-closet and wash-hand basin.

WATER SUPPLY, CLOSET ACCOMMODATION, ETC.—The following inset table shows the number of closets on the conservancy system, as well as the number of privies, etc., remaining at the end of the year; also the number of houses without water supply, etc. It should be noted, however, that many of the dwellings shown in the table as still having inadequate sanitary conveniences are on the list for closure, under the Local Authority's scheme for the improvement of insanitary areas, and will be swept away in due course.

Accommodation for Seasonal Workers.

The total intimations received from employers as to the number of workers proposed to be employed was 74, and 17 applications by farmers for the approval of the Local Authority with regard to accommodation were also received during the year. Four of the applications from employers were refused, as the accommodation proposed for the workers was quite unsuitable.

Numerous visits of inspection were made where seasonal workers were accommodated, the workers being mainly engaged with potato crops. Generally, the accommodation provided and the other arrangements made for the workers were satisfactory. One or two squads of workers were cautioned regarding the keeping clean of their quarters, and on subsequent inspection an improvement was noted.

The revision of the existing by-laws, referred to in last Annual Report, is still under consideration by the Local Authority.

Housing (Rural Workers) Acts, 1926 and 1931.

During the year the survey of dwellings for the accommodation of agricultural workers, and other persons whose economic condition is substantially the same as such workers, was continued, and 28 applications were received for assistance in aid of the reconstruction and improvement of 39 dwellings. A grant was sanctioned by the Local Authority in each case.

Rent and Mortgage Interest (Restrictions) Acts, 1920-1933.

The number of applications by tenants for a certificate of the Local Authority as to the insanitary state of repair of their dwellings was 254, and 6 were subsequently withdrawn by tenants. In every instance a careful inspection of the premises was made, and a report submitted for the consideration of the Committee. Including applications still to be dealt with from the preceding year, certificates were granted in 155 cases, and 53 were refused.

Intimation was sent to the owner of each dwelling, giving details of the defects found, and, in many cases, repairs were immediately carried out.

Applications by Landlords.—Applications were received from owners of 48 houses in respect of which certificates had previously been granted to the tenants, requesting a report of the Local Authority to the effect that the houses were now in a reasonable state of repair. Including those continued from the previous year, reports were granted in 20 cases, and 6 were refused.

Ruinous and Dangerous Buildings.

The following ruinous and dangerous buildings were dealt with and notices served on the owners requiring them, in terms of Section 191 of the Burgh Police (Scotland) Act, 1892, as applied to the County by Section 10 (2) of the Local Government (Scotland) Act, 1908, to take down or secure such buildings :—

Sunnybank, Waterside Road, Carmunnock.—Stone-built coal cellars—taken down.

148-152 Jerviston Street, New Stevenston.—Stone chimneyhead and cans—repaired.

85-87 Overton Road, Cambuslang.—Upper landing on common stairs—repaired.

20 Church Street, Larkhall.—Cast-iron pillar supporting stair landing—repaired.

120 Cambuslang Road, Clydeview, Rutherglen.—Brick-built coal cellars at rear—made secure.

86-94 *Chryston Road, Chryston*.—Stone-built stable at rear—made secure.

89-91 *Overton Road, Cambuslang*.—Upper landing on common stairs—repaired.

119 *Carfin Street, New Stevenston*.—Outside brick-built staircase—demolished.

42-44 *Percy Street, Larkhall*.—Scullery floors of the partly demolished property—demolished.

31 *Queen Street, Stonehouse*.—Brick-built chimneyhead—demolished.

26 *Alpine Street, Blantyre*.—Outside staircase—repaired.

51-55 *Machan Road, Larkhall*.—Three empty dwellings, the subject of a Demolition Order—demolished.

66-70 *Percy Street, Larkhall*.—Empty dwellings—demolished.

Huntershill Quarry Houses, Bishopbriggs.—Staircase—taken down.

Duff's Land, 11-19 Main Street, Holytown.—Three stone-built coal cellars against east boundary wall at rear—repaired.

Budhill Avenue and Crammond Terrace, Shettleston.—Derelict building at corner—barricade provided.

28-34 *Rhindsmuir Road, Baillieston*.—Stone building, formerly dealt with by Demolition Order—demolished.

73-81 *Auchinairn Road, Auchinairn, Bishopbriggs*.—Row of brick-built coal cellars—demolished.

Kirklee, Manse Road, Carmunnock.—Brick-built water-closet at rear—repaired.

40-46 *Old Glasgow Road, Uddingston*.—Brick chimney and partly demolished stone gable—demolished.

10 *Cemetery Road, High Blantyre*.—Stone-built gable wall—repaired.

5 *Muir Street* and 117 *Union Street, Larkhall*.—Stone-built chimney-head—repaired.

8-10 *Springfield Road, Auchinairn*.—Stone-built boundary wall at rear and part of wall in Auchinairn Road frontage—repaired.

Nelson's Land, 89-95 Main Street, Overtown.—Roof of empty dwellings formerly dealt with by Closing Order—secured.

12 *Logan Street, Blantyre*.—Dwelling-houses—made secure.

Cuthbertson's Buildings, Kingsonsknowe, Lanark.—Building which was subject of Demolition Order—demolished.

Rowan Terrace, 30 Old Glasgow Road, Uddingston.—Stone gable and brick chimney of partly demolished property—demolished.

Wellbank Place, Church Street, Uddingston.—Derelict stone-built coal cellar in back court—demolished.

189-191 *Carmyle Avenue, Carmyle*.—Walls of partly demolished property dealt with by Demolition Order—demolished.

Rowan Terrace, 30 Old Glasgow Road, Uddingston.—Stone chimney-head—temporarily repaired.

57-59 and 67-75 *Cumbernauld Road, Mollinsburn*.—Buildings comprising partly demolished properties dealt with by Demolition Orders—demolished.

Murray House, Crawford.—Building destroyed by fire—nothing done at the close of the year.

14 *Alpine Street, Blantyre*.—Brick-built stairs giving access to unoccupied dwellings—barricade provided by Local Authority.

37 *Dyke Street, Baillieston*.—Brick-built chimneyhead—repaired.

193 *Auchinairn Road, Auchinairn, Bishopbriggs*.—Stone-built east boundary wall—repaired.

Sunnybank, 115 Waterside Road, Carmunnock.—Dormer window (wood facings and ornamental wood apex piece)—repaired.

165 *Main Street, Forth*.—Roof of dwelling dealt with by Demolition Order—nothing done at the close of the year.

11-13 *Woodlands Square, Law*.—Brick-built privies and ashpit—demolished.

48 *Kirkintilloch Road, Bishopbriggs*.—Stone-built chimneyhead—repaired.

Westburn Terrace, Kirkmuirhill.—Three brick-built coal cellars—nothing done at the close of the year.

Drainage.

There are still 63 Special Drainage Districts within the County, no new districts having been formed during the year. The boundary of the Mount Vernon Special Drainage District was enlarged.

New Sewers.—The following information was supplied by the County Drainage, &c. Engineer, as to sewers constructed during the year, viz. :—

Situation of Sewer.	Diameter of Pipe.	Yards.
Second and Fourth Avenues, Millerston, ...	9"	327
Blairbeth, Cambuslang,	12"	275
Do., do.,	9"	415
Cleland Road and High Street, Newarthill, and Outfall Sewer at Carfin,	18"	466
Do., do.,	12"	690
Do., do.,	9"	470
Waterside Road and Kittochside Street, Carmunnock,	9"	575
Corsethill Road, Glespin,	12"	504
Do., do.,	9"	240
Clydesdale Road Intercepting Sewer, Mossend,	21"	516
Do., do.,	18"	552
Do., do.,	15"	540
Do., do.,	12"	361

Situation of Sewer.	Diameter of Pipe.	Yards.
Reconstruction of sewers in Jerviston Street and Carfin Street, New Stevenston, ...	15"	137
Do., do.,	12"	244
Do., do.,	9"	207
Skellyton Intercepting and Outfall Sewers, Larkhall,	24"	553
Do., do.,	21"	223
Do., do.,	18"	782
Do., do.,	15"	636
Do., do.,	9"	42
Outfall Sewer from Mount Vernon to Barrachnie,	36"	1,705
Do., do.,	27"	370
Do., do.,	24"	581
Do., do.,	18"	215
Do., do.,	15"	90
Garrowhill Feuing Development,	24"	112
Do., do.,	21"	230
Do., do.,	18"	357
Do., do.,	15"	1,308
Do., do.,	12"	416
Do., do.,	9"	4,000
Wester Road, Mount Vernon,	12"	325
Do., do.,	9"	950
Meadowhead Road, Plains,	9"	147
Benhar Road, Shotts,	12"	308
Do., do.,	9"	424
Outfall Sewer from Uddingston to Daldowie,	48"	792
Do., do.,	36"	1,055
Do., do.,	24"	1,225
Outfall Sewer from Baillieston to Daldowie,	36"	1,090
Do., do.,	24"	1,232
Do., do.,	21"	470
Do., do.,	18"	430
Do., do.,	15"	280

Situation of Sewer.				Diameter of Pipe.	Yards.
<i>Housing Schemes—</i>					
Kennelburn Road, Chapelhall,	...	...	...	15"	82
Do., do.,	...	...	...	12"	89
Do., do.,	...	...	...	9"	432
Moodiesburn, Chryston,	...	...	...	9"	143
Westburn Road, Cambuslang,	...	...	...	9"	768
Kingshill, Shotts,	...	...	...	9"	381
Gallowhill, Carmunnock,	...	...	...	9"	203
Croft (No. 2), Larkhall,	...	...	...	9"	236
Hawksland Road, Kirkfieldbank,	...	...	...	9"	202
Plains (No. 4), Plains,	...	...	...	9"	127
Muirside, Baillieston,	...	...	...	9"	598
Langmuir (No. 9), Bargeddie,	...	...	...	9"	668
Springhill (No. 4), Shotts,	...	...	...	9"	171
Lockhart Street, Stonehouse,	...	...	...	9"	236

The number of connections made to public sewers was 237.

At Glespin a complete installation, consisting of tank, filters, Humus tanks and sludge drying beds, was constructed and is in operation.

Biggar.—A complaint was received regarding the pollution of a stream flowing through the policies of Cormiston Towers, Biggar, caused by the drainage from a piggery in the vicinity. The matter was taken up with the owner of the piggery, who had the ditches cleaned out. The matter is still under observation.

Complaints were received as to foul odours coming from a cesspool dealing with the drainage of Causewayend District, Biggar. The cesspool was cleaned out, since when no further complaints have been received.

Braehead.—Following upon the introduction of a gravitation water supply to Braehead Village, many owners of properties introduced sinks, etc., to their dwellings. Owing to the alleged increased pollution, the owner of the lands receiving the discharge from the village has threatened to discontinue the privilege, and the matter is presently under consideration.

New Lanark.—A complaint was received regarding foul smells arising from the River Clyde at New Lanark from a septic tank which deals with the sewage of the village. On examination, no nuisance conditions were found, but, on our recommendation, the owners extended the pipe from the filter farther into the main flow of the river.

Stonehouse.—On enquiry being made into a complaint as to pollution of the Corslet Burn at Stonehouse, it was found that a privy had been erected over the burn by the tenant of Burnhead. The privy has now been removed.

Chapelton.—Noltlairs ditch was again the subject of complaint, and the local Ratepayers' Association requested that the village should be formed into a Special Drainage District. A sub-committee made an inspection, and the matter is still under consideration.

Bothwell.—The Pow Burn, in the vicinity of Kirklands Mental Hospital, Fallside Road, Bothwell, was again the subject of a complaint by the tenant of Bothwellpark Farm, it being alleged that sewage was being discharged into the stream. As the result of investigations and tests it was found that sewage emanated principally from water closets at the quarry. This finding was conveyed to the quarrymasters, who had a tank and filter provided, and conditions have been greatly improved.

A slight discharge of sewage from another obscure source is being investigated.

Caldercruix.—Complaints were again received with regard to the pollution of the Davie Burn, referred to in last Annual Report. On investigation it was found that the flow of water was insufficient for cleansing the water channel, as it was all being passed on to Hillend Reservoir. The Railway Engineer was interviewed, and made arrangements for the passing down of sufficient water to remedy the complaints.

Shettleston.—The condition of the Light Burn, referred to in last Annual Report, was the subject of a complaint to the Department of Health. Investigations were made by the Department's Inspectors, and a report submitted to the County Council. A sub-committee duly inspected the burn and the piggeries from which sewage pollution

was caused. Further action has been delayed, as negotiations are proceeding between the owners of the pigstyes and a Government Department, who contemplate acquiring the ground on which the styes are situated.

Baillieston.—A complaint was received from the owner of a dwelling-house in Easterhouse Road, as to the pollution of the ground surrounding his house by sewage. On examination it was found that a drain taking the sewage of three other properties passed through the front garden of complainer's house, the drain having been laid before his house was erected. An obstruction at the connection of this drain to the highway drain was located and cleared, since when no further trouble has been experienced.

Shotts.—During the year the sewer at Benhar Road was extended to the boundary of the Special District. Following on this extension the drainage from the properties involved in the pollution of the Gill Burn at Calderhead was taken into the new sewer.

The nuisance complaint at Kirk Road, which was the subject of grievance by the feuars in that area for many years, particularly during the summer period, has now been definitely removed.

Rutherglen.—A complaint received regarding an alleged choked sewer at Upper Bourtree Drive, Burnside, was investigated, when it was found that the drainage from a filter had been disconnected from its former outlet, and not connected to the new sewer just laid. On negotiating with the owner, the affected drainage system was connected to the new sewer.

Foul Ditches.—Several ditches throughout the County into which sewage is discharged were cleaned out during the year at the instance of the Local Authority.

Water Supply.

The water supply from the various reservoirs belonging to the Local Authority was more than sufficient to meet all demands. Complaints were received as to local deficiencies, but these were mostly found to be due to deficient service pipes, and, on being brought to the notice of the respective owners, were remedied in every instance.

Extensions of Water Pipes.—The following is a note, prepared by the County Water Engineer, showing the extensions of water pipes carried out during the year :—

	Diameter of Pipe.	Yards.
Auchengray, Braehead, Forth, Haywood, Climpy, Carnwath, Cleghorn, New- bigging,	6"	5,100
Do., do.,	4"	12,670
Do., do.,	3"	11,350
Do., do.,	2"	9,420
Luckenburn Farm, New Monkland, ...	2"	1,000
Easter Blairlinn Farm, New Monkland, ...	2"	520
North Road Housing, Bellshill,	4"	300
Thorn Road Housing, Bellshill,	3"	1,000
Do., do.,	4"	250
Newarthill Housing,	4"	100
Do., do.,	3"	350
Calder Street Housing, Blantyre,	3"	440
Westburn Road Housing, Cambuslang, ...	3"	650
Springwells Housing, Blantyre,	4"	530
Sidehead Road, Stonehouse,	4"	200
Udston Cross Roads to Westmains, ...	3"	1,000
Kingshill Housing,	3"	500
Cleland Housing (off Chapel Street), ...	3"	340
Papperthills, Dewshill,	1½"	2,200
Do., do.,	2"	3,700
Do., do.,	3"	2,550
Chapelhall Housing,	4"	1,000
Easter Crookedstone Farm, Quarter, ...	2"	270
Auldhouse Road, East Kilbride,	4"	3,500
Do., do.,	3"	3,430
Ashgillhead Housing,	3"	200
Bankhead Farm, Glassford,	3"	250
Newhousemill Road to Auchentibber, ...	18"	3¼ miles.
Wildman Road, Law,	4"	250
Lawhill Road, Law,	3"	200

				Diameter of Pipe.	Yards.
Castlehill Colliery Baths,	...	...	...	3"	800
Do., do.,	...	...	...	4"	400
Adamswell Farm, Mollinsburn,	...	...	...	2"	430
Easter Queenslie Small Holdings,	...	...	...	3"	820
Brackenbrae Road, Bishopbriggs,	...	...	...	4"	260
Park Road, Bishopbriggs,	...	...	...	3"	260
Cardowan Avenue, Bishopbriggs,	...	...	...	3"	260

WATER SAMPLES.—In view of complaints having been received regarding the quality of water supplies from private sources, samples were obtained from the following places and submitted for chemical analyses :—

Bankhead Farm, Lanark.—Four samples of water from different sources of the farm's supply were taken because of alleged pollution by sewage from irrigation ditches of Crosslaw Special Drainage District. No evidence of pollution was found.

Panclair Farm, Bonnington.—Two samples of water were taken from the burn here and found to be satisfactory for cattle watering purposes.

Millheugh Bridge, Larkhall.—A sample of water taken from the horse trough here was found to be unsatisfactory. Arrangements were made with the Highways Department for the removal of the horse trough and water supply.

Killalees Farm, Kirkmuirhill.—A sample of water taken from the pump here was found, on examination, to be unsatisfactory. The matter is being taken up with the owner.

Tackhouse Farm, Strathaven.—A satisfactory water supply has now been provided for this farm, after various samples had been taken further to those referred to in last Annual Report.

Flush Burn, Carstairs.—As a consequence of alleged pollution of this burn by the effluent from the septic tank of Carstairs Special Drainage District, two samples of the burn water were taken, and, on examination, this was found to be suitable for cattle drinking purposes.

Browniemuir Cottage, Strathaven.—A sample of water taken from the well here was found to be free from pollution.

Glen Mill Cottage, Old Monkland.—A sample of water taken here was found to be slightly harder than is desirable in a domestic supply.

Annsfield Cottages, Hamilton.—A sample of water used for domestic purposes was found to be free from pollution, but very turbid and coloured. The tank was removed and no further complaints have been received.

Woodend Farm, Carnwath.—A sample of water from the pump well in the courtyard showed that the supply was unsuitable for domestic use. The matter has been taken up with the owner.

Scavenging.

There are now 57 Special Scavenging Districts within the County, new districts having been formed on 1st July, to include the villages of Bargeddie and Chapelhall.

The following is a short summary of the work of scavenging carried out in each Special Scavenging District during the year :—

AITKENHEAD, TAINNOCHSIDE AND BOTHWELLPARK.—The collection and disposal of refuse three times a week was carried out in a satisfactory manner by a contractor, all refuse being deposited in Fallside Quarry.

BAILLIESTON.—The daily collection and removal of refuse was carried out by a staff in the direct employment of the Ninth District Council. The scavenging of the new Garrowhill Housing Estate at Barrachnie was carried out twice weekly by a contractor. All the refuse was disposed of in Braehead Quarry.

Common Stairs, etc.—Two notices, in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, were served on occupiers of property who failed to keep clean the common stair giving access to their premises. Sweeping and washing have since been regularly carried out.

BARGEDDIE.—The work of scavenging this new Special Scavenging District commenced on 16th October, the refuse from ashbins being

collected and removed twice weekly, and from ashpits once weekly. The work was carried out satisfactorily by a contractor, who deposited the refuse in Braehead Quarry.

BELLSHILL AND MOSSEND.—The collection and removal of refuse within this Special District was undertaken daily by a staff in the direct employment of the Sixth District Council, who employ a superintendent to direct the work. The refuse was disposed of on waste ground at Boggsbrae.

Common Stairs, etc.—Ten notices, in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were served on owners of properties, requiring them to whitewash, or, at their option, to paint the walls and roofs of common passages and staircases. In every instance the work was duly carried out. Three notices were also served on occupiers who had failed to keep clean the common passages giving access to their premises. Sweeping and washing of the passages have since been regularly attended to.

BISHOPBRIGGS AND AUCHINAIRN.—The work of collection and removal of refuse was carried out in a satisfactory manner by a contractor. The refuse was disposed of in Huntershill Quarry.

Successful proceedings were taken by the Police against rag-pickers and others for trespassing on the coup, and since then there has been no further trouble.

Common Stairs, etc.—One notice was served on an owner of property requiring the limewashing or painting of a common passage and staircase, and the terms of the notice were duly complied with.

BLACKWOOD.—The refuse in this Special District, which includes Blackwood, Kirkmuirhill, and Auchenheath, was collected twice a week by contractors and deposited in coups and on farm lands. The work was carried out in a satisfactory manner.

Common Stairs, etc.—Three notices were served on occupiers of property, requiring the sweeping and washing of common passages. Sweeping and washing have since been regularly carried out.

BLANTYRE.—Owing to the unsatisfactory manner in which the work of scavenging was carried out by contract, referred to in last

Annual Report, the Fifth District Council decided to carry out the work by direct labour, under the supervision of their superintendent. For this purpose two motor freighters were purchased and the refuse was removed daily to a coup in the public park, where it is used for levelling purposes.

Common Stairs, etc.—In ten cases notices were served on owners of property, requiring the whitewashing or painting of common passages and staircases, and in each case the necessary work was duly carried out. In two cases notices were also served on occupiers who had failed to keep clean the common passage and staircase giving access to their premises. Sweeping and washing have since been regularly attended to.

BOTHWELL.—The daily collection and removal of refuse to Fallside Quarry was undertaken satisfactorily by a staff in the direct employment of the Sixth District Council. The contractor engaged during the winter months to collect and remove the contents of the ashbins three times weekly from the housing schemes also gave satisfaction.

BRAEHEAD.—The twice-weekly collection and removal of refuse continues to be satisfactorily carried out by a contractor, and the refuse deposited in an old quarry. One privy-midden was abolished during the year.

BRAIDWOOD.—A staff in the direct employment of the Carluke Special District collect and remove by motor refuse collector the refuse from ashbins twice weekly, and ashpit refuse once a week. The refuse is deposited in Quarry Coup, Carluke.

BUSBY.—The collection and removal of refuse was undertaken by a contractor twice a week, all refuse being deposited in a coup at Busby Glen.

CALDERBANK.—The refuse from this Special District was removed to farm lands twice weekly by a contractor. The work was done satisfactorily.

CAMBUSLANG.—The daily collection of refuse was carried out in a satisfactory manner, the refuse being removed to the land reclamation scheme at Morriston Loch by a contractor, who used his own motor vehicles until November, when a new ten-cubic-yard Chelsea motor freighter was provided by the Eighth District Council.

Reference was made in last Annual Report to the almost completed flood protection bank at Morriston Loch. The College Authorities offered to restrict the boundaries of one playing pitch, thus allowing the bank to be carried forward to the western boundary of the field, and giving complete protection to the whole field from encroachment by the River Clyde and the stream at the east end.

The bank, so far as completed, was sown with grass seed, growth being so successful that the bank has now merged into the surroundings and looks a part of the natural landscape.

The work of disposing of the refuse has been highly satisfactory, and it is pleasing to record that not a single complaint was received during the year.

Common Stairs, etc.—A notice was served on an owner of property requiring the whitewashing or painting of a common passage and staircase, and the necessary work was duly carried out. In seven cases notices were also served on occupiers who had failed to keep clean the common passage and stairs giving access to their premises. Sweeping and washing have since been regularly carried out.

CARLUKE.—The work of scavenging in this Special District was carried out satisfactorily by a staff employed by the Third District Council, refuse from ashbins being collected thrice weekly, from ashpits once a week, and thereafter deposited in Quarry Coup, Carlisle.

CARMUNNOCK.—As formerly, the work of scavenging in this Special District was undertaken by a contractor, the refuse being collected and removed to a coup once a week. The work was done efficiently.

CARMYLE AND MOUNT VERNON.—The thrice-weekly collection and removal of refuse was carried out satisfactorily by a contractor, the refuse being deposited in a coup.

Common Stairs, etc.—Eight notices were served on owners of property requiring the whitewashing or painting of common passages and staircases, and the necessary work was duly executed.

CARNWATH.—The thrice-weekly collection and removal of refuse was carried out in a satisfactory manner by a contractor and the refuse deposited on moorland at Planton Toll.

CARSTAIRS.—The removal of refuse three times a week was undertaken satisfactorily by a contractor, who deposited the refuse in an old sand-pit.

CARSTAIRS JUNCTION.—The daily collection and removal of refuse was carried out satisfactorily by a contractor, all refuse being deposited in a disused sand quarry.

CHAPELHALL.—The work of scavenging this new Special District was commenced on 16th October, the refuse from ashbins being collected and removed twice weekly, and ashpit refuse at least once a month. The refuse was disposed of by a contractor on farm lands, and the duties were carried out in a satisfactory manner.

CHRYSTON AND MUIRHEAD.—The work of scavenging in this Special District was carried out satisfactorily by a contractor, all refuse being collected and removed twice weekly. No further trouble was experienced with pollution of the peat trenches at Lilybank Coup referred to in last Annual Report.

CLELAND AND OMOA.—The refuse in this Special District was collected and removed three times weekly to farm lands by a contractor. During the year five ashpits were abolished.

COALBURN.—The refuse was collected and removed thrice weekly by a contractor, and deposited in a coup at Bellfield. Trouble was experienced with this coup during the year owing to fire. Workmen were employed to subdue the outbreak, and it was recommended to the District Council to extend the coup by taking in a further piece of ground and to adopt a different method of tipping for the contractor to carry out. These recommendations have been carried into effect and there has been no recurrence of the trouble.

CRAWFORD.—The refuse was collected and removed weekly by a contractor, who disposed of it in a coup on the lands of Midlock Farm. The work was done satisfactorily.

CROSSFORD AND HAZELBANK.—The refuse was collected three times a week by a staff employed by the Second District Council, and deposited in a coup at Byrewood, Kirkfieldbank.

CROSSLAW.—The twice-weekly collection and removal of refuse was undertaken by a contractor, who carried out the work in a satis-

factory manner. The refuse was deposited in a coup belonging to the Lanark Burgh Authority.

DALZELL AND NETHERTON.—The daily collection and removal of refuse was carried out satisfactorily by a contractor, the refuse being disposed of in coups. The contract is conjoint with Hamilton Road Special Scavenging District.

Common Stairs, etc.—A notice to whitewash or paint a common passage and staircase was served on an owner of property, and the necessary work was duly carried out.

DOUGLAS.—The daily collection and disposal of refuse was carried out by a scavenger in the direct employment of the Second District Council, all refuse being deposited in a coup at Pathhead.

EAST KILBRIDE.—The work of collection and removal of refuse was carried out thrice weekly by a contractor, who deposited the refuse in a coup at Duncanrigg Farm.

FORTH.—The daily collection and removal of refuse was carried out satisfactorily by a contractor, the refuse being deposited in coups. Seven privy-middens were abolished during the year.

GARTLEA.—The weekly collection and removal of refuse to a coup was carried out in a satisfactory manner by a contractor.

GARTCOSH.—The refuse in this Special District was collected and removed twice weekly by a contractor. The refuse was utilized in a market garden and gave rise to no complaint.

GLASSFORD.—The refuse from the dustbins in this Special District was collected twice weekly, and the contents of ashpits removed at least once a month, or whenever a cartload had accumulated. The work was carried out satisfactorily by a contractor, who removed the refuse to farm lands.

GLENGOWAN AND CALDERCRUIX.—The refuse from ashbins was collected and removed by a contractor twice weekly, and the contents of ashpits removed at least once a month, all refuse being disposed of on farm lands.

HAMILTON ROAD.—The daily collection and removal of refuse was carried out by a contractor, the refuse being disposed of in a coup. The contract is conjoint with Dalzell and Netherton Special Scavenging District.

HARTHILL.—In this Special District the refuse from ashbins was removed twice weekly and the contents of ashpits removed at least once a month, all refuse being disposed of on farm lands and moorland. The work was satisfactorily undertaken by a contractor. Three ashpits were abolished during the year.

HAYWOOD.—The contents of the privy-middens and ashpits were removed fortnightly by a contractor, and the refuse deposited in a coup in the moorland. Four privy-middens were abolished during the year.

HOLYTOWN, NEW STEVENSTON, AND CARFIN.—The daily collection and removal of refuse was carried out in an efficient manner by a staff in the direct employment of the Sixth District Council. During the year the refuse destructor at New Stevenston was abandoned, and all refuse is now disposed of on waste land at the old Carfin Brickwork, and at Carfin Hall, New Stevenston.

KIRKFIELD BANK.—The refuse was collected three times weekly by a staff in the direct employment of the Second District Council and disposed of in a coup at Byrewood.

Common Stairs, etc.—A notice was served on an owner of property requiring the whitewashing or painting of a common passage and staircase, and the necessary work was duly carried out.

LARKHALL.—The daily collection and removal of refuse was carried out in a satisfactory manner by a staff in the direct employment of the Fourth District Council, the refuse being deposited in a coup and on farm lands.

Common Stairs, etc.—Two notices were served on owners of property requiring the whitewashing or painting of common passages and staircases, and in each case the necessary work was duly executed. Six notices were also served on occupiers who had failed to keep clean the common passages giving access to their premises. Sweeping and washing of the passages have since been regularly attended to.

LAW.—The refuse from ashbins was removed three times weekly, and the contents of ashpits removed at least once a month by a contractor, the refuse being deposited in coups and on farm lands. The work was carried out satisfactorily.

LEADHILLS.—The weekly collection and removal of refuse was undertaken by a contractor, the refuse being deposited in two coups.

LESMAHAGOW.—The daily collection and removal of refuse was carried out in a satisfactory manner by a staff in the direct employment of the Second District Council, the refuse being deposited at Craighead Park, where ground is being made up.

NEWARTHILL.—The collection and removal of refuse to farm lands was satisfactorily carried out by a contractor, the contents of ashbins being removed twice weekly and the ashpits emptied at least once a month.

NEWMAINS.—The daily collection and removal of refuse was carried out by a contractor, the refuse being deposited in a coup and on farm lands.

NORTH SHETTLESTON.—The collection and removal of refuse was carried out satisfactorily by a contractor and three men employed by the District Council. A daily service was maintained for tenement properties and a twice-weekly service for the National Housing Scheme, Springboig and North Mount Vernon. The refuse was disposed of in Cranhill Quarry, and, when this was filled up, a return was made to the filling up of the low-lying ground at Craigend.

Common Stairs, etc.—A notice to whitewash or paint a common passage and staircase was served on an owner of property, and the necessary work was duly carried out. A notice was also served on an occupier who had failed to keep clean the common passage giving access to his premises. Sweeping and washing of the passage have since been regularly attended to.

OVERTOWN AND WATERLOO.—The scavenging work was carried out satisfactorily by a contractor, all refuse from ashbins and dry closets being removed twice weekly, and the contents of ashpits removed at least once a month. The refuse was deposited in coups.

PONFEIGH.—The refuse was collected and removed four times weekly by a contractor, and deposited in a disused quarry at Townhead. The work was done satisfactorily.

RUTHERGLEN.—The collection and removal of refuse was carried out by a contractor three times weekly from Farme and Eastfield tenement properties, and twice per week from residential areas and housing schemes at Bankhead, Eastfield and Burnside. Owing to the rapid increase in building within this area the contractor had to resort to the use of a motor vehicle, in addition to the freighter provided by the Eighth District Council, for the collection and removal of the refuse to Morriston Loch Coup.

Common Stairs, etc.—Notices were served on five owners of property requiring the whitewashing or painting of common passages and staircases, and in every instance the work was duly carried out.

SALSBURGH.—The refuse was collected and removed twice weekly by a contractor to farm lands. The work was done in a satisfactory manner. One privy-midden was abolished during the year.

SHOTTS AND DYKEHEAD.—The daily collection and removal of refuse was carried out in an efficient manner by a staff in the direct employment of the Seventh District Council. The refuse was deposited in two coups which were kept in a satisfactory condition. During the year three privy-middens were abolished.

Common Stairs, etc.—A notice to whitewash or paint a common passage and staircase was served on an owner of property, and the necessary work was duly carried out.

SOUTH LENZIE.—The refuse collection and removal was carried out twice weekly by a contractor in a satisfactory manner, all refuse being deposited in an old quarry at Boghead.

Common Stairs, etc.—Notices were served on four occupiers in respect of their failing to keep clean the common passages giving access to their dwellings. Sweeping and washing have since been regularly attended to.

STEPS.—The collection and removal of refuse was carried out in a satisfactory manner by a contractor twice weekly. The refuse

was deposited on low-lying marshy ground on the west side of Magazine Road, and was well covered over with a top dressing of engine ashes.

STONEHOUSE.—The work of refuse collection and removal twice a week was carried out satisfactorily by a contractor, all refuse being deposited in a coup rented by the Local Authority.

STRATHAVEN.—The daily collection and removal of refuse was undertaken by a contractor, who deposited the refuse in a coup provided by the Local Authority. The work was carried out satisfactorily.

SYMINGTON.—The scavenging service for this new district was commenced on 24th March. The work of collection and removal of refuse was carried out satisfactorily by a contractor, who deposited the refuse in a coup at Hospital Field. Five dry closets and ashpits were abolished during the year.

UDDINGSTON.—The refuse was collected and removed daily by a contractor to the coup at Fallside, the work being done in a satisfactory manner.

HOUSING SCHEMES OUTWITH SPECIAL SCAVENGING DISTRICTS.—The collection and removal of refuse twice weekly from the dwellings at the following housing schemes still outwith Special Scavenging Districts was carried out by contractors under the supervision of the local sanitary officers, viz. :—Chapelhall and Drumpark (to 15th October), Ashgillhead, Broomhouse, Carnbroe, Eddlewood, Ferniegair, Greengairs, Glenboig, Glenmavis, Kingshill, Meikle Earnock, Plains, and Ravenstruther, and once weekly at Symington (to 23rd March), Moodiesburn and Thankerton.

PROVISION OF DUSTBINS.—During the year, 107 notices in terms of Section 23 of the Burgh Police (Scotland) Act, 1903, were served on owners of tenement houses within Special Scavenging Districts, requiring them to provide proper covered galvanized-iron ashbins of specified cubic capacity. In most cases suitable ashbins were immediately provided, and the remainder were reported to the Committee with a view to proceedings, in terms of Section 24 of the Act, being instituted. It was not found necessary, however, to take legal action, as the necessary ashbins were duly supplied.

Private Streets.

Blantyre.—A further meeting was held with the owners of property in Rosebank Avenue, Blantyre, referred to in last Annual Report, and it was agreed that the road be made up, the work to be done by the County Highways Department. No work had been done, however, by the end of the year.

Bellshill.—Complaints were received regarding the unsatisfactory condition of the roads in the vicinity of the houses at New Orbiston Rows, Parkhead Rows and Douglas Park Rows, Bellshill, and the question of the repair of the roads was taken up with the owners. In view of their attitude, however, a sub-committee inspected the roadways, and it was subsequently agreed that the owners would carry out certain specified improvements and repair work on the roads.

Bothwell.—The private streets at Bothwellhaugh were again the subject of complaint, and the colliery company are being pressed to have them put into a satisfactory condition.

Cambuslang.—Complaints having been received as to the unsatisfactory condition of the back court at Buchanan Square, Cambuslang, the matter was taken up with the owners, and, after various meetings, the parties agreed to reconstruct the road of access from Glasgow Road and to form a new roadway along the square.

Pretoria Street was also the subject of complaint, due to its unsatisfactory condition. Notices were served on the various owners requiring them to carry out the repairs necessary on the road, in order to conform to the provisions of Section 39 of the Public Health (Scotland) Act, 1897. As nothing had been done by the owners within the time allowed, it was eventually agreed that the County Council should themselves execute the repair works and thereafter recover the expenses incurred from the owners.

Coalburn.—As a result of complaint regarding the unsatisfactory condition of certain private streets at Coalburn, an inspection was made and estimates were afterwards submitted to the committee, showing the cost of (a) making up and (b) repairing the private streets, viz:—Garden Street, Schoolhouse Lane, School Lane, road to Coalburn House, and road from Tinto View to Railway Terrace. Negotiations with the various owners are in progress.

Hamilton.—A complaint was received regarding the unsatisfactory condition of M'Creath Street, Cadzow, and the matter was taken up with the colliery company, who had certain repair work executed.

Shotts.—A sub-committee met with the owners of property in Greenwood Street, Shotts, with regard to the question of the repair or making up of same, and it was agreed to have the street made up to highway standard. The work is being carried out by the County Highways Department.

Nuisances.

During the year 74,062 inspections were made for the detection of nuisances, and the number of nuisances recorded was 1,845, comprised chiefly of choked drains, sinks and water closets. A number of such chokages were caused through carelessness on the part of occupiers of dwellings, and warnings were given to those concerned.

Intimations, under Section 19 of the Public Health Act, were issued to authors of nuisances in 1,318 cases, and in many instances the cause of complaint was immediately removed. Where the intimations had no attention, statutory notices, under Section 20 of the Act, were served, and these numbered 141.

Prosecution.—Legal proceedings were found necessary in respect of a tenant who, despite repeated warnings, kept a filthy and unwholesome dwelling at 25 Rosehall Road, Shotts. After service of a summons, however, the tenant had the premises thoroughly cleansed and new floor covering provided. In the circumstances the Sheriff dismissed the case.

Unfenced Mine Shafts.—Intimations were received in the course of the year from H.M. Inspector of Mines of the abandonment of sixteen mines, and calling the attention of the local authority to the provision of Section 26 of the Coal Mines Act, 1911, requiring every shaft and outlet to be kept surrounded by a structure of a permanent character, sufficient to prevent accidents, and making failure to comply with that requirement a nuisance within the meaning of Section 16 of the Public Health Act. The mine shafts were situated as follows :—Ravenshall, Cleland ; Carfin, Motherwell ; Whittagreen, Newarthill ; Spalehall Nos. 2 and 3, Newarthill ; Spoutcroft, Greenhill ; Ballochney Nos. 4 and 5, Whiterigg ; Millhill No. 2, Rawyards ; Leaend, Airdrie ; Braeside, Darngavil ; Braeside No. 2, Darngavil ; New Provanhall,

Provanhill ; Auchinlea, Cleland ; Kennox No. 14, Douglas ; and Hillhead No. 2, Calderbank. The matter was taken up with the various owners, and in most cases precautions have been taken. In the remaining cases, negotiations are proceeding with a view to the necessary work being carried out.

A communication appeared in a local Sunday newspaper regarding the existence of a dangerous and unprotected mine shaft at Carmuir, Forth. On investigation being made, conditions were found to be satisfactory, and the correspondent afterwards made apology by letter for his inaccurate statement.

Burning Bings, etc.—During the summer, complaints were received of smoke and fumes from a bing at No. 7 Colliery, Coalburn. On inspection, it was found that a small bing near the pit head had gone on fire, and the outbreak was spreading and endangering the main bing nearby, where tipping was in progress. Meetings were held with the colliery management, and a system of blanketing the bing with dead ashes and similar material was adopted, with resulting daily diminution of the nuisance conditions.

The mineral refuse bing at the abandoned colliery at Clydeside, Uddingston, referred to in previous reports, is still burning, though little odour is felt.

At Viewpark Colliery, Uddingston, referred to in last Annual Report, despite certain measures applied by the owners, the bing continued to emit odours which were intensified towards the close of the year. The company have been notified of the necessity of taking every precaution to minimise the effects of the fire.

The extensive deposit of mineral refuse at Bothwell Castle Colliery, Bothwell, is still burning at the south and south-west faces, but the fire has been practically extinguished on the west face. Measures are being taken to prevent the spread of the fire.

The mineral refuse bing at No. 14 Pit, Rosehall, Coatbridge, was found to be burning actively and emitting offensive odours. A meeting was held on the ground with the representatives of the company, when no remedial measures appeared practicable owing to the widespread area of the burning material. The company's manager expressed the opinion that the burning was superficial, and that the bing would burn itself out within a year.

The bing at Auchengeich Colliery, referred to in last Annual Report, is still burning, but not so actively as formerly, and the tipping of fresh material is now being carried on over a part of the bing not affected by fire.

Complaints were received anent an offensive odour due to the burning in an incinerator of the refuse of a poultry farm in Bothwell. On inspection, the complaint was found justified, and all cause for same was dispersed when the incinerator was removed to a more remote corner of the poultry farm.

Verminous Houses.—Many inspections of bug-infested houses were made during the year, and advice was given as to the necessary precautionary measures to be adopted. In cases where tenants were to be removed from infested dwellings to new Council houses, fumigation by sulphume was first carried out with good results. In several houses the wood facings were removed, and the walls sprayed with carbolic acid, etc., and such action generally exterminated the vermin.

Rats and Mice (Destruction) Act, 1919.—Many investigations were conducted during the year in connection with the infestation by rats of various premises throughout the County. In all instances occupiers of lands and premises were informed of their obligations under the Act, and where necessary instructions and advice were given as to the necessary action. On revisitation, it was generally found that the vermin had been exterminated, or considerable progress had been made in their destruction.

Inspection of the refuse dump and the ground adjoining the slaughterhouse belonging to the Burgh of Biggar was made, and an infestation of rats noted. The matter was taken up with the Town Council, and a demonstration of the Cyanogas method of extermination was carried out at the dump. The Council thereafter purchased a Cyanogas outfit, and their premises are now regularly treated.

Complaint was received from the owner of East Bosfield, East Kilbride, that rats were invading his property from a refuse coup in the vicinity. On making enquiry, it was found that there was no refuse coup near the premises, and the complaint was groundless.

Complaints were received of rat infestations at tenement properties adjoining the Light Burn at Flemington, Cambuslang. Various

inspection were made, and it was found that the stone retaining walls on each side of the stream were badly infested, the stonework being loose and badly holed, thus providing a good home for the rodents. The matter was taken up with the Land Superiors, and the wall on the east side has been put into a proper state of repair. The west side wall is also receiving attention.

As the result of complaints from tenants in a housing scheme at Hamilton Road, Larkhall, regarding rats infesting their gardens and out-houses, an examination was made of the ground near a garage opposite the housing scheme. These premises and adjoining tomato houses were treated with Cyanogas, and a number of rats killed. Rat holes in several of the gardens were subjected to Cyanogas treatment, but no rats were found. No further complaints have been received.

Cinemas.

The cinemas within the County were all regularly inspected during the year, and a good standard of cleanliness continues to be maintained in the halls and conveniences. Defects of a minor character were found in several premises, but these were immediately attended to on being brought to the notice of the managers concerned.

Public Conveyances.

During the year many inspections of public conveyances were made, and the general cleanliness of the vehicles was found to be good.

Workshops.

The number of workshops on the register at the close of the year was 479, being an increase of 5 on the previous year.

During the year two notices were received from H.M. Inspector of Factories of persons beginning to occupy workshops. The premises were duly inspected, measured, and the occupiers supplied with cards showing the capacity of each room and the number of employees permissible.

The inspections numbered 426, including 63 of factory bakehouses. The following cases found in the course of our routine inspections

were dealt with :—Four dirty workshops, two choked drains, leaky water closet, defective chimney vent, and broken ceiling plaster.

A complaint was received from H.M. Inspector of Factories that the water-closet accommodation at Westburn Steel Works was insufficient for the number of workers employed. Plans were submitted by the Company and approved, showing eight additional water-closets and a four-stalled urinal. The work is in hand.

Three lists, containing six outworkers, under Section 107 of the Factory and Workshop Act, were received from the City of Glasgow Authority, and inspections were made of all the premises. These were found in a satisfactory condition.

The following table gives the handicrafts carried on in the various workshops :—

Dressmaker,	13	Moss Litter Work,	1
Tailor,	62	Watchmaker,	6
Milliner,	3	Plumber,	33
Baker,	133	Motor Repairer,	21
Shoemaker,	68	Hosier,	6
Saddler,	9	Coachbuilder,	3
Blacksmith,	50	Painter,	5
Joiner,	54	Confectioner,	1
Cabinetmaker,	7	Tinsmith,	1
Oil Refiner,	1	Ham Curer,	1
Cement Slab Manufacturer,	1		
		Total,	479

Fire Escapes.—Fire escape facilities as required by this Department have now been provided at Cambuslang Dye Works, referred to in a previous Annual Report. An outside stairway has been constructed from the upper floor of the warehouse with necessary exit doors leading thereto.

The management of the Clyde Paper Company is presently endeavouring to improve the fire escape facilities at their Rutherglen Works on lines suggested by this Department.

At Harkness Laundry, North Road, Bellshill, a new exit door has been fitted on the premises complained of by H.M. Inspector of Factories.

Public Schools.

The various public schools within the County were inspected during the year, and several matters requiring attention were brought to the notice of those responsible. The general cleanliness of the schools and lavatories was found to be satisfactory.

At the request of headmasters, several schools were disinfected during the year.

Auldhouse.—As a result of complaints, the Local School Management Committee recommended to the Education Authority that the conversion of the existing pail closets to water-closets should be proceeded with, the drainage system for which was laid some years ago. Meetings were held at Auldhouse regarding a suitable outlet for the effluent from the septic tank, and the matter is still under consideration.

Tents and Vans.

During the year, 815 inspections of tents and vans were made, and, with several exceptions, all the premises were found in a satisfactory condition.

Gartgill.—A caravan at Gartgill was found to be in a dirty and overcrowded condition, and without latrine accommodation and a convenient water supply. The occupier and his family had been evicted from a house in Coatbridge, and took up their abode in an old furniture van, converted into a caravan. The matter is still being dealt with.

Caldercruix.—Complaints were received as to four families living in vans in the centre of Caldercruix Village without proper sanitary conveniences. The matter was taken up with the occupiers, and negotiations are proceeding for the erection of closet accommodation.

East Kilbride.—Complaints were received regarding the occupation by persons of huts and old bus bodies at Bethern Farm, Auldhouse, Philipshill, and Castle Glen, and the matter is being dealt with.

Avondale.—A complaint was received regarding hawkers using ground at Bamflatt Farm, alongside the old Stonehouse Road, for camping purposes. The offenders were removed and the farmer was requested to fence off the ground to avoid further cause for complaint.

Stonehouse.—A man and his family took up residence in an old bus body at Oil Work Braes. Despite warnings to the owner of the ground and the occupier, the bus is still occupied.

Summer Camps.—The camp at Lickprivick Farm, East Kilbride, was again run on very satisfactory lines, and no cause for complaint was found.

Interments.

The interments carried out at the expense of the Local Authority, under Section 69 (1) of the Public Health Act, numbered 42—5 adults and 37 infants—the deaths being due to various causes. The total shows a decrease of 7 from the previous year. The number of bodies claimed was 39, but no "sufficient person" undertook the burial. The total cost to the Local Authority amounted to £78 14s. 6d.

In every case where application is made to the Local Authority for the interment of a dead body by relatives or others, who allege that they are unable to bear the expense of the burial on account of poverty, it has been the practice of the Department to make careful inquiry into all the circumstances, particularly to ascertain whether the deceased person was insured in any benefit society, and, as a result, sums were afterwards recovered, amounting to £5 10s. 6½d.

Common Lodging-Houses.

There are only two common lodging-houses within the County area, and these are situated at Bellshill and Shotts. The keepers applied for, and were granted, renewal of registration. Both premises were regularly inspected and found in a satisfactory condition.

Dairies.

During the year, 1,944 visits of inspection were made by the Sanitary Staff to dairy premises, and in several instances structural defects were reported and dealt with under the Local Authority's By-laws.

As a result of complaints regarding dirty milk supplies, numerous special visits were made at milking time to dairy farms, and, where methods of milking were found to be unsatisfactory, instructions were given, with good results.

A number of cowkeepers were dealt with for failing to keep clean their dairy animals and byres, and on subsequent visits it was found that the warning had had the desired effect.

The general conditions found in dairy premises are steadily improving, and a much higher standard of cleanliness is being observed. This is due, in some measure, to improvements in structures and the adoption of labour-saving methods.

The installation of milking machines in various premises has secured a marked improvement through the elimination of milkers some of whom were far from satisfactory in their methods.

During the year the Milk (Special Designations) Order was amended, there having been introduced new designations which may be used in relation to milk, viz., "Certified," "Tuberculin Tested," "Standard," and "Pasteurised."

New Byres.—Progress continues to be made in the provision of new byres and improvements to dairy premises generally. The following plans were submitted to and approved by the Local Authority during the year, viz. :—

Muirlea, Biggar,	New Byre.
Swaites, Biggar,	Do.
Brackenhirst, Airdrie,	Two New Byres.
Bogside, Ashgill,	New Byre.
Netherfield, Strathaven,	Do.
East Hookhead, Strathaven,	Do.
West Cauldcoats, Strathaven,	Do.
Covington Hillhead, Thankerton,	Do.
Newlands, East Kilbride,	Do.
Basket, East Kilbride,	Do.
Upper Shieldhill, Carlisle,	Byre Conversion.
Hillhead, Carlisle,	Byre Extension.
Lower Carbarns, Wishaw,	Do.

Improvements in lighting and ventilation, &c., were made at other 58 dairy premises throughout the County.

Registration.—During the year, 65 certificates of registration were granted by the Local Authority, making a total of 1,671 registered dairies—1,312 producers and 359 retailers only—at the close of the year. Included in the foregoing total are 121 retailers by vehicles from outwith the County area. The approximate number of dairy animals found in registered dairy byres was 26,500.

Exempted Premises.—The conditions and cleanliness of exempted premises were generally found to be satisfactory.

Burgh of Biggar.—Within the Burgh the registered milkshop for bottled milk only continues to be kept in a satisfactory condition.

Burgh of Lanark.—There are two registered producer-retailers and four registered retailers of milk only within the Burgh, and the premises were all found to be kept in satisfactory order.

Milk and Dairies (Scotland) Order, 1934.—Several dairymen were dealt with during the year for failing to observe the requirements of Articles 5 to 16 of the Milk and Dairies Order, particularly to Article 13 thereof, which prohibits milk being consigned for transit by common carrier without the cans being locked or sealed, and in every case the warning had the desired effect.

CLEANLINESS OF MILK SUPPLIES.—The informal sampling of ordinary milk supplies within the County area was continued throughout the year, when 413 samples were obtained by the Sanitary Staff during early morning and afternoon milking at dairy farms and from milkshops and retail vehicles. The samples were submitted for bacteriological examination, and 299, or 72·4 per cent., were found to conform to the standard required for graded milk. The result shows an improvement on the previous year's figures.

In addition to the above, sampling of the milk supplied to various schools was carried out during the year, and 186 samples in duplicate were obtained for chemical and bacteriological examination. The results of examinations of these samples are dealt with in detail in the Medical Officer of Health's Report.

Dilapidated Milk Vessels.—Further complaints were received regarding the dilapidated condition of milk cans and lids issued by certain Dairy Companies, and, as a result of representations by the Department, there is a decided improvement in the condition of cans now delivered to producers.

Houses Let in Lodgings.

Owing to the scarcity of suitable housing accommodation in certain districts of the County, the registration of houses let in lodgings is still in abeyance. Numerous inspections were made, however, of houses where single lodgers were kept or apartments sub-let to families, and action was taken where gross overcrowding was found.

Frequent inspections were made of the only registered premises at Carluke and Strathaven, which were found to be kept in a satisfactory condition.

Offensive Trades.

There are within the County area seventeen private slaughter-houses, and these are situated as follows:—Abington; Carnwath; Crawford; Carstairs Estate Home Farm (Sheepery); Lanark (Knackery); Ponfeigh; Symington (Sheepery); Hareshawhead, Strathaven (Sheepery); Newarthill; Omoa (Knackery); Chapelhall; Caldercruix; Greengairs; Longriggend; Cleland (2); and Harthill. In the course of the year regular visits of inspection were made, and, although the structural conditions are not quite satisfactory in some cases, the premises were all found in a clean condition.

At the Symington slaughterhouse for sheep only, a new drainage system, water-closet accommodation for employees, improved water supply, and improvement of walls and floor surfaces have been carried out.

Public Abattoirs.—There are ten abattoirs in operation belonging to the Local Authority, these being situated at Carluke, Douglas, Forth, Lesmahagow, Blantyre, Bellshill, Larkhall, Shotts, Stonehouse, and Strathaven. All the premises were kept in a satisfactory condition during the year.

Other Offensive Businesses.—The operations at the Knackery at Omoa, where the manufacture of manure is also engaged in, continue to be conducted in a satisfactory manner.

The blood manure and tallow works at Carntyne, Shettleston, were carried on satisfactorily during the year. One complaint was received during the summer that offensive odours were being emitted from this work. On investigation it was found that no blood manure was being produced at the time of the complaint, as the business had been closed down for over a month when alterations were being made to machinery, and no raw material had been received.

The fish meal and manure work at Rutherglen was completely dismantled during the year, and only the oil extracting plant kept in operation. This plant gave rise to no trouble, as offal is not treated.

A tallow melting work at Garthamlock was completed during the year, but, on the first inspection thereafter, it was found that the buildings, etc., and treatment plant had not been constructed in accordance with the plans approved by the Local Authority. After negotiation with the owner, the works were shut down, and operations were not allowed to re-commence until a suitable vapour treatment plant had been installed.

Unsound Food and Food Inspection.

During the year there were 1,505 inspections of shops and other premises where foodstuffs were stored, and three seizures of fish, amounting to 119 lbs., were made. Particulars as to the inspection of meat are given in the County Meat Inspector's Report.

The quality of the foodstuffs and the state of the premises were generally found to be good. Some improvement was noted in motor vehicles used as fruit and fish carts, where the foodstuffs were so arranged as to be accessible without the necessity for the salesman to climb over his wares in order to reach a particular article, and also in the matter of protection from rain and dust.

Pigstyes.

Regular inspections of pigstyes were made during the year, and, with a few exceptions, the premises were found to be kept in satisfactory order and free from nuisance conditions.

One application for sanction to erect a pigsty at Miller Street, Glassford, was granted, and two applications in respect of premises at Jack's Road and Deanbrae Street, Uddingston, were refused by the Local Authority.

Provisional sanction was also granted in respect of new piggeries to be erected outwith populous places at Nos. 9, 10 and 12 Small Holdings, Ravenstruther ; Nos. 2, 3, 9, 14 and 16 Small Holdings, Cathburn, Newmains ; Westerfield, Busby ; Waterlands Nursery, Law Junction ; Airbles House, Motherwell ; St. Mary's Boys' Industrial School, Bishopbriggs ; and Mousebank Farm, Lanark.

An erection of wood, etc., at St. Mary's Industrial School, Bishopbriggs, set up for the keeping of pigs, was not considered satisfactory, and on the matter being taken up with the responsible party, the wooden erection was taken down and a proper brick and concrete piggery substituted.

Complaints were received as to the number of pigstyes, their situation, and the drainage outlet therefrom, at Green Farm, Wishaw. Investigations were made, and negotiations are in progress with a view to the existing nuisance conditions being remedied.

Small Holdings.—Considerable trouble was created at the Small Holdings at Claddens, Lenzie, due to various occupiers keeping pigs in the barn or steading building, and without having proper drainage. One Smallholder commenced erecting additional styes without sanction, and, on being informed of the necessity of obtaining the permission of the Local Authority, he afterwards submitted plans, which were not approved.

As a result, the question of pig keeping by Smallholders was taken up with the Department of Agriculture, but, at the end of the year, no definite aid had been obtained from the Department, in the way of advising Smallholders as to the type of erections, with systems of drainage to prevent nuisance conditions arising, which would meet the requirements of the Local Authority.

Burial Grounds.

The various burial grounds throughout the County continue to be conducted in a satisfactory manner.

CHURCHYARDS, ETC.—During the year, six interments were carried out in St. Ninian's Churchyard, Stonehouse, in a satisfactory manner.

No interments took place in East Kilbride Churchyard.

Burials are still being carried out in Carmunnock Churchyard, but the new cemetery which is presently being laid out should shortly be ready for use.

An Order in Council is now in operation at Carnwath Old Churchyard, and burials there are discontinued except in cases where reservation of right of burial has been secured. One interment took place this year, and was satisfactorily conducted.

The other old churchyards and burial grounds throughout the County continue to be kept in a satisfactory condition.

Obituary.

It is with deep regret that I record here the loss, through death, on 12th May, of Mr. Alex. Brown, Divisional Sanitary Inspector.

Mr. Brown joined the office staff of the Middle Ward District Public Health Department in the year 1914, and, after his return from active service in the Great War, he was appointed in 1920 to the outdoor Sanitary Staff, being subsequently promoted to the post of Divisional Sanitary Inspector for the Parishes of Carlisle and Cambusnethan (part).

He was one of the most conscientious of men, able but unassuming, courteous, and ever ready to give a helping hand and advice to those who sought his aid.

His death at the early age of 39 years has robbed us of an able and beloved colleague, and the Public Health Service is the poorer for his passing.

J. MILLAR,
County Sanitary Inspector.

County Public Health Department,
Beckford Street,
Hamilton, 30th April, 1937.

Report of the County Building Inspector.

BUILDING BY-LAWS.

The total number of plans lodged for approval amounted to 352. As in former years, a considerable proportion of these had not been prepared in accordance with the By-laws, especially those from some of the outlying districts. It was found necessary, in a great many cases, to have meetings on the site with the owners and architects before matters could be properly adjusted. All disconformities were reported to and dealt with by the committee. Nine sets of plans were withdrawn.

The nature of the buildings, as indicated by the plans lodged, were as follows :—

NEW BUILDINGS.—Houses and shops, 212 ; workshops, 15 ; public buildings, 15 ; and other buildings, 23 ; total plans, 265.

ALTERATIONS IN THE MODE OF OCCUPANCY.—Houses and shops, 52 ; workshops, 15 ; public buildings, 13 ; and other buildings, 7 ; total plans, 87.

18,151 inspections were made during the course of construction of the buildings. 12 contraventions of the Building By-laws were discovered, and these were reported to and dealt with by the committee.

3,134 applications of the smoke test were made to the drains and plumber work in connection with the sanitary fittings of new properties. In several cases the work was found defective and retests had to be made, but, on the whole, the work done by the contractors was of a very good standard.

In addition to the plans lodged under the Building By-laws, 322 plans were received, and approval granted for various erections of a minor character.

Housing (Scotland) Act, 1925.

No applications under Section III of the above Act were received for the erection or conversion of existing dwellings into two-apartment houses.

Housing (Scotland) Act, 1930.

719 houses in Improvement Schemes were inspected and reported on to the County Clerk as completed and eligible for grant, said houses complying with all the requirements of the Department of Health for Scotland.

Housing (Scotland) Act, 1935.

32 houses in Decrowding Schemes were inspected and reported on to the County Clerk as completed and eligible for grant, said houses complying with all the requirements of the Department of Health for Scotland.

Housing (Rural Workers) Act, 1926.

41 applications were received during the year for assistance to make alterations and improvements to 59 dwellings for the accommodation of agricultural workers and others whose economic condition is substantially the same as such workers, and a grant was sanctioned by the committee in each case.

As in previous years a number of the applications submitted were on incomplete lines and difficulty in some instances was experienced in getting applicants to carry out a proper reconditioning of the subjects with probably the addition of a bedroom where the house was of the two apartment type. In addition, efforts were made to see that the floor areas of any reconditioned house should be as near those recommended by the Department of Health as possible.

The applicants in some instances considered these conditions very stringent, but it was pointed out that the recent Housing Acts all aimed in this direction and that the Council expected any improvements which got the grant to be on the lines indicated. Many of the applicants were hesitant and as a result considerable time was spent in correspondence and meetings endeavouring to adjust plans of such schemes. The cost of some of the improvements have been much higher than in former years, but this is due to the standard of these gradually increasing and to the provision of a bath in nearly every case. Those described in the list as having been dealt with have all been carefully supervised during the execution of the work and the reconditioned dwellings obtained are now of a very good standard.

Building operations in connection with 28 applications (39 houses) were completed during the year, and Certificate " B " for payment of grant issued to the respective owners. The properties on which improvements were completed are as follows :—

(111) Crofthead Farm, Stonehouse—1 two-apartment house. A living room and scullery with washboiler, tub and sink combination, larder and w.c., were added to existing one-apartment house and a new drainage system with septic tank constructed, at a cost of £181 2s. 3d.

(201) Stonebyres, near Lanark—1 three-apartment house. Kitchen was remodelled and stable converted into bathroom and washhouse, with washboiler, tub and sink combination ; a larder was provided and a new drainage system with septic tank constructed, at a cost of £221 4s. 0d.

(241) Library Cottage, Robertson, Abington—1 two-apartment house. An annexe was built at rear, comprising scullery and bathroom, walls treated for dampness, lighting of kitchen improved and a new drainage system constructed, at a cost of £121 5s. 0d.

(244) West Quarter, Strathaven—1 three-apartment house. A store was converted into a bedroom, a bathroom constructed, annexe erected at side comprising scullery with washboiler, tub and sink combination, larder and coals, new wood floors laid, walls treated for dampness, roof and drainage system overhauled, at a cost of £280 15s. 7½d.

(245) Harecleugh, Crawford—1 three-apartment house. An annexe was erected at gable, comprising scullery with washboiler, tub and sink combination, bathroom and pantry, walls treated for dampness, water supply led on, new stair to attic bedroom constructed, lighting of bedroom improved, retaining wall built at rear and a new drainage system with septic tank constructed, at a cost of £286 13s. 3d.

(246) Whelphill, Crawford—1 four-apartment house. An annexe was erected at the rear comprising scullery with washboiler, tub and sink combination and bathroom, new window slapped in ground floor bedroom, water supply improved and a new drainage system with septic tank constructed, at a cost of £191 7s. 0d.

(247) The Kennels, Murdostoun—1 three-apartment house. An annexe was erected at rear, comprising scullery with washboiler, tub and sink combination, bathroom and larder, water supply led on and a new drainage system with septic tank constructed, at a cost of £178 12s. 6d.

(248) Uddington, Douglas—2 two-apartment houses.

(a) Cottage No. 2—An annexe was built at rear, comprising scullery with sink, w.c. provided, existing washhouse provided with tub and sink combination, ground at rear excavated, under floor ventilation provided.

(b) Cottage No. 3—Storeroom was converted into scullery with sink, w.c. and larder

A new drainage system with septic tank was also constructed. Total cost of improvements £180 8s. 0d.

(250) Craigend, Westtoun, Coalburn—1 five-apartment house. Ground floor room was converted into scullery with larder, bathroom and washhouse with washboiler, tub and sink combination, gable walls of upper floor bedrooms strapped and replastered, a new drainage system with septic tank was constructed, at a cost of £118 14s. 3d.

(251) Parkhall, Uddington, Douglas—1 three-apartment house. An additional bedroom was erected at rear and existing house altered to provide scullery, larder, w.c. and coalcellar, a new drainage system with septic tank was constructed, at a cost of £171 13s. 9d.

(252) Kilpotlees, Douglas—1 four-apartment house. Ceiling height was raised, store converted into kitchen and bathroom, an annexe was erected, comprising scullery with washboiler, tub and sink combination and larder, existing kitchen converted into 2 bedrooms and a new drainage system with septic tank constructed, at a cost of £282 7s. 0d.

(253) Parkhead, Law, Carlisle—1 four-apartment house. Ground floor room was converted into bathroom and store and a new drainage system with septic tank constructed, at a cost of £90 14s. 4d.

(254) Littlegill, Abington—1 two-apartment house An annexe was erected at gable, comprising scullery with washboiler, tub and sink combination and bathroom, out building was converted into larder, water supply led on, new system of drains with septic tank constructed, at a cost of £164 6s. 11d.

(258) Newmains, Douglas—1 two-apartment house, 2 three-apartment houses and 6 four-apartment houses.

House No. 1. Four-apartments—Part of kitchen formed into scullery with larder, water supply led on, new stair formed to attic floor where a new bedroom and w.c. were provided.

House No. 2. Four-apartments—An annexe was built at rear comprising scullery and w.c., water supply led on, bed recesses removed, larder and new stair to attic floor provided.

House No. 3. Four-apartments—Part of ground floor was converted into scullery, with larder, water supply led on, w.c. and new stair to attic floor provided.

House No. 4. Three-apartments—Water supply led on, larder and porch built at back door, w.c. provided on upper floor, new wood floors laid in attic bedrooms.

House No. 5. Four-apartments — Part of ground floor was converted into scullery with larder, water supply led on, w.c. and new stair to attic floor provided.

House No. 6. Four-apartments—An annexe was built at rear, comprising scullery and w.c., water supply led on, bed recesses removed, larder and new stair to attic floor provided.

House No. 7. Two-apartments—An annexe was built at front door, comprising scullery, larder and w.c., water supply led on, built in beds removed, new double light windows formed in each apartment.

House No. 8. Three-apartments.—Lighting of all apartments was improved, an annexe was built at rear, comprising scullery with larder and w.c., water supply led on.

House No. 9. Four-apartments—Existing pantry was fitted with sink and water supply led on, larder provided, stair to attic floor altered and w.c. constructed.

New drainage systems with septic tanks were also provided in connection with above improvements.

Total cost of improvements £1,084 2s. 5d.

(259) Rowhead Cottage, Biggar—Four-apartments. An annexe was erected at rear comprising scullery with washboiler, tub and sink combination, bathroom and pantry, water supply led on and new drainage system with septic tank constructed, at a cost of £298 4s. 9d.

(264) Hill Cottage, Craignethan, Crossford—1 three-apartment house. An annexe was erected at front, comprising bedroom, scullery with washboiler, tub and sink combination, larder and w.c., water supply led on, new floors laid, double light window formed in living room and new drainage system with septic tank constructed, at a cost of £254 2s. 0d.

(266) Woodlea Cottage, Coalburn—1 three-apartment house. Bedroom annexe was rebuilt and washhouse provided with washboiler and tub and sink combination, w.c. compartment enlarged to accommodate bath, and scullery improved, at a cost of £186 0s. 0d.

(267) Cardowan Farm, Steps—1 three-apartment house. Barn was converted into room, new wood floors laid, lighting of apartments improved, ceiling height raised, walls treated for dampness, roof overhauled, annexe erected at gable, comprising scullery with washboiler, tub and sink combination, bathroom and coalcellar, a larder was provided and new drainage system with septic tank constructed, at a cost of £345 7s. 0d.

(273) Corneygroats Farm, Strathaven—1 three-apartment house. Existing barn and store were converted into three-apartment house and addition made at gable to provide scullery with larder and bathroom, roof overhauled, ceiling height raised, walls treated for dampness and new drainage system constructed, at a cost of £321 12s. 2d.

(275) Clyde Neuk, Uddingston—2 four-apartment houses.

House No. 1. An annexe was built at front door comprising porch and bathroom, scullery with larder was erected at rear and lighting of attic floor improved.

House No. 2. Bathroom was constructed in annexe at front door, scullery with larder built at rear and lighting of attic floor improved.

An existing washhouse was modernised and a new drainage system with septic tank constructed in connection with above improvements.

Total cost of improvements £405 19s. 7d.

(281) Briarbank, Blackwood—1 three-apartment house. Existing scullery was repaired and converted into bathroom, annexe erected at rear comprising bedroom and scullery with larder, ground to rear excavated, retaining wall built and new drainage system constructed, at a cost of £222 14s. 0d.

(287) 41/43 Main Street, Forth—1 three-apartment house and 1 two-apartment house.

Three-apartment house—An annexe was built at rear, comprising scullery with washboiler, tub and sink combination, bathroom and larder, lighting of each apartment was improved and walls treated for dampness.

Two-apartment house—An annexe was erected at rear, comprising scullery with washboiler, tub and sink combination, bathroom and larder, lighting of each apartment was improved and walls treated for dampness.

A new drainage system with septic tank was constructed. Total cost of improvements £500 0s. 0d.

(294) East Lodge, Murdostoun, Newmains—1 three-apartment house. An annexe was erected adjacent to scullery, comprising porch and bathroom with w.c., larder provided, new wood floor laid in living room, walls treated for dampness, roof reslated, ground to rear excavated and new drainage system with septic tank constructed, at a cost of £249 17s. 0d.

(295) Cambuswallace, Biggar—1 three-apartment house. An annexe was erected at rear, comprising scullery, bathroom, larder and coals, walls of kitchen treated for dampness, new wood floors laid in entrance vestibule and small bedroom, new drainage system with septic tank constructed, at a cost of £217 14s. 9d.

(296) Trolloss Cottage, Elvanfoot—1 two-apartment house. Store was converted into scullery with washboiler, tub and sink combination and larder, existing pantry converted into bathroom, coal house

erected, double light window provided in kitchen and new drainage system with septic tank constructed, at a cost of £177 17s. 2d.

(301) Hillview, Brocketsbrae, Lesmahagow—1 four-apartment house. Bedroom converted into bathroom, sink provided in kitchenette, larder provided, water supply led on, walls treated for dampness and new drainage system with septic tank constructed, at a cost of £172 6s. 0d.

(302) Belstane, Carluke—1 three-apartment house. A stone-built barn was converted into 2 bedrooms, scullery with washboiler, tub and sink combination, bathroom, pantry and coals, and addition was built to provide living room, walls treated for dampness, water supply led on and drainage system with septic tank constructed, at a cost of £379 8s. 5d.

(303) Greendykeside Farm, Longriggend—1 five-apartment house. An annexe was erected at side door to provide bathroom, tub and sink combination installed in scullery, water supply led on and new drainage system with septic tank constructed, at a cost of £192 5s. 0d.

TABLE I.—NUMBER OF SETS OF PLANS LODGED DURING THE YEAR 1936, IN ACCORDANCE WITH BY-LAWS 41 AND 51, CLASSIFIED ACCORDING TO THE NATURE OF THE BUILDINGS SET FORTH IN PLANS.

PARISH.	Plans lodged for New Buildings under By-Law 41.				Plans lodged for alterations in mode of occupancy of Existing Buildings under By-Law 51.			
	Houses and Shops.	Work-shops.	Public Buildings.	Others.	Houses and Shops.	Work-shops.	Public Buildings.	Others.
Avondale, - -	4	—	—	—	3	—	—	—
Biggar, - - -	3	—	—	—	—	—	—	—
Blantyre, - -	2	—	—	—	4	—	—	—
Bothwell, - -	27	2	1	6	4	3	3	—
Cadder, - - -	27	1	1	3	3	3	—	1
Cambuslang, -	13	3	—	4	2	2	1	—
Cambusnethan, -	8	—	1	2	3	1	1	—
Carluke, - - -	—	1	2	—	3	—	—	1
Carmichael, - -	—	—	—	—	—	1	—	—
Carmunnock, - -	5	—	—	—	1	—	—	—
Carnwath, - - -	3	1	1	—	—	—	—	1
Carstairs, - - -	2	—	—	—	1	—	—	—
Coulter, - - -	—	—	—	—	1	—	—	—
Covington and Thankerton, -	—	—	—	1	—	—	—	—
Crawford, - - -	—	—	—	—	1	—	—	—
Crawfordjohn, -	1	—	—	—	1	—	—	—
Dalserf, - - -	4	1	—	2	2	3	1	1
Dalziel, - - -	2	—	—	1	—	—	—	—
Dolphinton, - -	—	—	—	—	—	—	—	—
Douglas, - - -	2	—	—	—	1	—	—	—
Dunsyre, - - -	—	—	—	—	—	—	—	—
East Kilbride, -	9	1	—	—	4	—	—	—
Glasford, - - -	1	—	—	—	—	—	—	—
Glasgow, - - -	8	1	—	—	1	—	—	—
Hamilton, - - -	2	—	—	1	—	—	—	—
Lamington and Wandel, - -	—	—	—	—	—	—	—	—
Lanark, - - -	12	—	—	—	3	—	—	—
Libberton, - - -	—	—	—	—	—	—	—	—
Lesmahagow, - -	2	1	3	—	2	—	4	—
New Monkland, -	13	—	1	—	3	1	—	1
Old Monkland, -	36	1	3	—	3	—	3	—
Pettinain, - - -	—	—	—	—	—	—	—	—
Rutherglen, - -	14	1	—	—	2	1	—	—
Shotts, - - -	9	1	1	1	1	—	—	1
Stonehouse, - -	3	—	1	2	1	—	—	—
Symington, - - -	—	—	—	—	2	—	—	—
Walston, - - -	—	—	—	—	—	—	—	—
Wiston and Roberton, -	—	—	—	—	—	—	—	—
TOTAL, - - -	212	15	15	23	52	15	13	7

* Includes 1 Church, 2 Church Halls, 1 Gospel Hall, 1 Mission Hall, 9 Cinemas, 1 Health Institute.

† Includes 1 Tea Room, 2 Scout Halls, 1 Male Staff Hostel, 1 Nurses' Home, 1 Football Pavilion, 2 Social Clubs, 1 Recreation Block, 1 Pipe Band Hall, 1 Time Office, 1 Drawing Office, 2 Offices, 1 Sports Pavilion, 1 Tennis Pavilion, 1 Lock-up, 1 Canteen, 1 Mess Room, 1 Grain Silo, 3 Community Centres.

‡ In this column are included plans for additions to Dwelling-houses. In this way 47 apartments were added to 36 houses.

§ Includes additions and alterations to :—1 Girls' Unemployment Centre, 5 Miners' Welfare Institutes, 2 Churches, 1 Church Hall, 3 Schools, 1 Hospital.

|| Includes alterations to 2 Hotels, 1 Sports Pavilion, 1 Conservatory, 2 Offices, 1 Billiard Hall.

TABLE II.—SHOWING NUMBER OF HOUSES AND SHOPS SET FORTH IN PLANS SUBMITTED UNDER BY-LAWS REGULATING THE BUILDING OR RE-BUILDING OF HOUSES OR BUILDINGS DURING 1936.

PARISH.	NEW BUILDINGS OF						TOTAL.
	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments.	Five Apartments and upwards.	Shops.	
Avondale, - -	—	—	1	—	2	1	4
Biggar, - -	—	—	1	3	—	—	4
Blantyre, - -	—	—	234	126	84	—	444
Bothwell, - -	—	—	388	217	66	5	676
Cadder, - -	—	—	171	140	29	8	348
Cambuslang, - -	—	—	93	78	41	1	213
Cambusnethan, - -	—	—	24	2	1	—	27
Carluke, - -	—	—	2	—	—	—	2
Carmichael, - -	—	—	—	—	—	—	—
Carmunnock, - -	—	—	—	132	112	—	244
Carnwath, - -	—	—	33	20	12	—	65
Carstairs, - -	—	—	13	8	4	—	25
Coulter, - -	—	—	—	—	—	—	—
Covington and Thankerton, - -	—	—	—	—	—	—	—
Crawford, - -	—	—	—	—	—	—	—
Crawfordjohn, - -	—	—	—	—	—	1	1
Dalserf, - -	—	—	61	12	4	1	78
Dalziel, - -	—	—	1	1	—	—	2
Dolphinton, - -	—	—	—	—	—	—	—
Douglas, - -	—	—	12	4	1	1	18
Dunsyre, - -	—	—	—	—	—	—	—
East Kilbride, - -	—	—	5	1	2	1	9
Glasford, - -	—	—	—	1	—	—	1
Glasgow, - -	—	—	—	29	—	—	29
Hamilton, - -	—	—	—	—	1	1	2
Lamington and Wandel, - -	—	—	—	—	—	—	—
Lanark, - -	—	—	20	15	11	—	46
Libberton, - -	—	—	—	—	—	—	—
Lesmahagow, - -	—	—	3	—	—	—	3
New Monkland, - -	—	—	219	195	41	1	456
Old Monkland, - -	—	—	254	74	30	10	368
Pettinain, - -	—	—	—	—	—	—	—
Rutherglen, - -	—	—	7	13	4	—	24
Shotts, - -	—	—	62	40	16	2	120
Stonehouse, - -	—	—	2	13	—	—	15
Symington, - -	—	—	—	—	—	—	—
Walston, - -	—	—	—	—	—	—	—
Wiston and Robertson, - -	—	—	—	—	—	—	—
TOTAL, - -	—	—	1,606	1,124	461	33	3,224

MEAT INSPECTION—SLAUGHTERHOUSES, Etc.

ALEXANDER CAMERON, M.R.San.I.

As General Superintendent of Abattoirs and County Meat Inspector, I have to submit the following report for the year 1936 :—

It will be observed from Table I that the total number of animals slaughtered at the various abattoirs was 29,607, out of which 8,942 animals were found to contain disease in some form.

Of the 8,942, there were 1,676 carcasses totally or partially condemned, and 7,266 carcasses found with local conditions in which organs only were condemned, these combined being 30·2 per cent. of the total animals slaughtered, as compared with 32·68 per cent. the previous year.

Of the 11,570 cattle slaughtered at the various abattoirs, 297 were sent in by the County Veterinary Inspector under the Tuberculosis Order, and of these 229 were totally or partially condemned, and the remainder passed, being cases in which organs only were condemned.

Tables II and III show in detail, for each slaughterhouse, the class of animal slaughtered and the extent to which disease was prevalent, both in abattoirs and private slaughterhouses throughout the district.

Table IV shows the number of organs and the diseases for which they were condemned in those cases where organs only were condemned in abattoirs and private slaughterhouses.

TABLE I.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.											
		Tuberculosis.						Other Diseases.					
Class.	Num-ber.	Carcases.				Organs only.		Carcases.				Organs Only.	
		Wholly.		Partially.				Wholly.		Partially.			
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
rs, ...	6,980	430	6·16	986	14·13	3,258	46·67	88	1·26	58	·83	2,248	32·21
fers, ...	2,085	11	·53	22	1·05	256	12·27	6	·29	—	—	157	7·53
ls, ...	142	1	·70	4	5·68	9	6·34	—	—	3	2·13	6	4·26
locks, ...	2,363	2	·08	20	·80	55	2·33	2	·08	1	·04	109	4·61
res, ...	3,701	17	·46	—	—	1	·03	13	·35	—	—	5	·15
ep, ...	9,414	—	—	—	—	1	·01	4	·04	2	·02	998	10·60
ne, ...	4,919	3	·06	—	—	133	2·70	1	·02	2	·04	30	·61
ts, ...	3	—	—	—	—	—	—	—	—	—	—	—	—
total, ...	29,607	464	1·56	1,032	3·48	3,713	12·54	114	·38	66	·22	3,553	12·00

Bellshill.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	2,959	235	424	1,709	43	36	1,724
Heifers, ...	444	—	4	68	3	2	60
Bulls, ...	24	—	1	2	—	1	3
Bullocks, ...	254	1	4	13	3	1	21
Calves, ...	116	2	—	—	3	—	1
Sheep, ...	2,363	—	—	1	2	1	357
Swine, ...	173	1	—	12	—	1	9
Goats, ...	3	—	—	—	—	—	—
Total, ...	6,336	239	433	1,805	54	42	2,175

Bellshill.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers.	Bulls.	Bullocks.	Calves.	Sheep.	Swine.	Total.
Actinomycosis, ...	1	—	—	—	—	—	—	1
Arthritis, ...	1	—	—	—	—	—	—	1
*Dead in Byre, ...	1	—	—	—	—	—	—	1
Dropsy, ...	12	1	—	1	—	—	—	14
Emaciation, ...	—	—	—	—	—	2	—	2
Gastro-Enteritis, ...	1	—	—	—	1	—	—	2
Injuries, ...	31	1	1	2	1	—	1	37
Lymphadenitis, ...	1	—	—	—	—	—	—	1
Neoplasm, ...	—	1	—	—	—	—	—	1
Nephritis, ...	1	—	—	—	—	—	—	1
Osteomyelitis, ...	—	1	—	—	—	—	—	1
Pleurisy, ...	7	—	—	—	—	—	—	7
Pneumonia, ...	—	1	—	—	—	—	—	1
Pyaemia, ...	3	—	—	—	1	1	—	5
Septicaemia, ...	1	—	—	—	—	—	—	1
Septic Mammitis, ...	2	—	—	—	—	—	—	2
Septic Metritis, ...	6	—	—	—	—	—	—	6
Septic Pericarditis, ...	3	—	—	—	—	—	—	3
Septic Peritonitis, ...	7	—	—	—	—	—	—	7
Traumatic Abscess, ...	1	—	—	1	—	—	—	2
	79	5	1	4	3	3	1	96

*After examination by V.S., this carcase was removed direct to knackery.

Blantyre.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	1,604	58	274	442	6	2	305
Heifers, ...	455	2	8	81	2	—	55
Bulls, ...	23	—	3	1	1	—	2
Bullocks,	412	—	11	11	1	—	56
Calves, ...	707	2	—	—	1	—	3
Sheep, ...	2,859	—	—	—	2	—	594
Swine, ...	561	—	—	28	2	—	7
Total, ...	6,621	62	296	563	15	2	1,022

Blantyre.—TABLE III.—OTHER DISEASES FOR WHICH ANIMALS WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers.	Bulls.	Bullocks.	Calves.	Sheep.	Swine.	Total.
Emaciation, ...	—	—	—	—	—	—	1	1
Injury, ...	2	—	1	—	—	—	1	4
Nephritis, ...	1	—	—	—	—	—	—	1
Pleurisy, ...	—	—	—	1	—	—	—	1
Poorness of Condition,	—	2	—	—	—	—	—	2
Septic Metritis, ...	—	—	—	—	—	1	—	1
Septic Pericarditis, ...	3	—	—	—	—	1	—	4
Septic Peritonitis, ...	2	—	—	—	—	—	—	2
Umbilical Pyaemia,	—	—	—	—	1	—	—	1
	8	2	1	1	1	2	2	17

Carlisle.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	153	49	3	26	1	—	—
Heifers, ...	213	1	—	—	—	—	—
Bulls, ...	25	—	—	—	—	—	—
Bullocks,	382	1	1	—	—	—	1
Calves, ...	2,474	10	—	—	1	—	—
Sheep, ...	791	—	—	—	—	—	—
Swine, ...	2,865	1	—	—	—	—	—
Total, ...	6,903	62	4	26	2	—	1

One cow was totally condemned on account of Johne's Disease, and one calf totally condemned on account of pneumonia.

Douglas.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	—	—	—	—	—	—	—
Heifers, ...	—	—	—	—	—	—	—
Bulls, ...	—	—	—	—	—	—	—
Bullocks,	98	—	—	—	—	—	—
Calves, ...	—	—	—	—	—	—	—
Sheep, ...	211	—	—	—	—	—	—
Swine, ...	46	—	—	—	—	—	—
Total, ...	355	—	—	—	—	—	—

Forth.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	—	—	—	—	—	—	—
Heifers, ...	115	—	2	14	—	—	—
Bulls, ...	—	—	—	—	—	—	—
Bullocks, ...	148	—	3	9	—	—	1
Calves, ...	—	—	—	—	—	—	—
Sheep, ...	202	—	—	—	—	—	—
Swine, ...	97	—	—	—	—	—	—
Total, ...	562	—	5	23	—	—	1

Larkhall.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	1,180	42	205	694	10	6	50
Heifers, ...	184	2	2	14	1	—	12
Bulls, ...	8	—	—	3	—	—	—
Bullocks, ...	155	2	—	4	—	—	11
Calves, ...	81	—	—	—	1	—	1
Sheep, ...	368	—	—	—	—	1	20
Swine, ...	150	—	—	6	—	—	12
Total, ...	2,126	46	207	721	12	7	106

Larkhall.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers.	Calves.	Sheep.	Total.
Emaciation, ...	3	—	—	—	3
Injury, ...	2	—	—	—	2
Johne's Disease, ...	1	—	—	—	1
Pyæmia, ...	1	—	—	—	1
Septicæmia, ...	1	—	—	—	1
Septic Mammitis, ...	—	—	—	1	1
Septic Metritis, ...	5	—	—	—	5
Septic Pericarditis, ...	3	—	—	—	3
Septic Pneumonia, ...	—	1	—	—	1
Umbilical Pyæmia, ...	—	—	1	—	1
	16	1	1	1	19

Lesmahagow.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcasses condemned wholly or partially. Carcasses in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcasses.		Organs only.	Carcasses.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	183	—	1	27	2	—	9
Heifers, ...	40	1	1	10	—	—	2
Bulls, ...	25	—	—	—	—	—	—
Bullocks, ...	369	—	—	11	—	—	5
Calves, ...	—	—	—	—	—	—	—
Sheep, ...	591	—	—	—	—	—	1
Swine, ...	192	—	—	2	—	—	2
Total, ...	1,400	1	2	50	2	—	19

One cow was totally condemned on account of septicæmia, and another on account of septic metritis.

Strathaven.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CASES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	336	26	25	121	7	5	44
Heifers, ...	485	4	3	61	1	—	10
Bulls, ...	27	1	—	1	—	1	1
Bullocks,	147	—	—	—	—	—	1
Calves, ...	257	1	—	—	5	—	—
Sheep, ...	1,364	—	—	—	1	—	24
Swine, ...	730	1	—	85	—	—	—
Total, ...	3,346	33	28	268	14	6	80

Strathaven.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers.	Bulls.	Calves.	Sheep.	Total.
Emaciation, ...	1	1	—	—	1	3
Injury, ...	5	—	1	—	—	6
Pyæmia, ...	—	—	—	5	—	5
Septic Metritis, ...	6	—	—	—	—	6
	12	1	1	5	1	20

Shotts.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	475	17	53	166	—	—	50
Heifers, ...	15	1	2	—	—	—	1
Bulls, ...	1	—	—	1	—	—	—
Bullocks,	349	—	1	6	—	—	11
Calves, ...	36	—	—	—	—	—	—
Sheep, ...	238	—	—	—	—	—	—
Swine, ...	35	—	—	—	—	—	—
Total, ...	1,149	18	56	173	—	—	62

Stonehouse.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	90	2	1	73	—	—	66
Heifers, ...	134	—	—	8	2	—	17
Bulls, ...	9	—	—	1	—	—	—
Bullocks,	49	—	—	2	—	—	2
Calves, ...	30	—	—	—	—	—	—
Sheep, ...	427	—	—	—	—	—	2
Swine, ...	70	—	—	—	—	—	—
Total, ...	809	2	1	84	2	—	87

One heifer was totally condemned on account of gangrene, and another on account of jaundice.

Private Slaughterhouses.

TABLE II.

District.	Animals Slaughtered.			
	Cattle.	Calves.	Sheep.	Swine.
Greengairs,	109	2	150	36
Longriggend,	115	—	118	42
Chapelhall,	86	7	92	44
Glengowan,	105	—	92	1
Newarthill,	34	—	—	3
Cleland,	98	—	25	—
Harthill,	263	4	371	8
Total,	810	13	848	134

TABLE III.—ANIMALS CONDEMNED—WHOLLY OR PARTIALLY.

Animals Slaughtered.	Tuberculosis.			Other Diseases.		
	Wholly.	Partially.	Organs.	Wholly.	Partially.	Organs.
Cows, ...	3	10	81	—	—	13
Heifers, ...	—	10	19	—	—	5
Bulls, ...	—	1	4	—	—	6
Bullocks, ...	—	1	3	—	—	9
Calves, ...	—	—	—	2	—	—
Sheep, ...	—	—	—	—	—	15
Swine, ...	—	—	1	—	—	—
Total, ...	3	22	108	2	—	48

Two calves were totally condemned on account of septicaemia.

TABLE IV.—RETURN OF DISEASES FOR WHICH ORGANS WERE CONDEMNED.

DISEASES.																										
Organs Condemned.	Tuberculosis.	Abscess.	Actinomycosis.	Pericarditis.	Pleurisy.	Pneumonia.	Cirrhosis.	Distomatosis.	Mammitis.	Neoplasms.	Bacterial Necrosis.	Angiomatosis.	Carcinoma.	Cysts.	Fatty Degeneration.	Hæmorrhage.	John's Disease.	Melanosis.	Nephritis.	Tumour.	Cysts.					Total.
																					Echino- coccos.	Cœnurus.	Cerebralis.	Cysticercus.	Tenaculicollis.	
Heads, .	1,366	4	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,400
Tongues, .	100	1	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	126
Lungs, .	3,803	12	—	—	12	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19	—	—	—	3,869
Hearts, .	63	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	64
Livers, .	679	381	—	—	—	—	455	2,302	—	1	26	104	—	—	—	—	—	—	1	—	—	18	—	111	—	4,078
Stomachs, .	124	996	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35	—	—	—	—	—	—	—	1,156
Bowels, .	1,344	36	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	79	—	—	—	—	—	—	—	1,460
Kidneys, .	23	2	—	—	—	—	—	—	—	—	—	—	—	—	7	2	—	—	—	21	—	—	—	—	—	55
Udders, .	131	5	2	—	—	—	—	—	866	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1,005
Uteri, .	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	19
Feet, .	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Prem. Calves, .	96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	96
Total, .	7,747	1,437	58	1	12	23	455	2,303	866	1	26	104	1	7	2	1	114	1	21	1	37	—	—	—	—	13,329

Note.—This Table does not include the Viscera of Carcases wholly or partially condemned.

Burghs of Lanark and Biggar.

Below are tables showing in detail the class and number of animals slaughtered and the amount of disease detected at the above places. It has been arranged to carry on the work of meat inspection at these places in conjunction with the County staff by the appointment of the officials who carried out the work for these burghs previous to the

County taking over the responsibility. It might be said that, meantime, nothing has been changed there, except that the returns are directed to the County Public Health Department, Hamilton. They are given here, and show in detail the exact position at these places. The returns from Biggar, however, are not satisfactory. This matter is having the attention of the Medical Officer.

Generally speaking, my opinion is that the arrangements under the Local Government Act, so far as slaughterhouses are concerned in these small burghs, where administration is in the hands of the burgh authority, and meat inspection in the hands of the county authority, make it difficult to organise and carry out the work satisfactorily.

LANARK—

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, ...	1	—	—	—	1	—	—
Heifers, ...	32	—	—	—	—	—	1
Bulls, ...	—	—	—	—	—	—	—
Bullocks,	1,173	1	—	5	1	—	24
Calves, ...	33	—	—	—	1	—	—
Sheep, ...	2,249	—	—	—	2	—	8
Swine, ...	455	—	—	—	—	—	1
Total, ...	3,943	1	1	5	5	—	34

ORGANS CONDEMNED.	DISEASES.										
	Tuberculosis.	Abscess.	Pleurisy.	Pneumonia.	Cirrhosis.	Distomatosis.	Bacterial Necrosis.	Nephritis.	Hepatitis.	Cysts.	Total.
										Cysticercus Tenulicollis.	
Heads, ...	2	—	—	—	—	—	—	—	—	—	2
Lungs, ...	8	—	1	2	—	—	—	—	—	1	12
Hearts, ...	—	—	—	—	—	—	—	—	—	—	—
Livers, ...	—	8	—	—	17	2	1	—	2	12	42
Stomachs,	—	—	—	—	—	—	—	—	—	—	—
Bowels, ...	—	—	—	—	—	—	—	—	—	—	—
Kidneys, ...	—	1	—	—	—	—	—	2	—	—	3
Feet, ...	—	—	—	—	—	—	—	—	—	—	—
	10	9	1	2	17	2	1	2	2	13	59

BIGGAR—

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cattle, ...	565	—	—	—	—	—	—
Calves, ...	114	—	—	—	—	—	—
Sheep, ...	48,305	—	—	—	—	—	—
Swine, ...	384	—	—	—	—	—	—
Total, ...	49,368	—	—	—	—	—	—

GENERAL.

DISEASED UDDERS.—It will be observed that the total number of cows slaughtered was 6,980. Of these, 430 were totally condemned on account of generalised tuberculosis, 95 of which showed evidence of tubercle in the udder. There were 986 cows partially condemned on account of various forms of localised tuberculosis, and of these, 58 had udders affected. In addition to the foregoing, there were 3,258 cows in which the disease was so localised that organs only were condemned, and in 131 of these the udder was affected. Of the total cows slaughtered, 866 cases of indurated udder or other forms of chronic mammitis were found. Many of these cases might be called doubtful tubercle in the absence of microscopic examination.

Of the 2,085 heifers slaughtered, 11 were totally condemned and 22 partially condemned. In 2 of the cases totally condemned, the disease was present in the udder. Congenital cases of tuberculosis are reported to the Veterinary Department, who trace the seller through the market or other information supplied, and thereby find the mother of the calf.

During the year 16 cases were reported, and, as a result of investigations by the Veterinary Department, the mother of the calf was traced in practically all instances. Seven of these were dealt with under the Tuberculosis Order, while arrangements were made to have the others kept under observation. Of the former, six were found to be in an advanced state of tuberculosis and one not advanced.

In dealing with emergency cases, all animals are prohibited from entering public abattoirs or private slaughterhouses unless accompanied by a veterinary certificate certifying that the animal is not suffering from a contagious disease, as scheduled under the Contagious Diseases (Animals) Act, except in cases of accident or consequent upon calving.

Where slaughtering takes place outside the slaughterhouses (farms, etc.), the requirements of the Meat Regulations (Scotland), 1932, are complied with.

The number of diseased animals found at the different abattoirs varied as usual according to the class or quality of animals slaughtered, *e.g.*, at Bellshill, Blantyre, and to a slight extent at Larkhall, there is a turnover of plain cattle for boning purposes. Disease fluctuates according to the quality of these animals. Quality generally varies in accordance with the purchasing power of the people, and the market price.

The whole system of meat inspection is linked up with the County Bacteriological Laboratory, and when necessary histological and bacteriological work is carried out by the Bacteriologist.

BUILDINGS.—The Public Abattoir at Baillieston, which was closed last year, has been let as a store. An effort has been made to dispose of the buildings, but at the end of the year nothing definite had been accomplished.

Throughout the County there are still ten Public Slaughterhouses in constant use, and these are sufficient to meet the requirements of their respective districts. Repairs and painter work, etc., have received the attention of the appropriate Committee, and all requirements were attended to by the Works Department. The properties and equipment are consequently now in good order, but at a very considerable cost. When one considers the period or life of these slaughterhouses, it is reasonable to expect increased expenditure for a time in repairs, so as to keep the premises in a proper state of repair. It is of interest to note that the repayment of capital expenditure on all the slaughterhouses has now been completed. Although the cost of repairs is considerable, it must be admitted that the valuation of the property is considerable.

PRIVATE SLAUGHTERHOUSES.—Twelve licences were granted for slaughter of cattle, sheep, and pigs, and three licences for the slaughter

of sheep only, two of these being for the English markets and one for a private institution. The private slaughterhouses have been visited regularly, and the requirements of the new Meat Regulations complied with.

Vans from adjacent counties and burghs continue to hawk the districts, and these have been inspected regularly with satisfactory results. The regular inspections, both with regard to the local butchers and hawking vans inaugurated under the new Meat Regulations, have positively improved the quality of the meat in these districts. Neighbouring counties, who previously gave little attention to private slaughterhouses, are now evidently giving serious attention to the question of detailed meat inspection.

These inspections were carried out in conjunction with the usual supervision of the public abattoirs and private slaughterhouses, including the inspection of shops, cold stores, etc. The butchers owning the private slaughterhouses in the former Middle Ward district still continue to contribute towards the expense of making the necessary inspections at their premises, and the amount paid to the Local Authority this year was £95 14s. 9d., as compared with £94 18s. 6d. for the previous year. This sum was more than sufficient to cover the expense of inspection in this branch of the work.

There is no contribution from the former Upper Ward area. The private slaughterhouses there are not tied to certain days for slaughter, but the onus is put upon them to report to the Meat Inspector when slaughtering takes place, and, in addition, weekly visits are made. Adjustments in the meat inspection arrangements in the Upper Ward area are having the attention of C.M.I. and M.O.H.

A necessary standard of protection, however, with regard to unsound meat in the private slaughterhouse areas has been maintained, and consequently a complete system of inspection exists throughout the whole County.

By-laws for public and private abattoirs throughout the County would be helpful if issued, but no by-laws suitable to present circumstances have yet been adopted, although they have been prepared and under consideration many years ago.

The visits to private slaughterhouses and other places, outside abattoirs, were as follows :—

Private slaughterhouses,	...	...	...	...	1,197
Butchers' shops, vans, stores, etc.,	...	...	...	...	4,133

In addition to the above, there are the observations by the Superintendent in each district, which in the past have not been recorded as visits.

PUBLIC HEALTH (MEAT INSPECTION) REGULATIONS (SCOTLAND), 1932, ARTICLE 15.—Four permits for meat stores were dealt with during the year. There are now twelve such stores in the County, and these have been periodically inspected, with satisfactory results.

COLD STORES.—In the previous Middle Ward area there are 99 cold stores, the cooling arrangements of which are—ice, 86 ; mechanical, 13. In other parts of the County the registration has not yet been arranged, but the necessary attention has been given to all under Section 43 of the Public Health (Scotland) Act, 1897, and the new Meat Regulations, with satisfactory results.

During the year a large number of inspections were made to cold stores, and, generally speaking, their contents were found sound and the apartments kept in a satisfactory condition.

UN SOUND MEAT.—At abattoirs and private slaughterhouses all condemnations have been carried out with owner's consent. The total weight of meat condemned outside the abattoirs (including private slaughterhouses, fleshers' shops, and at farms where special permits for slaughtering were authorised) amounted to 3,532 lbs.

All condemned meat and residue from the offal business—which is in the hands of the Local Authority—throughout the district, continues to be treated in the digester at Bellshill, producing two products, viz., technical tallow and residue for manure. A quantity of the condemned meat and organs is sold to a knackery in the district, as also is the residue from the Bellshill digester.

Periodic visits were made to the County Hospitals and Special Schools, advice given regarding the butchermeat supplies, and reports made on inspections. Generally speaking, supplies were found satisfactory, so far as the soundness of the meat was concerned, but the quality was in keeping with the price paid.

Humane Slaughtering of Animals.

The various methods of humane slaughtering have received careful consideration from time to time, not only by the officials, but also by the County Council. The mechanical instruments have been adopted in all the slaughterhouses in the County since the beginning of the Slaughter of Animals Act. Up till the present, the Schermer bolt instrument has been in use for larger animals, and the Cash captive bolt pistol for smaller animals, particularly pigs and sheep.

The electric stunner has been in use for some time at Carluke Abattoir, and for the slaughter of pigs, it has proved to be superior in efficiency to any other method yet experienced. It gives perfect satisfaction to the ham curer, the pork being perfectly bled and free from shot marks (capillary extravasation), as found in cases where the mechanical bolt pistol is used. It should be noted that the only Abattoir supplied with electricity in the County is Carluke. The question of extending the use of electricity at the other Abattoirs is presently under the consideration of the Slaughterhouses Committee, and I am hopeful that the County Council will approve, as there is economy as well as efficiency in introducing electric stunning for both pigs and sheep.

FOOD AND DRUGS.

Senior Inspector and Sampling Officer—CHAS. MACARA.

The work under the Food and Drugs (Adulteration) Act and relative Orders was carried out by three Inspectors. The following table shows the yearly average number of inspections; administrative samples procured and analysed, with the percentage found deficient; and the samples taken for special purposes for the seven quinquennial periods from 1900-1934; and the annual figures for the years 1935 and 1936 :—

Administrative Samples.					
Years.	Inspections.	Procured.	Analysed.	Percentage Deficient.	Special Samples.
1900-04, ...	616	338	316	11·27	—
1905-09, ...	828	487	480	12·64	—
1910-14, ...	789	574	558	12·16	573
1915-19, ...	373	340	326	12·96	14
1920-24, ...	804	653	647	8·11	107
1925-29, ...	1,976	1,623	1,608	9·76	1,006
1930-34, ...	2,782	2,513	2,501	7·52	248
1935, ...	2,797	2,443	2,439	3·5	32
1936, ...	2,101	2,119	2,115	5·1	—

The following tabular statement shows the work carried out in the County Area and the Burghs of Biggar and Lanark, and the manner in which the samples were procured, etc. :—

District.	Inspections made.	Samples procured.*				Analysed.	
		Formal.	Informal.	Received Privately.	Total.	Public Analyst.	Chemical Laboratory.
County Area, ...	2,001	88	1,939	7	2,035	111	1,920
Burgh of Biggar,	29	1	23	—	24	1	23
Burgh of Lanark,	71	2	58	—	60	2	58
Total, ...	2,101	91	2,020	7	2,119	114	2,001

4 samples were not analysed.

The following table shows the nature and number of samples purchased and received, the number analysed, and the number found deficient :—

Article.	Procured.	Analysed.	Deficient or Adulterated.
Sweet Milk,	1,410	1,410	70
Skimmed Milk,	4	4	—
Condensed Milk,	4	3	—
Evaporated Milk,	1	1	—
Cream,	11	11	—
Butter,	20	20	—
Dripping,	2	—	—
Whisky,	29	29	—
Fruit Cordials,	3	3	—
Mince,	460	460	28
Sausage Meat,	73	73	3
Sausage,	65	65	7
Steak,	1	1	—
Chicken Roll,	1	1	—
Veal Loaf,	1	1	—
Ground Suet,	1	1	—
Vinegar,	1	1	—
Sugar,	3	3	—
Ground Coffee,	1	1	—
Rice,	1	1	—
Ground Rice,	1	1	—
Barley,	1	—	—
Bread,	8	8	—
White Pepper,	1	1	—
Apples,	3	3	—
Orange Peel,	1	1	—
Raisins,	1	1	—
<i>Carry forward,</i>	2,108	2,104	108

Article.	Procured.	Analysed.	Deficient or Adulterated.
<i>Brought forward,</i> ...	2,108	2,104	108
Honey, ...	1	1	—
Strawberry Jam, ...	1	1	—
Baking Powder, ...	1	1	—
Cream of Tartar, ...	2	2	—
Tartaric Acid, ...	1	1	—
Vanilla Essence, ...	4	4	—
Virol and Milk, ...	1	1	—
	2,119	2,115	108

Nineteen of the deficient samples were taken formally and eighty-nine informally. With regard to the formal non-genuine samples, informations were lodged with the County Clerk. The vendors from whom the informal samples were procured were kept under observation, and formal samples taken.

The following table shows the formal non-genuine samples dealt with during the year, and the action taken in each case :—

Registered Number.	Article.	Date Purchased.	Action Taken.
92	Sausages.	25th Nov., 1935.	Pled guilty at Hamilton Sheriff Court, 17th January, 1936. Fined 10s.
95	Mince.	3rd Dec., 1935.	Pled Guilty at Glasgow Sheriff Court, 22nd January, 1936. Fined £2.
5	Sweet Milk.	13th Jan., 1936.	Pled guilty at Airdrie Sheriff Court, 13th March, 1936. Fined £2.
6	Sweet Milk.	13th Jan., 1936.	Pled guilty at Airdrie Sheriff Court, 28th February, 1936. Fined £2.

Registered Number.	Article.	Date Purchased.	Action Taken.
38	Mince.	8th April, 1936.	Pled guilty at Airdrie Sheriff Court, 23rd May, 1936. Fined £2.
40	Mince.	17th April, 1936.	Pled guilty at Airdrie Sheriff Court, 2nd June, 1936. Fined £4.
41	Mince.	21st April, 1936.	Pled guilty at Hamilton Sheriff Court, 29th May, 1936. Fined £2.
44	Sweet Milk.	1st May, 1936.	Pled guilty at Airdrie Sheriff Court, 12th June, 1936. Fined £4.
50	Mince.	11th May, 1936.	Pled guilty at Lanark Sheriff Court, 23rd June, 1936. Fined £1 5s.
52	Mince.	12th May, 1936.	Pled guilty at Airdrie Sheriff Court, 23rd June, 1936. Fined £2.
70	Sweet Milk.	1st July, 1936.	Proceedings dropped owing to legal difficulty.
103	Mince.	9th Oct., 1936.	Pled guilty at Hamilton Sheriff Court, 17th November, 1936. Fined £1 3s. 9d.
—	Sweet Milk.	10th Oct., 1936.	Milk (Special Designation) Order Contravention. Written caution sent by County Clerk, 15th October, 1936.
106	Mince.	21st Oct., 1936.	Pled guilty at Lanark Sheriff Court, 9th December, 1936. Fined £3.
116	Sweet Milk.	2nd Nov., 1936.	Proceedings dropped owing to legal difficulty.
118 & 119	Sweet Milk.	3rd Nov., 1936.	Pled guilty at Lanark Sheriff Court, 18th December, 1936. Fined £5.
130, 131 & 132	Sweet Milk.	26th Nov., 1936.	Proceedings pending.
145	Sweet Milk.	22nd Dec., 1936.	Proceedings pending.
146	Sausage Meat.	23rd Dec., 1936.	Proceedings pending.

The following tables show the samples of sweet milk analysed during the year, classified according to the percentage of milk fat and of milk solids other than milk fat which they contained, and according to the nature of the business carried on by the vendors, viz., producer-wholesalers, producer-retailers, and retailers:—

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK FAT.
PRESUMPTIVE STANDARD=3 PER CENT.

Milk Fat Percentage.	NUMBER OF SAMPLES.			Total.
	Producer- Wholesalers.	Producer- Retailers.	Retailers.	
1.1	—	—	1	1
1.3	—	1	1	2
1.5	—	—	1	1
1.9	—	—	2	2
2.0	—	1	1	2
2.1	—	—	1	1
2.2	—	—	2	2
2.3	—	1	1	2
2.4	—	1	1	2
2.5	—	3	5	8
2.6	—	—	3	3
2.7	—	6	2	8
2.8	—	1	1	2
2.9	—	8	1	9
3.0	4	16	9	29
3.1	2	21	6	29
3.2	1	16	21	38
3.3	2	25	34	61
3.4	3	48	38	89
3.5	1	59	63	123
3.6	6	64	90	160
3.7	5	72	74	151
3.8	5	62	77	144
3.9	4	47	53	104
4.0	2	70	47	119
4.1	2	41	49	92
4.2	3	33	33	69
4.3	4	19	15	38
4.4	4	26	8	38
4.5	3	40	38	81
and over				
Total,	51	681	678	1,410

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK SOLIDS
OTHER THAN MILK FAT.

PRESUMPTIVE STANDARD=8.5 PER CENT.

Non-fatty Solids Percentage.	NUMBER OF SAMPLES.			
	Producer- Wholesalers.	Producer- Retailers.	Retailers.	Total.
4.5	—	—	1	1
7.4	—	1	—	1
7.5	2	1	—	3
7.6	1	—	—	1
7.7	1	1	—	2
7.8	—	1	—	1
8.1	2	1	—	3
8.2	2	1	—	3
8.3	—	3	1	4
8.4	2	5	5	12
8.5	3	38	33	74
8.6	6	57	75	138
8.7	8	125	101	234
8.8	9	129	156	294
8.9	10	128	143	281
9.0	4	115	110	229
9.1	—	46	39	85
9.2	1	23	11	35
9.3	—	4	3	7
9.4	—	2	—	2
9.5 and over	—	—	—	—
Total,	51	681	678	1,410

Sweet Milk.—1,410 formal and informal samples were procured. The procedure adopted is to procure informal samples for analysis in the Chemical Laboratory, and any samples found not genuine are followed up by taking formal samples from the vendors concerned. On formal samples being taken, it is the practice to procure informal samples immediately afterwards from the same vessel. These informal

samples are analysed in the Chemical Laboratory and the results of analyses known on the same day. When samples are deficient, this early information is valuable for the purpose of further investigation. If the vendor is a retailer, samples are taken in course of delivery of the milk to him, and, if the vendor is a producer-retailer, an "appeal to the cows" is made, with the consent of the producer, at the milkings immediately following.

Cream.—11 samples of cream were procured. Eight of these were tins of thick cream as sold by grocers, and 3 were double cream sold from bulk by a Dairy Co. The amount of fat in the tinned thick cream ranged from 20.6 per cent. to 28.5 per cent.; and in the double cream, from 49.2 per cent. to 51.5 per cent.

Skimmed Milk.—4 samples of skimmed milk were procured. The amount of skimmed milk on sale has been a decreasing quantity for the past year or two. During the past year the quantity has been very small indeed, and the 4 samples procured were obtained from large dairymen who buy in separated milk from the creamery and sell it as skimmed milk at 1d. per pint.

Butter.—20 samples were taken, analysed and all found to be genuine. At the routine inspection of shops, attention was given to the detection of the fraudulent practice of selling Margarine for Butter. Numerous samples were procured by means of agents, but in no case was the practice detected. The Merchandise Marks (Imported Goods) Order, 1932, was also kept in view, and, where butter was exposed for sale in bulk or in made-up packets without a label giving an indication of the country of origin, verbal cautions were given. A few verbal complaints were received during the year that a cheaper foreign butter was being sold as "Danish Butter." These complaints were always carefully investigated, but in no case was there proof that the complaints were well founded. The sale of another butter for "Danish" is a matter very difficult of proof on which to base legal proceedings, as the various kinds of butter on sale cannot be identified by Chemical Analysis.

Whisky.—29 samples were taken, 2 formal and 27 informal, and they were all certified genuine. In practice, the procedure is to take informal samples for analysis in the Chemical Laboratory, and follow up any found to be deficient in strength by taking formal samples.

MARGARINE CONTRAVENTIONS.

Numerous minor contraventions, such as the temporary omission to have labels on margarine exposed for sale, were detected, and the offenders cautioned.

MILK (SPECIAL DESIGNATIONS) ORDER (SCOTLAND), 1930-36.

525 inspections were made and 425 samples (including samples taken in connection with the granting of licences) of graded milk taken and submitted for bacteriological examination. In 390 cases a sample was also taken for chemical examination. Any slight contraventions of the Order of the nature of omissions to put the date of production on the cap, etc., were dealt with by cautionary letters being sent to the offenders.

The Milk (Special Designations) Order (Scotland), 1936, which supersedes the above Order came into operation on the 1st October, 1936. The designations have been changed by the new Order and are as follows:—(1) Certified (unchanged); (2) Tuberculin Tested (replacing Grade A (T.T.)); (3) Standard (replacing Grade A); and (4) Pasteurised (unchanged).

Among other new features embodied in the conditions governing the issue of licences, there are two which provide that (1) Certified; (2) Tuberculin Tested; and (3) Pasteurised Milk shall be cooled to a maximum temperature of 50° Fahrenheit; and that sterilisation by steam of bottles and other containers is compulsory. In September, inspections were made to all Certified and Grade A (T.T.) Milk producers' premises in the County—68 in all—with a view to ascertaining the temperature of the milk after being cooled at the farm, and whether they all had sterilisation equipment. The following is a synopsis of the information obtained at the inquiry:—

Licences.—68 Producers' Licences—17 Certified and 51 Grade A (T.T.).

Cooling of Milk.—6 Water and Ethyl Chloride.

1 Water and Refrigerator.

60 Water.

1 Without Cooler.

Temperature of Water.—Ranged from 53°F. to 62°F.—Average 57·9°F.

Temperature of Milk.—Ranged from 56°F. to 69·5°F.—Average 61°F.

Average difference in Temperature between
Water and Milk—3°F.

Steam.—46 Producers with Steam Equipment.

22 Producers without Steam Equipment.

PUBLIC HEALTH (CONDENSED MILK) AND (DRIED MILK)
REGULATIONS.

5 samples of condensed milk were taken. 4 were analysed and found to conform to the terms of the Regulations. The labelling requirements of the Regulations were observed in every case.

PUBLIC HEALTH (PRESERVATIVES, ETC., IN FOOD) REGULATIONS
(SCOTLAND), 1925.

All the articles which are affected by the above Regulations were analysed for the presence of preservative. In procuring samples of mince, sausages, sausage meat, etc., the procedure adopted is to procure informal samples for examination in the Chemical Laboratory, in the first instance, and follow up any non-genuine samples afterwards by the purchase of formal samples for analysis by the Public Analyst. As will be seen from the table of samples purchased and analysed, 28 samples of mince, 3 samples of sausage meat and 7 samples of sausage were found to be not genuine in respect that they contained preservative prohibited by the Regulations. Informations were lodged with the County Clerk in cases which were dealt with formally.

EXAMINATION OF FOODSTUFFS, ETC., AS SUPPLIED TO INSTITUTIONS
AND SPECIAL SCHOOLS.

Systematic inspections were made during the year at County Institutions and Special Schools, and the following samples of foodstuffs, soap, etc., as supplied by the various contractors taken for examination in the Bacteriological and Chemical Laboratories, viz. :—Grade A (T.T.) Milk, 33 ; Butter, 5 ; Mince, 4 ; Sausage, 48 ; Suet, 1 ; Fruit Cordial, 2 ; Coffee, 1 ; Rice, 2 ; Barley, 1 ; Bread, 6 ; Vanilla Essence, 1 ; XX Pale Soap, 3 ; Soft Soap, 12 ; Soap Powder, 9.

The following samples, (viz.—Sausage, 4 ; Soft Soap, 6) did not comply with the required standards, and the contractors concerned were communicated with.

COAL SUPPLIES TO COUNTY INSTITUTIONS.

89 inspections were made to Institutions, and 135 samples of coal supplied to them by various contractors taken for examination in the Laboratory at Uddingston Gas Works.

MERCHANDISE MARKS ACT, 1926.

The Orders in Council made under the above Act requiring an indication of country of origin by means of marking or labelling on specified imported articles have received attention during the routine inspection of shops. The work done has been mainly informative and cautionary. Generally speaking, merchants are doing their best to meet the provisions of the law. Many contraventions were detected, but these were remedied on attention being drawn to the matter.

FERTILISERS AND FEEDING STUFFS ACT, 1926.

The simplification of the procedure under the above Act in order to encourage farmers to have samples of fertilisers and feeding stuffs taken by the official samplers for analysis has not resulted in farmers making any more use of the Statute than they formerly did under the old Act with all its restrictive formalities.

6 inspections were made and 10 samples of fertilisers procured on request by a Farmers' Trading Association. Sampling under the Act is carried out by the Food and Drugs Inspectors.

The following table shows the number of samples obtained and the number found deficient :—

FERTILISERS.

Name.	Obtained.	Deficient.
Sulphate of Ammonia, ...	1	—
Basic Slag, ...	1	—
Superphosphate, ...	1	—
Ground Mineral Phosphate, ...	1	—
Potassic Mineral Phosphate, ...	1	—
Kainit, ...	1	—
Muriate of Potash, ...	1	—
Potash Salts, ...	1	—
General Purpose Manure, ...	1	—
Finger and Toe Mixture, ...	1	—
Total, ...	10	—

The Agricultural Analyst reported that the composition of the fertilisers agreed with the warranties on the invoices. Copies of the certificates were sent by the Agricultural Analyst to the parties concerned.

PHARMACY AND POISONS ACT, 1933.

This Act, together with the rules made under it, came into operation on 1st May, 1936. By the Act, County Councils have the duty of keeping a register and granting licences to shopkeepers to sell poisons such as Ammonia, Sheep Dips, Insecticides, Rat Poisons, Hair Dyes, etc., under Part II. of the Act. The fee charged for registration and licence is 7s. 6d. for the first year, and 5s. per annum thereafter. There were 200 shopkeepers on the register for 1936 licensed to sell the various poisons under Part II.

45 localities were visited and 250 inspections made with a view to the control of the sale of poisons specified in Part II., amongst grocers and other shopkeepers, and to give information as to the steps required for procuring licences. 18 samples of ammonia and 2 of disinfectants were procured for analysis in the Chemical Laboratory. 8 samples of ammonia were found to be of a less strength than 5 per cent., which can be sold without the shopkeeper being licensed, whilst 10 contained ammonia ranging from 5.6 to 11 per cent., and the shopkeepers concerned were notified that they would require to apply to the County Clerk for a licence. The samples of disinfectant conformed to the requirements of the Act.

SHOPS ACTS, 1912-1934.

The work under the above Acts has been carried out by the Food and Drugs Inspectors on the same lines as in previous years, with a view to assisting shopkeepers and their assistants to obtain the benefit of better working conditions conferred on them by Statute. Legal proceedings against the offenders are only instituted as a last resort, where cautions have not been effective in putting a stop to infringement of the terms of the Acts. In the main, offenders are generally small shopkeepers and itinerant hawkers. Table D shows the number of inspections to localities, visits to shops, and contraventions detected under the Act. There were 22 contraventions. These consisted of 5 cases of failure to close at the time fixed on weekly half-holidays and under Closing Orders; 1 case of street trading; 2 cases of over-employment of young persons under eighteen years of age; and 14 failures to exhibit Statutory Notices.

26 Statutory Notices were issued to shopkeepers.

The following paragraphs give particulars regarding inspections made in connection with the administration of the Acts and the irregularities detected :—

Shops' Weekly Half-Holiday.—The Weekly Half-Holiday Orders operative in the County Area apply to (1) the district covered by the old Middle Ward area ; (2) the Parish of Carluke ; (3) Baillieston and District Butchers' Order ; (4) Lower Ward Butchers' Order ; and (5) Bothwell Parish Butchers' Order. By these Orders, Wednesday is fixed as the day of the weekly half-holiday. In all the other areas of the County the shopkeepers arrange amongst themselves with regard to the day on which they will close their premises in the afternoon, and intimate the day by means of a notice exhibited in their premises. 30 localities were visited on the day fixed for the weekly half-holiday, and, generally speaking, the closing of shops at 1 p.m. on Wednesday was very well observed. 15 contraventions were detected, viz., one case of street trading and 14 failures to exhibit the Statutory Notices. Verbal cautions were given.

Early Closing of Shops in the Evening.—The following Early Closing Orders are in operation within the County :—(1) General Closing Order for all shops in the Parish of Cambuslang ; (2) Butchers' and Grocers' Early Closing Order in Blantyre ; (3) Butchers' Early Closing Order in Baillieston and District ; (4) Butchers' Early Closing Order in the old Lower Ward area ; (5) Hairdressers' Early Closing Order applicable to the Special Lighting Districts of Aitkenhead and Tannochside, Bellshill and Mossend, Blantyre, Bothwell, Cambuslang and Uddingston ; (6) Bothwell Parish Butchers' Shops Order ; and (7) Blantyre (Boot and Shoemakers, Drapers and Tailors) Closing Order.

6 inspections were made to localities in the evening under Closing Orders and the Acts. It was found that, generally speaking, the closing of shops was carried out punctually. 5 contraventions were detected, viz., 5 shops open after hours. Verbal cautions were given.

Street Trading.—During the routine inspections on the weekly half-holiday and in the evenings, attention is given to street traders. 1 contravention was detected, and the offender was verbally cautioned.

Assistants' Weekly Half-Holiday.—At all inspections made, special attention is given to the provisions of the Act with regard to the assistants' half-holiday. No contraventions were detected.

Over-Employment of Young Persons under 18 Years of Age.—Attention was given to the provisions of the 1934 Act, and 2 contraventions were detected. The employers were interviewed and pleaded ignorance of the requirements of the law. The matter was remedied.

Communications.—Many special visits were made as a result of communications received from traders requesting information regarding the provisions of the Acts.

TABLE D.—SHOWING INSPECTIONS, VISITS TO SHOPS, ETC., AND CONTRAVENTIONS IN THE COUNTY IN 1936.

Inspections to localities,	36
Visits to shops, etc.,	198
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CONTRAVENTIONS—

Failure to close: Weekly Half-Holiday and under Closing Orders,	5
Sale of non-exempted goods,	—
Street Trading,	1
Failure to give assistants afternoon off weekly, ...	—
Failure to give assistants proper intervals for meals, ...	—
Employing young persons under 18 years more than 74 hours per week,	2
Failure to exhibit notices in terms of Act, ...	14
	<hr/>
	22
	<hr/>

RIVERS POLLUTION PREVENTION.

SENIOR INSPECTOR, - - FRANK M'ARTHUR.

The work done during the year by the two inspectors is summarised in the following table:—

SOURCES OF POLLUTION—INSPECTIONS AND POLLUTIONS DETECTED.

Nature.	SOURCES LIABLE TO POLLUTE.			POLLUTIONS DETECTED.		
	Number.	Number Inspected.	Number of Inspections.	*Samples Taken.	Number of Sources.	Number Detected.
Coal-Dross Washers, ...	58	51	274	165	19	48
Ammonia, &c., Works, ...	16	4	31	2	1	6
Paper Mills, ...	2	2	12	16	2	9†
Print, Dye Works, &c., ...	4	—	—	—	—	—
Chemical Work, ...	1	1	2	—	—	—
Sewage Works and Outfalls,	—	61	100	10	—	1‡
Streams, &c., ...	—	158	1,026	554	—	—
TOTAL, ...	—	277	1,445	747	22	64

* The samples analysed are dealt with in the Report of the work done in the Chemical Laboratory.

† Samples containing appreciably over 6 parts per 100,000 of suspended solids.

‡ Westthorn Sewage Purification Works. Crude sewage discharge continuous.

Trade Pollutions.

The total mining and manufacturing pollutions detected numbered 63. Of these, 48 were from coal-dross washers, and the remainder from Shotts Iron Works (spent ammoniacal liquor pollution) and paper mills on the North Calder Water. The number of pollutions detected from coal-dross washers was practically the same as in the preceding year.

COAL-DROSS WASHERS.—There were 58 coal-dross washers on the register. The washers at Garthamlock (near Stepps), Greenfield (Hamilton), Hattonrig (Bellshill), and Shotts Iron Works, were removed from the register, having ceased to operate and been dismantled. A new washer was brought into operation at Northfield Colliery, Shotts, and a washer erected in 1925-26 at Benhar Colliery, Harthill, was only brought into operation during the year on the resumption of mining operations at the colliery.

274 inspections were made, 165 samples of effluents taken, and pollutions, involving 19 collieries, detected.

Pollution was detected at the following collieries :—

Auchengeich.	Hassockrigg.
Baton.	Hirstrigg.
Blantyre.	Kingshill.
Blantyreferme.	Mossrigg.
Bredisholm.	Quarter.
Cardowan.	Stepends.
Cornsilloch.	Viewpark.
Douglas.	West Cameron.
Douglas Castle.	Wester Auchengeich.
Wilsontown.	

The following notes refer to the collieries at which pollution of a more or less serious nature was detected.

Auchengeich Colliery, near Chryston.—As in the preceding year, some difficulty was experienced in having certain settling ponds, which collect washer leakages and surface drainage, maintained in satisfactory order. Towards the end of the year, however, very considerable improvement was effected, and cause for serious complaint removed.

Baton Colliery, Shotts.—Arising out of inquiries made on 26th March by the Department of Health for Scotland in connection with a parliamentary question to be asked on 31st March, regarding alleged coal-dross washings pollution of the River Almond, it was found, as a result of special inspections, that the preventive measures at Baton Colliery were very unsatisfactory, the effluent discharging from two

ground-surface settling areas causing very serious pollution of an outfall ditch and the River Almond. Inspection also disclosed the fact that the settling areas were silted up to the level of the outfall pipes, and that a settling pond on the refuse bing, to which it was customary to pump washings from the silt-recovery tank, had not been in use for about three weeks on account of the delivery pipe having burst at several points and not having been repaired. On verbal complaint being made to the colliery manager, immediate steps were taken to sufficiently remedy these defects as to stop pollution. Full reports of the circumstances were forwarded to the Department and also to the County Clerk, in order that the latter might formally communicate with the Shotts Iron Company, requesting them to take the measures necessary to put the preventive measures into a permanently satisfactory condition. Later, in June, the Department inquired as to what steps the owners had taken in that direction, and the position was explained in the following letter to the County Clerk :—

In reply to your letter of the 15th instant, I have to say, with reference to the inquiry of the Department of Health, that the steps taken by the Shotts Iron Company to prevent pollution of the River Almond are regarded as "permanently satisfactory," provided the necessary attention continues to be given to the preventive measures as a whole. A desirable improvement, however, would be the provision of a pulsometer of sufficient capacity to throw more, or the whole volume, of the washings, at present overflowing from the silt-recovery tank, to the bing settling pond, thus lessening the liability of pollution from the ground-surface settling areas. This is a matter, of course, for the Shotts Iron Company, and, while the suggestion has been made to their local manager, who agrees with it, it has not yet been given effect to. In view of the recent complaint and present inquiry, it might be considered desirable to follow up the Company's letter to you of 15th April last and make the suggestion to them in writing.

To the County Clerk's communication the owners replied :—

. . . With the completion of certain changes we have before us, a pump of the sort referred to in your letter will not be necessary. We are installing new furnaces at our boilers at this particular colliery, and also investigating into the changes which might with advantage be made at the washery. With these two proposals completed—and the first one we expect will be in the very near future—we think that whatever trouble there may have been will be completely prevented. . . .

On 9th October, the Department inquired as to whether the proposed changes had been effected, and the County Clerk was informed

on 22nd October that the preventive measures were regarded as satisfactory, and that the changes referred to related, with regard to the steam boilers, to the adoption of a patent forced-draught method of firing the boilers, by the use of which coal-washings silt, without admixture, could be used as fuel. It was also explained that there was no need to further discuss the question of a larger pulsometer as a contract had been let for the reconstruction of the washer, of which only the silt-recovery tank would be retained. Reconstruction of the washer did not, however, commence until early in the current year, and, on 29th December, serious pollution was found to be occurring, due to the lower half of the settling area being silted up to the level of the outfall pipe. This defect was at once put right. Meantime, the cleaning of the upper portion of the settling area had been proceeding, the silt being used for firing the steam boilers.

Blantyreferme Colliery.—The following report, dated 11th September, regarding the unsatisfactory preventive measures at this colliery, was forwarded to the County Clerk :—

I have to report that the preventive measures at the above colliery, owned by Messrs. A. G. Moore & Co., Ltd., 142 St. Vincent Street, Glasgow, C.2, are unsatisfactory, and that polluting coal-washing effluents are still being discharged to the River Clyde. A sample of effluent taken on the 1st inst. from one outfall has been found to contain 443·0, and, from another outfall, 2,989·0 parts per 100,000 of suspended coal matter. In view of past experience of the working of the preventive measures, it is necessary that some other method of disposing of the coal-washing effluents should be adopted, and, at my inspection on the 1st inst., I, as I have done on previous occasions, discussed the question with the colliery manager, who fully realises this necessity and believes that arrangements could now be made for intercepting the effluents and conveying them to an area of ground from which a debris bin has been removed. On this area a suitable settling pond or ponds could be formed to which the coal washings could gravitate. Such a scheme would eliminate pumping, and, provided the interception is complete, would probably be satisfactory. I, therefore, suggest that the colliery owners be communicated with, complaining of the continued occurrence of pollution of the River Clyde, and allowing them a period of, say, one month, within which to carry out the scheme suggested by their manager, or to make such other arrangements as will prevent further pollution of the river. This has been a most difficult colliery to deal with, and a good opportunity would now seem to exist for having a satisfactory scheme of preventive measures carried out.

On the suggestion contained in the report being put before the owners by the County Clerk, they agreed to give effect to it, although the scheme would take some little time to carry out. It was not, in fact, completed until the current year.

Cornsillock Colliery, near Larkhall.—The preventive measures at this colliery were maintained in good order during most of the year, during which period the condition of the Mill Burn was satisfactory. On 21st October, the bing settling pond gave way, but repairs were immediately effected. In November and December, however, serious pollution occurred on several occasions due to failure to pump the washings to settling ponds on the bing and to allowing the washings to overflow from ground-surface settling ponds to the outfall ditch. These unsatisfactory conditions were taken up with the colliery management and remedies effected.

Hassockrigg Colliery, near Shotts.—The most serious instance of pollution of the River Almond from this colliery detected during the year was on 4th February, and was due to the settling area being silted up, and there being some difficulty in heightening the bank of the area owing to the hard state of the ground through frost. On several other occasions slight pollution, due to minor defects in the settling area, and once to the break-down of a pump, was noted. It was also ascertained that some time in August a large break appeared in the bank of the settling area, but steps had been taken when this was observed to divert the washings to another settling area.

Hirstrigg Colliery, Salsburgh.—As in previous years, the general manager of the Airdrie, Coatbridge and District Water Board complained of alleged pollution of the Shotts Burn. Twice in February he made such complaint. In the first instance, pollution had probably occurred as a result of a too heavy discharge in running off the silt-recovery tank to a settling pond which was in a frozen condition. In the second instance, inspection showed that, as a result of minor defects in the settling ponds, the Shotts Burn headstream was being polluted. Further, it was found that a considerable volume of clean surface water was entering the settling ponds, which made it more difficult to deal with the normal volume of washings effluent. The settling ponds were put into satisfactory order, and the surface water referred to diverted from the ponds. Complaint was also made on 1st April, inquiries into which showed that pit water was being discharged on to a refuse bing (which had been on fire) and that as a result solid

matter was being carried into the Shotts Burn. On attention being drawn to the matter, the pit water was diverted from the bing and other remedial measures taken, which removed cause for complaint. Otherwise, there was no reason to seriously complain of the condition of the Shotts Burn or of the preventive measures during the year, although in May complaint was made as to intermittent turbidity of the Shotts Burn below Hirstrigg. This condition probably coincided with the bi-weekly discharge of the silt-recovery tank to the settling ponds, and precautions were taken to reduce the possibility of pollution when this was being done.

Viewpark Colliery, Uddingston.—There was no reason to complain of serious pollution of the Pow Burn. The preventive measures were re-arranged more than once during the year. This was necessary mainly because of the removal of a bridge which carried the washings pipe to bing settling ponds on the north side of the Edinburgh Road. Several meetings were held with the management, and the best means of dealing with the coal washings effluents in the altered circumstances discussed. Ultimately, it was considered that the best scheme would be to form a large settling pond on the area east of the colliery buildings where ashes are deposited, to which the washings from the silt-recovery tank could be pumped, and to treat surface drainage in brick-built settling ponds which had recently been constructed. This scheme was duly carried out with satisfactory results.

Wester Auchengeich Colliery.—It was found necessary to make serious complaint with regard to the preventive measures at this colliery, which is situated in the watershed of the River Kelvin and drains to this stream through the Park Burn and its headstream, the Robroyston Burn. Quite apart from prior action taken in this respect, complaints were received on behalf of the Dunbartonshire Local Authority and from a farmer whose lands adjoin the Park Burn. The matter was the subject of several communications to the County Clerk, who made complaint to the colliery owners, and the conditions complained of were briefly described in the following letter, dated 31st March :—

I have received a report from the Rivers Inspector to the effect that on the 19th instant he found very serious coal-dross washings pollution of the Robroyston Burn occurring from this colliery, owned by Messrs. Jas. Nimmo & Co., Ltd., 21 Bothwell Street, Glasgow, C.2, due to the fact that the banks of the settling area had given way a day or two previously. He

explains that the measures to prevent pollution consist of two brick-built settling ponds and a large sub-divided settling area, the banks of which are formed of coal-washings silt as excavated in the process of cleaning. It has been found that, although a workman is engaged continually cleaning out the sections of this area and attending to the banks they are liable to give way, resulting in serious pollution. This has occurred on several occasions. Further, the brick-built settling ponds, which were the original ponds used when the washer was brought into operation in December, 1933, and have been retained to be used in an emergency, such as it not being possible to pump the washings to the settling area through, for example, failure of the electric power, which sometimes occurs, have not been maintained in satisfactory order, although they may have been cleaned out since the pollution now reported was detected. The Rivers Inspector has suggested to the local management from time to time that so far as the settling area is concerned it would be much more satisfactory if a deep settling pond composed of washer dirt were formed to which the washings could gravitate or be pumped as necessary. This method is adopted at other collieries owned by Messrs. Nimmo, with satisfactory results, and the Rivers Inspector had a special meeting on 23rd instant with the present colliery manager, who only recently took up duty at Wester Auchengeich, to discuss the question of preventing pollution generally and to further advocate this suggestion. While the local officials have invariably done their best to prevent pollution with the settling area as it exists, this area cannot be regarded as satisfactory, and I shall be obliged if you will now take the matter up with Messrs. Nimmo.

It might be added that the effluent discharging through the broken outside bank of the settling area on 19th March contained 6684.0 and the Robroyston Burn below the entrance of the effluent 706.0 parts per 100,000 of suspended solids, and that this stream, as the Park Burn, flows into Dunbartonshire at Boghead, near Lenzie, eventually forming the boundary between Lanarkshire and Dunbartonshire, joining the River Kelvin near Kirkintilloch.

No alteration in the method of disposing of the washings was made up to the end of the year.

Wilsontown Colliery.—The preventive measures at this colliery were, on the whole, maintained in satisfactory order throughout the year. Only once (in January) was it considered necessary to complain to the owners through the County Clerk, consequent on the detection of serious pollution of the River Mouse. Pollution was due to the fact that debris forming part of the bank of the extensive settling area

was of such a nature as to permit of too easy percolation, the filtrate containing a very large amount of suspended solids. Remedial measures were effected.

The other 10 collieries (page 187) at which pollution was detected do not call for special reference.

AMMONIA, &C., WORKS.—The number of inspections made during the year was 31 and 2 effluent samples were taken.

Shotts Iron Works.—In view of repeated complaints of serious pollution of the South Calder Water, special observations were made in the upper reaches of the river below Shotts, which revealed the fact that the stream was being intermittently, but with apparent regularity, grossly polluted by spent ammoniacal liquor from Shotts Iron Works. Such pollution occurred at the week-end, in the early hours of the morning, and was believed to be due to the discharge of residual volumes of spent ammoniacal liquor from the works' steam boilers, to which the spent liquor produced in the manufacture of sulphate of ammonia is conveyed for the purpose of evaporating it. One of these boilers is blown down each week-end and the liquor discharged to a pit or pond from which it gradually seeps into the soil and is dissipated. The period covered by the special observations was 25th April to 28th May inclusive, and a large number of samples was taken for analysis. A full report was forwarded to the County Clerk, who submitted the matter to the committee concerned at a meeting held on 9th June, when it was decided that application should be made to the Department of Health in terms of Section 6 of the Rivers Pollution Prevention Act, 1876, for their consent to institute legal proceedings against the Shotts Iron Company, who own the works. This was duly done, and, on 28th July, officers of the Department (Dr. Wylam, Inspector under the Rivers Pollution Prevention Acts, and Mr. J. B. Paterson, Engineering Inspector) made an inspection, accompanied by the Local Authority's Chief Rivers Inspector, of the South Calder Water and at the Iron Works, and made inquiry generally into the matter. These officers submitted a report to the Department, in which they stated :—

From our inspection of the pits previously used, we are of the opinion that the liquor, in the past, has not been soaking away entirely, and that some discharge to the stream has taken place on occasion following on the operation of blowing down a boiler.

In order to avoid in future any pollution from overflow, we suggested that the use of the old pits should be abandoned and that a second new pit should be made of similar size to the one already constructed. A layer of ashes should be put into both and the pits used alternately. This would allow of the periodic removal of the ashes contaminated with silt, which silt probably would prevent the liquor soaking away. These waste ashes should be deposited upon the slag heap. At the same time, care must be taken to ensure that the boilers are completely emptied to the pit when blown down.

Their conclusions and recommendations were summarised as follows :—

Conclusions.—

(1) We are of the opinion that the South Calder Water was polluted by waste ammoniacal liquor on the occasions alleged by the County Council.

(2) This pollution was probably caused by insufficient precautions being taken for the disposal of concentrated waste liquor from the steam boilers.

(3) We believe that, if the suggestions made above are carried out, the cause of pollution will be removed.

Recommendations.—

(1) We recommend that permission for the Lanarkshire County Council to prosecute the Shotts Iron Company be withheld for a period of four months.

(2) That the suggestions we have made for the prevention of pollution be communicated to the Shotts Iron Company with the request that they be carried out without delay.

(3) That the Iron Company should be requested to inform the County Council of the dates and times when boilers are to be blown down in order that the Council's Inspector may observe whether any effect is produced up the stream by the discharge of liquor.

The County Council should be asked to inform the Department of the results of their Inspector's observations.

The decision to take steps towards legal proceedings was duly communicated to the Shotts Iron Company, who were also informed of the substance of the Department's inquiries, and they at once

carried out the remedial measures recommended, the relative report of their Works' Manager being as follows :—

With reference to your letter of to-day's date and attached letter from the County Clerk referring to the pollution of the River Calder, all the recommendations that were made by Dr. Wylam of the Department of Health have been carried out, viz. :—That an extra hole be made similar to the one that had already been made with a layer of ashes ; these holes to be used alternately for periods of five weeks when the dirty ashes will be removed and fresh ashes put in.

In addition to the recommendation made by Dr. Wylam, I have fitted a pipe to drain the spent liquor that remains in the sludge pipe after the boiler has been emptied, making doubly sure that no spent liquor is getting to the burn. The burn is examined by us three times daily and no liquor has been observed any day for two weeks previous to the meeting, and this was corroborated by Mr. M'Arthur of the County Council at the meeting held here on 28th July.

The date and times when boilers are blown down for cleaning is from 1 a.m. till 4 a.m. every Saturday.

On consideration of the foregoing information the Public Health Sub-Committee agreed to the suggestion of the Department to defer consideration of the application for consent to take proceedings, and observations at the Iron Works and of the South Calder Water were resumed to determine as to the efficiency of the remedial measures, the River Inspector's report of these observations, dated 1st October, being as follows :—

Relative to the action taken in the matter of pollution of the South Calder Water from Shotts Iron Works, and, in particular, to the second paragraph of the letter, dated 15th August, 1936, from the Department of Health to the County Clerk, I have to report that I made inspections at Shotts Iron Works on the 5th and 12th September, and observed the procedure now in operation in blowing down the steam boilers in which spent ammoniacal liquor is used for steam raising, also observing and taking samples of the South Calder Water below the Iron Works before and after the blowing down of a boiler. The results of these observations, together with the Chemist's results of examination of the samples taken, are here tabulated :—

Date.	Stream examined before blowing down.	Blowing down of boiler.	*Valve opened and residue drained to collecting boiler.	Boiler completely drained.	Stream examined after blowing down.
5/9/36.	<i>Hour</i> —12.40 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, 0.78 parts per 100,000.	Began, 1.5 a.m. Ended, 1.45 a.m.	1.45 a.m.	1.55 a.m.	<i>Hour</i> —2.35 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, 0.85 parts per 100,000.
12/9/36.	<i>Hour</i> —12.45 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, 0.62 parts per 100,000.	Began, 1.5 a.m. Ended, 1.55 a.m.	1.55 a.m.	2.25 a.m.	<i>Hour</i> —2.50 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, 0.85 parts per 100,000.

* To be later pumped to pit.

Later, on the second day of these observations, I inspected the South Calder Water at various points, beginning at Allanton New Mill, over two miles below Shotts Iron Works, at 9.30 a.m., and ending at Calder Bridge (Coltness-Wishaw Estates) at 9.55 a.m., and found no evidence of spent ammoniacal liquor pollution.

I also, on the 19th and 26th September, on each of which dates a boiler was blown down at the usual early hour, examined the South Calder Water at points below the Iron Works and took samples of the stream. The results of these observations, together with the Chemist's report on the samples, are as follows :—

Date.	Allanton New Mill, over 2 miles below Shotts Iron Works.	Hawkwoodburn, about a mile below Shotts Iron Works.	400 yds. below Shotts Iron Works.
19/9/36.	<i>Hour</i> —6.30 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, nil.	<i>Hour</i> —6.50 a.m. <i>Condition</i> —No colour or froth.	<i>Hour</i> —7.15 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, nil.
26/9/36.	<i>Hour</i> —6.25 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, nil.	<i>Hour</i> —6.35 a.m. <i>Condition</i> —No colour or froth.	<i>Hour</i> —6.50 a.m. <i>Condition</i> —No colour or froth. <i>Analysis of Sample</i> — Phenols, nil.

On the 5th and 12th September I examined the new pits and found them to be properly constructed, and I have every reason to believe they will be operated as contemplated by the Department's officers. A third pit will be dug if found necessary.

The results of the observations made, and of analyses of the samples taken, indicate that the remedial measures taken at Shotts Iron Works to prevent intermittent spent ammoniacal liquor pollution of the South Calder Water are satisfactory and that cause for complaint has been removed.

The Public Health Sub-Committee, on consideration of this report, agreed that no further action in the way of legal proceedings against the Company was necessary, the Department of Health also informing the County Council that, in view of the altered circumstances, they had decided to withhold their consent. No further cause for complaint was found during the year.

Wilsontown Ammonia, Etc., Works.—A complaint was received to the effect that the River Mouse had, on Sunday, 10th May, been seriously polluted by oily matter, that dead trout had been found in the stream, and that even the "air was polluted in and around Wilsontown." Immediate inquiries were made into the complaint, and, as the circumstances, as disclosed, are of special interest, the Rivers Inspector's report of his inquiries is given in full :—

I have seen . . . , and made careful inquiries and inspections with regard to his communication received on 15th May, 1936, as to serious pollution of the River Mouse from Wilsontown Works. I also obtained from . . . a sample of the stream which he took at Cleugh Bridge about 4 p.m. on Sunday, 10th May, the date on which he and others detected the pollution. On the evening of Friday, 15th May, I examined all the outlets from Wilsontown Colliery and By-product Plant, and clearly traced the source of the pollution complained of to the benzol recovery plant. On the 19th instant I met Mr. Fraser, Coke Ovens and Chemical Plant Manager, and the Colliery Manager, Mr. Gibson, and acquainted them of the serious pollution which had been reported and of what I had found. Mr. Fraser at once stated that he knew of the pollution, and that it had been due to a large discharge of spent creosote oil through the intercepting spillage ponds and thence to an outfall ditch headstream of the River Mouse. This discharge, he explained, was unauthorised and must have been caused by some malicious person putting into operation the steam pump which raises the spent oil from a storage tank into a railway tank for removal for trade-purpose uses elsewhere. This act he believes occurred

some time late on the Saturday night or early on the morning of the day on which the pollution was observed. He was astounded to find what had occurred, and took immediate steps to make it impossible for any unauthorised person to interfere with the pump in future, by placing the operating throttle inside the benzol house. The pump is situated outside the building, unenclosed, and quite accessible to anyone, and, as steam is always on, could be put into operation without difficulty. Mr. Fraser was positive that this is what had occurred, and was equally positive that the measures he had taken would prevent the same thing happening again.

With a view to preventing what might be termed normal pollution from the earthwork ponds which intercept oil spillings and drainage from about the benzol plant, I suggested to him that the possibility of pollution occurring from these ponds would be prevented by diverting such spillings and drainage to the pipe which conveys spent ammoniacal liquor to old mine workings. He agreed that it would, and further agreed to at once arrange with the engineer to procure the necessary pipes and have the diversion carried out. With regard to the measures to prevent coal-dross washings pollution, these are in satisfactory order and there is no leakage from the spent ammoniacal liquor pipe.

I had a further meeting with Mr. Fraser on the 21st instant, when I ascertained that in addition to the preventive measures above described he was taking means to remove another potential source of intermittent pollution from the benzol recovery plant. These concern the benzol receivers and consist of laying a pipe to intercept water, with which might be carried a certain amount of benzol, drawn off each morning from the bottom of the receivers. At present this liquid reaches the outfall ditch, but it will, in future, be taken into the ammoniacal liquor storage tank and not go to waste. The intercepting pipe was actually being laid at the time of my visit, and the pipe to convey creosote oil spillings, etc., to the spent ammoniacal liquor pipe would be laid, I was assured, in three or four days' time. We also discussed the possibility of pollution by other effluents, such as coke-quenching water and cooling water, and it was considered that none of these was liable to give rise to complaint.

The owners of the works were informed by the County Clerk of the complaint and of the result of the investigations made, and, on 29th May, they wrote to the County Clerk as follows :—

We are in receipt of your letter of yesterday's date following on a report received by the local authority from the County Medical Officer regarding pollution of the River Mouse through liquid matter from Wilsontown Works, and we may say that this occurrence was reported to us at the time and the matter

gone very thoroughly into. We were convinced from our investigations that some maliciously minded person had interfered with the plant during the night-time, but have been unable to discover who the culprit was. However, as mentioned to your Rivers Inspector, steps were at once taken to throttle the pump in such a way that no such thing should be able to occur again.

We can assure you that we are very anxious to avoid anything in the nature of pollution, and that we will continue to exert out very best endeavours towards this end.

No cause for similar complaint arose during the year.

Two other complaints were, however, received, alleging that sheep were dying as a result of drinking the water of the River Mouse at Cleugh Farm. One of these complaints was made in June, and inquiries showed that only one sheep had died and that no veterinary opinion had been obtained as to the cause of death. Analysis of the river water afforded no evidence of the presence of poisonous substances. The other complaint was received a month later, and again involved a single sheep out of 100 on the farm. In this instance veterinary opinion was to the effect that the sheep had died of pneumonia.

MANUFACTORIES.—The number of inspections made during the year was 14, all of which, with the exception of 2, were at Caldercruix and Moffat Paper Mills. 16 samples were taken.

Caldercruix Paper Mills.—Of 9 samples of effluent only 3 contained more than 6 parts per 100,000 of suspended solids—7·4, 7·8, and 9·5. These results are very satisfactory. The additional ground on which to form new sludge-settling areas, referred to in the report for the preceding year, has been acquired, and the culverting of a small stream dividing the existing areas from the proposed new areas is proceeding.

Moffat Paper Mills.—The amounts of suspended solids, in parts per 100,000, in samples taken at these mills were :—

Date of Sampling.						Suspended Solids.
18th March,	...	...	...	...	...	47·0
28th April,	...	...	...	...	...	34·0
10th July,	...	...	...	...	...	28·4
31st August,	...	...	...	...	...	10·5
3rd November,	...	...	...	...	...	28·0
17th November,	...	...	...	...	...	33·0
*28th December,	...	...	...	...	...	Trace.

* Effluent as discharging from settling ponds ; mills not in operation.

It will be noted that the quality of the effluent discharged from the settling ponds at these mills is not nearly as good as that from the settling ponds at Caldercruix Mills, in the same ownership. The new sludge-settling area, referred to in the report for the preceding year, was brought into use, and is proving satisfactory.

Glengowan Print Works.—These extensive works, situated on the North Calder Water, above Caldercruix Paper Mills, have ceased to operate and will be dismantled.

Solid Matter Pollution.

No new offence of note against Section 2 of the Rivers Pollution Prevention Act, 1876, was reported during the year.

A recurrence of a serious infringement dealt with in 1933, was however, detected and reported on in the following letter, dated 20th April, from the County Medical Officer to the County Clerk :—

Referring to my letter to you of 17th June, 1933, and subsequent correspondence, with regard to the question of a serious infringement of Section 2 of the Rivers Pollution Prevention Act, 1876, on Farme Estate, I have to acquaint you that the Rivers Inspector reports that the Act is being again contravened by the recent depositing of debris on the upper side of the wooden buildings referred to in that letter.

It will be recalled that efforts were made to have the depositing of debris stopped, and the buildings, which were erected by a squatter, Wm. Barnes, removed. The depositing of debris on the lower side of the buildings was stopped, but the buildings have not been removed, although it is understood that the feu of the ground on Farme Estate on which the buildings stand, Mr. James M. Davidson, Fish Merchant, made every effort to have this done.

At an inspection made by the Rivers Inspector on the 17th instant, he found, as above indicated, that there had been fresh depositing of debris on the upper side of the buildings, to an extent, so far as jutting into the river is concerned, perhaps even greater than formerly. The Rivers Inspector drew the attention of Mr. Davidson's local manager to the circumstances at the time of his inspection, and, on the following day, he had an interview with the firm's consulting engineer and a telephone conversation with Mr. Gordon N. Davidson, when he indicated to Mr. Davidson that, although the debris deposited on the river bank had not been put there by him, as he was the feu of the ground, he could probably be held liable for the contravention in respect of knowingly permitting it. Mr. Davidson

explained that he had been unable to get Barnes, who was the cause of all the trouble, cleared out of the place, but that he would gladly go into the matter again with his law agents, and asked that he might be written to in the strongest possible terms with regard to the contravention of the Act and as to having the buildings removed. He also indicated that he was willing to take immediate steps to prevent further depositing of debris, and asked the Rivers Inspector what he thought should be done for this purpose. The Inspector suggested that probably the best way would be to fence his ground off entirely from the road by a sleeper fence, and he said he would have this done at once.

I shall be glad if you will, as soon as possible, again communicate with Mr. Davidson in the terms indicated.

On being communicated with, the ground feuar promised to erect an iron fence in such a manner and position that no further tipping of solid matter could take place there. This promise was duly implemented, and it was considered that, so far as the wooden structures were concerned, no further action under the Rivers Pollution Prevention Act was called for.

Roarin' Jenny Burn, Salsburgh.—Attention was drawn to the depositing of ashpit refuse on rough pasture lands adjoining this small stream, which is a tributary of the Shotts Burn, it being also alleged that an offence against Section 2 of the Rivers Pollution Prevention Act, 1876, had been committed. Inquiries made showed that while the refuse had been deposited on the pasture, the stream had not been directly affected as suggested, although in flood conditions there might be liability to the refuse being washed into the stream.

Sewage Pollution and Sewage Disposal.

100 inspections of sewage purification works and sewage outfalls were made, and 10 samples taken.

Matters of interest dealt with or which were under consideration may be referred to.

Bothwellpark Drainage.—The question of pollution of the Pow Burn on Bothwellpark Farm by a discharge of crude sewage through an old estate sewer, referred to in the report for the preceding year, has been disposed of, the sewage complained of being now intercepted in a tank before passing to the outfall.

The question of the disposal of sewage from Muirpark Rows area of Bothwellpark Special Drainage District was raised in committee. This area is included in a list of places where improved sewage disposal facilities are required, and which has been under consideration for some time.

Burgh of Hamilton.—The construction of the sewage purification works near Bothwell Bridge, referred to in the previous report, was begun during the year.

Burgh of Motherwell and Wishaw.—Complaint was made as to sewage pollution of the Dalzell Burn which was ascertained to be due to a discharge from a burgh sewer at Burngrange, which had become affected by mineral workings. In addition to the construction of the new Craigneuk-Carbarns sewer, referred to in the report for the preceding year, a scheme of reconstruction of sewers in the burgh area concerned, or re-arrangement of interception, necessitated by mineral disturbance, has been carried out in the current year.

The construction of sewers, for the interception of sewage to be dealt with at purification works on the River Clyde north of the Hamilton-Motherwell Bridge was commenced.

Carnbroe Drainage.—The question of drainage and the provision of joint sewage purification works with the Burgh of Coatbridge was again under consideration towards the end of the year and was continued for further consideration of the housing position at Carnbroe.

Carstairs Junction Drainage.—Intimation having been made by H.M. Office of Works that a scheme for the treatment of sewage from the proposed Criminal Lunatic Asylum and State Institution for Mental Defectives near Carstairs Junction, was under consideration, and that it was proposed to discharge the effluent from sewage purification works into a burn beyond the bounds of the Institution, an inspection of the site and drainage area was made, after which the following communication, dated 2nd December, was sent to the Architect, Scotland, H.M. Office of Works :—

Carstairs : Criminal Lunatic Asylum and
State Institution for Mental Defectives.

Referring to my letter of yesterday, I have now had the position with regard to the question of sewage disposal at the

above Institution put before me, and it would appear that as the flow of the outfall stream into which it is proposed to discharge the sewage effluent is very small, a very high degree of purification would be necessary so as to avoid any cause for complaint. As, however, the local authority are at the moment considering the question of a drainage scheme for Carstairs Junction village (which is near the site of the Institution) including the provision of sewage purification works, from which the effluent would be discharged to the River Clyde, I have raised the question of the possibility of the drainage of the Institution being taken into that scheme. Such a course would, if possible, be most desirable from all points of view, and I should be glad if you would get into communication with the County Drainage, &c. Engineer, Mr. Thomas M. Stephen, Clydesdale Street, Hamilton, with whom I have discussed this aspect, and who will be pleased to go into the whole matter with you.

The matter was subsequently considered by the Drainage Committee when it agreed that the course suggested should be taken.

Carstairs Drainage.—A complaint was received alleging that the Flush Burn, which receives the effluent from a tank which intercepts the sewage from Carstairs Special Drainage District (Carstairs Village), was in an unsatisfactory condition and emitted an obnoxious smell. An arrangement was come to with the complainers (the Board of Management of St. Charles' Institution) whereby the local authority gave assistance with the cleaning out of the water-course, which met their complaint meantime. The question of a scheme for the satisfactory treatment of the sewage from the special district is also under consideration.

Hairmyres Colony Drainage.—Complaint was again made with regard to pollution of the Bogton Burn into which the effluent from the sewage purification works discharges. The circumstances are fully explained in the following letter, dated 11th June, from the County Medical Officer to the County Clerk:—

I enclose copy of correspondence (including copy of the analyses referred to therein) I have had with regard to complaint made by Mr. James D. Paterson, Hayhill House, Thorntonhall, as to serious pollution of the Bogton Burn, into which the effluent from Hairmyres Colony is discharged. The question of pollution of this stream and of the Gill Burn, of which the Bogton Burn is a tributary, has given cause for concern in recent years, and in connection with inquiries made into the present complaint I have this morning been informed by the Rivers Inspector that the Bogton Burn, in which, owing

to the continued dry weather, there is little more than sewage effluent, is undoubtedly in a seriously polluted condition. With regard to the question of remedial measures, it will probably be agreed that the existing sewage purification arrangements are, especially in view of the small water-course to which the effluent drains, inadequate to satisfactorily deal with the increasing demands made on them. In view of these circumstances, as you are no doubt aware, the possibility of diverting the Colony sewage to the recently completed sewage purification works for East Kilbride Special Drainage District at Hawbank has been under consideration, and that instructions have been given to the County Drainage, &c. Engineer to go further into this suggestion and also to report on an alternative scheme of sewage purification at the Colony. In any case the matter has become urgent. As to temporary measures to alleviate the present summer conditions, I have asked the officials concerned to go into the matter to see if anything can be done in that direction, and I will report the result to you.

Temporary measures to effect improvement (relating mainly to details of management of the works) were duly carried out, but the further report by the County Drainage, &c. Engineer had not been submitted up to the close of the year.

Larkhall Drainage.—Complaint, which had been made on several occasions in previous years, was again made as to alleged nuisance conditions affecting the mansion house and policies of Fairholm, and caused by the effluent from Merryton Sewage Purification Works which falls over a steep bank into the River Avon. It had been before suggested that nuisance conditions would probably be prevented by piping the effluent into the river at a point where it would be quickly carried away. The Drainage Committee considered the present complaint and agreed to have this done at an estimated cost of about £800.

Lesmahagow Drainage.—*Lesmahagow Creamery*—The question of serious pollution of the River Nethan by effluents, particularly whey, from Lesmahagow Creamery was again under consideration, and meetings between a sub-committee of the Drainage Committee and representatives of the Scottish Milk Marketing Board, to discuss the problem held. It appeared from these discussions that with a view to minimising pollution the whey produced at the creamery was being liberally diluted with water before discharge to the river, and that the output of cheese had been cut down by half as compared with the preceding year. As, however, the local authority had no facilities for the treatment of creamery effluents, and as none existed at the

creamery the sub-committee agreed to request the Board to cease discharging whey, no objection being taken meantime to the discharge of floor and utensil washings. Ultimately, there being a deadlock so far as whey disposal was concerned the Board arranged to discontinue cheesemaking at Lesmahagow and closed down the creamery on 14th August.

New Lanark Drainage.—Inquiries were made into a complaint of alleged nuisance conditions arising from the privately owned sewage disposal works for New Lanark Village, the complainer stating that the smell along the bank of the River Clyde below the works was very offensive. After careful inspection of the works by the Rivers Inspector and a meeting with the Gourock Ropework Co.'s manager (the village is owned by the Company) it was promised that certain matters connected with the management of the works, so as to lessen the possibility of pollution of the River Clyde, or the creation of nuisance conditions, would be attended to in future. It was also agreed that the effluent pipe would be extended approximately a further 30 ft. into the river so that even when the river is low the effluent will be well mixed with the river water. No further complaint was received.

Salsburgh Drainage.—Complaint was made by a dairy farmer alleging pollution of the Shotts Burn from Salsburgh Sewage Purification Works, and also alleging that the works were a breeding ground for insects, which had caused grievous injury to himself and his work horses. He also alleged that there was a stench from the works which could be felt in his field adjoining the works, and that, further, he believed the health of his cattle had suffered as a result of pollution. The County Drainage, &c. Engineer, in reporting on the matter, pointed out that the sewage purification works were situated below the intake for the Airdrie, Coatbridge & District Water Board's Roughrigg Reservoir, and that practically throughout the whole year no water was passed on to the Shotts Burn, and that improvement would be effected by allowing some of the burn water to pass the intake. He considered also that improvement would result from cleaning out a certain part of the burn, but that in view of the Water Board's position the County Council should not bear the whole cost of this. The whole matter was continued for further information and inquiry.

Thankerton Drainage—Thankerton Creamery.—Reference is made in the report for the preceding year to an agreement between the

Scottish Milk Marketing Board and the Local Authority for the installing of an experimental plant for treating whey and other creamery waste along with the domestic sewage of the drainage district. It has now to be noted that the proposal was abandoned consequent on the view of the County Drainage, &c. Engineer, who had reconsidered the whole question, that, for certain technical reasons, it would be inadvisable to incur the expenditure involved in the scheme at Thankerton.

Thorntonhall Drainage.—A communication was received from a houseowner at Thorntonhall referring to a proposal to feu certain farm lands for house building, and explaining that there was apprehension locally that if such a scheme developed, there being no general scheme of drainage at Thorntonhall, most objectionable conditions might be created through pollution of the Thorntonhall Burn. It was also pointed out that at present, although the drainage from individual houses, or groups of houses, is intercepted in septic tanks or cesspools before discharge to the burn, occasionally in summer, and even in certain conditions in winter, obnoxious smells emanated from such tanks or cesspools or from the burn, but that the residents, generally, were quite satisfied with the existing drainage arrangements. The position of the local authority in the circumstances described was fully explained to the sender of the communication.

Westthorn (Tollcross) Sewage Purification Works.—In terms of the Glasgow Corporation Sewage Order, 1935, these works were taken over by the Corporation as from 15th May.

DRAINAGE AND SEWAGE DISPOSAL—SPECIAL REPORTS.—Continuing the narrative as to the question of grants from the Commissioner for Special Areas (pp. 225-230 of report for 1935), it has to be noted that grants were obtained for the proposed scheme for Carluke and Law and for an amended scheme to embrace Stepps and Chryston and Muirhead. The latter scheme originally included Gartcosh, which area it was found necessary, for engineering considerations, to exclude from the scheme.

Arising out of inquiries made by the Drainage Committee as to drainage conditions at Chapelton, an area for which a drainage scheme was not considered urgent, the committee, on 11th June, instructed that the County Medical Officer should submit a revised report on the drainage schemes still to be undertaken, in light of present circum-

stances, and arranged in order of urgency, so that consideration might be given in due course as to further schemes to be undertaken. The schemes already carried out, in course of being carried out, or agreed to be undertaken, are given in the report for the preceding year (pp. 229-230).

This report was duly prepared, is dated 9th October, and was in the following terms:—

Referring to minutes of meeting of the Drainage Committee, held on 11th June last, I have to submit the following report as to the order of urgency of the Drainage and Sewage Disposal Schemes in the County still to be undertaken.

It will be recalled that in the list submitted in a supplementary report of the County Medical Officer, dated 21st October, 1930, 57 Areas or Special Districts (58 including Rutherglen), arranged in order of urgency, were given as requiring to be dealt with, and, in a report of 2nd May, 1933, the areas or special districts in which works had been carried out, or had been agreed to, were given, and the position with regard to those still to be disposed of further briefly discussed. Since May, 1933, further schemes have been completed or are being carried out, or have been agreed to, and the complete list of such schemes embraces 31 areas or special districts, and is as follows, the number indicating the position in the list of 21st October, 1930:—

2. East Kilbride.
4. Lesmahagow.
6. Salsburgh.
7. Waterloo.
8. Carfin.
9. Newarthill.
12. Larkhall (Clyde outfalls only).
14. Cleland and Omoa.
15. Chapelhall.
16. Greengairs.
17. Glenmavis.
18. Barony.
19. Bishopbriggs.
20. Carmunnock.

21. Chryston and Muirhead.
22. Stepps.
24. Baillieston.
25. Shotts and Dykehead.
26. Bellshill and Mossend (and Holytown).
27. Uddingston.
28. Blantyre.
29. Bothwell.
30. Mount Vernon.
32. Forth and Wilsontown (Forth only).
33. Bargeddie, Swinton and Easterhouse.
35. Meikle Earnock, Cadzow Rows, etc.
36. Plains.
42. Law.
44. Blackwood and Auchenheath.
45. Bothwellpark (less Muirpark Rows).
58. Rutherglen.

In the case of certain areas included in the original list, the committee definitely considered that the local circumstances were not such as to encourage expenditure on drainage or sewage disposal works by the local authority. These areas were :— Quarter, Netherburn, Chapel and Morningside, Auchentibber, and Chapelton. The question of Chapelton drainage has, however, again been raised locally, and the drainage arrangements recently inspected by the committee.

The schemes still to be undertaken, leaving out these mentioned in the above paragraph, number 22, and are :—

1. Calderbank.
3. Ferniegair.
5. Crawford.
10. Douglas.
11. Caldercruix and Glengowan.
13. Bellside, etc., Cleland.

- 23. Cambuslang.
- 31. Leadhills.
- 34. Birkenshaw.
- 37. Bothwellhaugh.
- 38. Carstairs Junction.
- 39. Gartcosh.
- 40. Newmains.
- 41. Newton and Flemington.
- 43. Carnbroe.
- 46. Carstairs.
- 47. Coalburn.
- 49. Braidwood.
- 54. Mollinsburn.
- 55. Abington.
- 56. Crawfordjohn.
- 57. Newbigging.

Before submitting a revised list, arranged in order of urgency, of these 22 areas or special districts, brief notes as to the present position in each case might be made.

1. *Calderbank*.—Drainage and sewage purification works are still a necessity for this special drainage district. Demolition of old property and the erection of new houses have been extensive. The latter has increased the extent of pollution of the North Calder Water.

3. *Ferniegair*.—There is no change in the circumstances here. In the report of 2nd May, 1933, the conditions were fully described, and the conclusion come to that in all the circumstances the need for dealing with Ferniegair was much less urgent than previously considered.

5. *Crawford*.—There is no change to report in the circumstances. Last year, in view of complaints received regarding the condition of a ditch on the Carlisle Road and of a small stream at Bellfield Road, a sub-committee inspected the area, when it was agreed that arrangements should be made for the periodical cleaning of the stream and the piping in of the ditch complained of. This decision was duly given effect to.

10. *Douglas*.—Quite recently a petition from ratepayers in the district, alleging unsatisfactory drainage as a result of which nuisance conditions arose, was forwarded to the local authority. The arrangements for sewage purification are quite inadequate, and it will probably be considered desirable that the question of the drainage and sewage disposal arrangements should be again considered.

11. *Caldercruix and Glengowan*.—In the report of 2nd May, 1933, this area was referred to as follows :—

The position here is unchanged so far as the area's drainage and sewage disposal requirements are concerned. The estimated cost of a scheme, however, being so great in relation to the assessable rental, and local opinion in view of that being represented as being against a scheme, the question of urgency may be revised. The question of pollution of the North Calder Water in the existing circumstances of scattered outfalls and industrial pollution is not serious.

Even, however, in the event of no new drainage works being carried out, it is desirable that means should be taken to prevent crude sewage pollution from the housing scheme outfall.

13. *Bellside, etc., Cleland*.—Again quoting from the report of 2nd May, 1933 :—

The proper disposal of the sewage from the areas outwith Cleland and Omoa Special Drainage District is still a necessity. Complaints of sewage pollution of the Tillan Burn and Swinstie Burn, as the committee are aware, have been frequent. The cost of a scheme is, of course, high, and employment in the district is unsatisfactory.

23. *Cambuslang*.—Complete purification of the sewage delivered at Threeneuk Sewage Purification Works has been recommended and the addition of filters at Eastfield Sewage Purification Works is desirable. There has been a large increase in the flow of sewage to both of these works in recent years, and the flow is still increasing.

31. *Leadhills*.—The committee are fully aware of the economic conditions of this area.

34. *Birkenshaw*.—There is no change. Expenditure in a general scheme of drainage and sewage disposal is perhaps not warranted.

37. *Bothwellhaugh*.—In view of the fact that schemes of sewage purification dealing with (1) the sewage of the Burgh of Hamilton, and (2) the large outfall from the Burgh of Motherwell and Wishaw at Logans, are under construction, with the completion of which the whole of the sewage from these Burghs discharging to the River Clyde will have been dealt with, the question of sewage disposal at Bothwellhaugh is brought into greater prominence, and, while the purification of the sewage is most desirable, the question of a site for works is abnormal on account of mineral subsidence and flooding.

38. *Carstairs Junction*.—Means for the proper treatment of the sewage from the outfalls from this area are still necessary.

39. *Gartcosh*.—As it has been found necessary to excise Gartcosh from the scheme originally designed to embrace Stepps, Chryston and Muirhead and Gartcosh, on account of unfavourable reports as to the mineral position, the question of the extension and improvement of the existing sewage purification works at Gartcosh will, no doubt, be considered.

40. *Newmains*.—The question of the enlargement of Crindledyke Sewage Purification Works is still of importance, especially in view of action taken to deal with other sources of sewage and industrial pollution of the South Calder Water, notably Shotts and Dykehead Special Drainage District.

41. *Newton and Flemington*.—It is understood that in designing the sewerage works for the northern area draining to the sewage purification works at Daldowie, now under construction, the ultimate linking up of sewage from this special drainage district, the treatment of which is unsatisfactory, has been kept in view by the County Drainage, &c. Engineer. The interception of this sewage, of which there is a large volume, would effect a great and necessary improvement.

43. *Carnbroe*.—In view of the extensive demolition of old property at Carnbroe, the necessity for drainage works is of less importance than formerly, as when all the houses to be demolished are dealt with there will be no existing modern houses in the area beyond the 26 comprising the housing scheme, the sewage from which discharges in a crude state to the North Calder Water. The position was reconsidered in the spring of last year, when the question of an interest with the Burgh of Coatbridge in the construction of sewage purification works at Brewsterford was raised by the Commissioner for Special Areas in considering a grant towards the cost of the works. The view was then expressed that there was no necessity for the County Council being concerned with the construction of the works, but that arrangements might be made for obtaining a connection to the Burgh's sewer and proposed works.

46. *Carstairs*.—In the current year complaint was made as to the polluted condition of the Flush Burn into which the sewage of Carstairs Village discharges after passing through a small tank, which is now inadequate for the proper disposal of the sewage. As a remedial measure, the open water course was cleaned out by the Local Authority, which action has meantime satisfied the complainers—the Board of Management of St. Charles' Institution, Carstairs House.

47. *Coalburn*.—The carrying out of proposals made by the County Drainage, &c. Engineer for dealing on one site with the sewage at present discharging to inadequate purification works situated respectively on the Coal Burn and Muir Burn, is desirable.

49. *Braidwood*.—There is no special urgency in the case of the drainage and sewage disposal arrangements for Braidwood Village, which is not within Braidwood Special Drainage District.

54. *Mollinsburn*.—A drainage scheme for this village is of no special urgency. A tank for the treatment of the sewage from the 12 houses recently erected by the Local Authority has been provided.

55. *Abington*.—The circumstances here, as formerly, are not pressing, although the provision of a small tank and filter was previously recommended.

56. *Crawfordjohn*.—In 1935, complaints received regarding the drainage outfall from part of Crawfordjohn Village were inquired into by a sub-committee of the Housing-Drainage Committee, who agreed that there was no ground for action on the part of the Local Authority. There is no urgency for a drainage scheme for the village.

57. *Newbigging*.—There is no urgency for a drainage scheme here.

It has to be noted that certain of the schemes carried out or arranged for are incomplete or now require further works. These are :—

Bothwellpark.—The arrangements for the disposal of the sewage from the Muirpark Rows area of this special drainage district are entirely unsatisfactory and have been the subject of complaint. New works are required to deal with the outfall, which discharges to a small stream named the Red Burn and thence to the North Calder Water at Douglas Support. It is

understood that it was found impracticable to convey the drainage from this area into the Uddingston, etc., sewers, and thence to Daldowie.

Bishopbriggs.—While the extensions agreed on were duly carried out, in view of the increased volume of sewage present and prospective to be dealt with, further extensions of the purification plant and sludge disposal works may at some future date be necessary. Improvements in the means of sludge disposal are being reported on by the County Drainage, etc. Engineer.

Cleland and Omoa.—Only temporary reconditioning of the filters at the sewage purification works was carried out.

Forth and Wilsontown.—The Wilsontown area is not included in the special drainage district of Forth for which complete sewage disposal works have been arranged. It may not, however, be necessary to disturb the existing arrangements for Wilsontown.

Larkhall.—The extensive sewage purification works in course of construction deal only with the River Clyde outfalls. Complaint has again been made as to pollution of the River Avon and the creation of nuisance conditions in the vicinity of the outfall from Merryton Sewage Purification Works. The outfall from Braehead Sewage Purification Works, which discharges to the River Avon at Millheugh, and also conveys untreated sewage from the lower-lying parts of Glengowan and Millheugh, is a source of pollution, and, to complete the sewage disposal arrangements, it is necessary that additional works should be undertaken at both of these outfalls.

I have taken these incomplete schemes into consideration in submitting a revised list, and have omitted the areas (with the exception of *Chapelton*) as to which the Drainage Committee previously decided the local circumstances were not such as to encourage expenditure on drainage works. I have also omitted *Wilsontown*.

Birkenshaw, Braidwood, Mollinsburn, Abington, Crawfordjohn, and Newbigging have been retained, as they were in the original list, but costly drainage schemes for these areas do not appear to be warranted meantime.

With these explanations, I now, as instructed, have to submit the list of areas or special districts in the County, arranged in order of urgency, in which drainage or sewage disposal works, or both, still require to be undertaken, carefully considered in light of present-day circumstances, as follows :—

Area or Special District.	Nature of Works.
1. Gartcosh,	Sewage Purification.
2. Calderbank,	Drainage & Sewage Purification.
3. Douglas,	Sewage Purification.
4. Larkhall (Avon outfalls),	Sewage Purification.
5. Newton and Flemington,	Sewage Purification.
6. Newmains,	Sewage Purification.
7. Coalburn,	Sewage Purification.
8. Carstairs,	Sewage Purification.
9. Carstairs Junction, ...	Sewage Purification.
10. Bothwellpark (Muirpark Rows),	Sewage Purification.
11. Bishopbriggs,	Sewage Purification.
12. Bellside, etc., Cleland, ...	Drainage & Sewage Purification.
13. Cleland and Omoa, ...	Sewage Purification.
14. Caldercruix and 'Glen-gowan,	Drainage & Sewage Purification.
15. Cambuslang,	Sewage Purification.
16. Bothwellhaugh,	Drainage & Sewage Purification.
17. Carnbroe,	Sewage Purification.
18. Crawford,	Drainage & Sewage Purification.
19. Leadhills,	Drainage & Sewage Purification.
20. Chapelton,	Drainage & Sewage Purification.
21. Ferniegair,	Drainage & Sewage Purification.
22. Birkenshaw,	Drainage & Sewage Purification.
23. Braidwood,	Drainage & Sewage Purification.
24. Mollinsburn,	Drainage & Sewage Purification.
25. Abington,	Sewage Purification.
26. Crawfordjohn,	Drainage & Sewage Purification.
27. Newbigging,	Drainage & Sewage Purification.

The report was considered by the Drainage Committee, who were informed that the total cost of the various schemes, where ascertained, was estimated at £312,690. On consideration, it was agreed at a

meeting held on 10th December, that while the report gave the order of urgency of the schemes at the date of the report, the relative urgency of the schemes was liable to be altered by change of circumstances, such as the possible building of houses at places such as Netherburn, or for other reasons. It was, therefore, further agreed that the matter should be discussed between the Drainage and Housing Committees.

Experimental Works for Treatment of Creamery Effluent.—It might be noted that the Drainage Committee had before them on 10th December a communication from the County Drainage, &c. Engineer with regard to the provision of experimental works for the treatment of creamery effluents, which might be provided with the co-operation of the Scottish Milk Marketing Board. The disposal of such effluents has given the local authority considerable concern, and the Engineer considered that the experimental works suggested could be put down at Lesmahagow as an extension of the sewage purification works in course of construction there. It was also considered that as the information obtained from experimental works would be of value, not only to this local authority, but to local authorities generally, or others interested in the disposal of creamery effluents, the Commissioner for Special Areas might be approached for financial assistance towards the cost of such works. It was agreed to do this after an estimate of the cost involved had been obtained.

Streams.

The inspections of streams numbered 1,026, and 554 samples were taken.

Reference is made in the following pages to streams regarding which complaint was made, and to the action taken in connection therewith.

Bothlin Burn.—Reference is made in previous reports to the question of trade and sewage pollution from Gartcosh Steel Works, and it was again raised, there being further correspondence in the matter, culminating in the following letters, dated 30th October, being sent to the County Clerk :—

(a) Trade Pollution.

I duly received your letter of the 29th ultimo, enclosing copy of letter, dated 26th September, received from Messrs. Smith & M'Lean, Limited, with regard to the question of disposal of acid-pickle effluent from Gartcosh Steel Works, situated within Gartcosh Special Drainage District. I have also

seen a copy of the County Drainage, &c. Engineer's letter to you, dated 1st October, on the subject, and have carefully gone into the question with the officials of this Department concerned. The position now appears to be, briefly, as follows :—

An acid-pickle effluent is produced at these works, which is discharged, indirectly, to the Bothlin Burn, and causes pollution or an irony discolouration of that stream. This condition has been complained of, and, within the last two years, efforts have been made to induce Messrs. Smith & M'Lean to adopt satisfactory preventive measures. They have gone into the matter, and, from their letter of 26th September, it would appear that they have been unable to find a remedy, although they say " There remains, however, another method of approach, which we are looking into." They also again raise the question of having the effluent taken into Gartcosh Sewage Purification Works, a course which, if possible, the local authority would no doubt agree to, with the necessary safeguards. This course it was thought might be possible in the large scheme of sewage purification originally prepared for Gartcosh, Chryston, and Steps. As, however, it has been found necessary to leave out Gartcosh from the proposed scheme, it is the Engineer's opinion that the acid-pickle trade effluent from the steel works cannot be taken into Gartcosh sewerage system. On the other hand, the opinion is held here that it is possible to satisfactorily treat the effluent at the steel works. The matter therefore seems to have come to a deadlock.

I think it would be unwise to simply prepare information, which would entail a large amount of fresh investigation, and ask the Department of Health for their consent to institute legal proceedings against Messrs. Smith & M'Lean, Limited, but suggest that the matter be submitted to the Department with a request that their officials concerned with the administration of the Rivers Pollution Prevention Acts inquire into the circumstances in the hope that they might be able to suggest reasonably practicable remedial measures. In the event of this suggestion being agreed to, a copy of the County Medical Officer's letter to you, and relative analyses, dated 16th May, 1934, might be sent to the Department.

(b) *Sewage Pollution.*

Referring to the County Medical Officer's letter to you, dated 16th May, 1934, and your letter of 11th July, 1935, in which you conveyed the information that Messrs. Smith & M'Lean hoped to carry out during the autumn of that year the reconstruction of the pipe which carries sewage from their works to Gartcosh Sewage Purification Works, I have to acquaint you that in view of delay in carrying out the work the Rivers Inspector has verbally from time to time raised the

question with Messrs. Smith & M'Lean, and that they have now promised to write to you inquiring as to what decisions with regard to Gartcosh drainage and sewage purification works have been made, and if they can now proceed with the work.

The suggestion contained in letter (a) was agreed to, and the Department's officers (Dr. Wylam and Mr. J. B. Paterson) accompanied by the County Council's officials, visited the steel works, etc., on 3rd December, and their conclusions and recommendation, as follows, is contained in a report of 19th December :—

Conclusions.—

(1) There is no doubt that there is some pollution of the Bothlin Burn by spent pickle liquor from the steel works at Gartcosh owned by Messrs. Smith & M'Lean.

(2) There is also pollution from the outfall of the Gartcosh Sewage Works, and it is admitted that these works are inadequate.

(3) A scheme is under construction for the treatment of the sewage from Stepps and Chryston. Originally it was intended to include Gartcosh in this project, but this has been abandoned owing, it is stated, to the danger of mineral subsidence.

Recommendation.—

We recommend that the possibility of including the Gartcosh Sewage in the Chryston and Stepps scheme should again be thoroughly explored. Having regard to the statement of Mr. Bryden that the route of the proposed sewer was largely over land owned by Messrs. Smith & M'Lean, where mineral subsidence is not to be anticipated, we recommend that the County Engineer should institute further inquiries. We consider that there is a possibility of the spent pickle liquor being dealt with at the sewage works of the joint scheme, but we make the above recommendation also from the public health point of view, for there is no doubt that the existing sewage works at Gartcosh are unsatisfactory.

Consideration of the matter was continued in the current year.

How Burn.—A complaint, alleging pollution of this stream from South Blair Colliery, was received. On inquiry, it was found that the stream was discoloured by pit water, but that there had been a defect in the coal-dross washings settling pond as a result of which pollution had occurred. Remedial measures had been taken just prior to the inquiries being made.

Light Burn, Carntyne.—A report by officers of the Department of Health as to representations made to them, alleging pollution of this

stream was transmitted for the observations of the local authority. In complying with this request the Rivers Inspector made inquiries and the Medical Officer of Health sent the following letter on the subject to the County Clerk on 19th May :—

I duly received yours of 27th ultimo, enclosing copy letter from the Department of Health in connection with the alleged pollution of the Light Burn in the Carntyne neighbourhood, together with copy of the enclosure therein referred to. I have had inquiries made in connection with the matter and beg to report as follows :—

- (1) The stream is polluted both north and south of Carntyne Road.
- (2) The piggery drainage entering the stream at Lightburn hamlet comes from two piggeries at present used, one owned by M'Ghee and the other, the larger of the two, by M'Intyre.
- (3) The drainage of the dwelling-houses at Lightburn also discharges to the stream.
- (4) All the drainage (piggery and domestic) passes through cesspools or tanks before discharge.
- (5) The stream is polluted north of Carntyne Road by drainage from Cranhill piggeries, owned by Letham, situated on the south bank of the Monkland Canal, and about three-quarters of a mile from Lightburn.

With regard to recommendation (1) in the report submitted to the Department, the estimated cost involved (£5,500), if the burn were covered in from the Glasgow-Edinburgh Road southwards, seems prohibitive. The annual valuation of the properties concerned at Lightburn is £126 2s. As to recommendation (2) (a) it has been ascertained from the County Sanitary Inspector that it would be possible to take the drainage of the Lightburn properties into a drain to be laid for a portion of 23 houses being built by Robert S. Chambers, Motherwell, on the strip of ground lying between Lightburn and the Glasgow-Edinburgh Road. This drain will connect with the Glasgow sewer in the Glasgow-Edinburgh Road. If an arrangement can be come to between the parties concerned, the interception of the drainage complained of, as indicated, would remove cause for complaint

of pollution from Lightburn. With regard to recommendation (2) (b), cautionary notices as to the depositing of solid refuse will be posted.

The suggestions made in this letter were concurred in by the Public Health Committee and a sub-committee inspected the stream and its sources of pollution on 29th June. Consideration of the whole matter was continued.

Mollin Burn and Luggie Water.—The County Medical Officer for Dunbartonshire complained on 8th September of the polluted condition of the Mollin Burn (a tributary of the Luggie Water), which is affected by effluent from Bedlay Colliery and Coke Ovens and By-products Plant. Special inquiries were made, and it might be explained that, while in all the circumstances the efforts made to prevent pollution of the burn meet with considerable success, there was room for improvement. The Mollin Burn is frequently inspected, and samples taken for analysis. One, taken on 15th September, at its junction with the Luggie Water, was found to contain 3.6 parts per 100,000 of suspended solids, 11.5 of phenols, and 1.0 of oil. One taken on 12th October immediately below the works, however, was found to be very unsatisfactory, containing 68.0 parts per 100,000 of suspended solids, 18.2 of phenols, and 3.0 of oil.

The preventive measures at the sources of pollution are, generally speaking, very complete. Spent ammoniacal liquor is discharged to mine workings; the solids in coke-quenching water are automatically recovered by dredging; coal-dross washings pumped direct from the silt-recovery tank appear to be satisfactorily disposed of in a ground hollow partly enclosed by debris bings; and coal-washings surface drainage is intercepted in settling ponds. No serious difficulty arises in maintaining these measures in satisfactory order. The interception of oil in the drainage from the area round about the benzol plant, however, presents considerable difficulty, and, for the purpose of intercepting this oil, the burn is baffled at numerous points, the collected oil being removed daily. In addition to the above sources of pollution large volumes of cooling water and pit water discharge to the burn. It is, therefore, impossible to keep the Mollin Burn "clean," especially in dry weather, when there is little water in the stream beyond what comes from Bedlay.

From the inquiries made it was believed that the recovery of oil from the burn may not have been so satisfactory after the death of

an old workman who did little else than attend to this work. However, this matter was taken up by the works manager, who also promised to carefully consider a view which has been before expressed by the Rivers Inspector, that if the oil-contaminated drainage referred to were conveyed across the burn to a pond which could be formed on the ground there, the interception of the oil (which is no doubt largely responsible for the amount of phenols shown in the burn water) would be much better effected. Means for eliminating suspended matter, which seemed to get into the burn in the handling of coal-washer dirt, and discolours the stream, were also to be considered.

Apart from the industrial and mining pollutions above referred to, it has to be noted that no means were taken to intercept solids in the drainage from sanitary conveniences at the works and pit-head. This defect was remedied.

Newton Burn.—Referring to the report for the preceding year, in which the question of pollution by acid-pickle effluent from Clyde Nail Works is referred to, it has now to be reported that as a result of the action then taken the Company wrote asking for permission to discharge the effluent to the special drainage district sewerage system, and, on inquiry by the County Drainage, &c. Engineer, as to the possible effect of the discharge on the existing sewage purification works or on any further treatment which might be provided for the drainage district, the matter was gone into from that aspect, and the Engineer advised by the County Medical Officer, on 31st March, as follows :—

The suggestion is to discharge acid-pickle liquors from three tanks at varying intervals—(1) a sheet-pickle tank of 394 gallons capacity once a week ; (2) a galvanising-pickle tank, also of 394 gallons capacity once a month ; and (3) a galvanising-pickle tank of 590 gallons capacity once in three weeks.

In addition, there is a lime tank in the sheet pickling department, of 400 gallons capacity, which is discharged once a fortnight.

The Chemist's report on the suggestion is as follows :—

The strength of the acid-liquor is stated to be 0·3 lbs. ferrous sulphate per gallon, which is equivalent to 210 grains per gallon, and, before discharging the effluents to the sewer it is proposed to dilute them 10 times with

burn water. To prevent damage which might arise through corrosive action, the liquors would require to be neutralised, and, although the free acid is stated to be .5 per cent., equivalent to 3.5 grains per gallon, it has to be remembered that this iron salt is an acid salt and must therefore also be neutralised. The amount of alkali required to neutralise iron salts in the above strength is 138 grains CaCO_3 per gallon. Water from the Newton Burn with which it is proposed to dilute the liquors has been found to contain 8.2 grains per gallon of available alkalinity, and, if this figure be multiplied by 10, it is evident that only 82 grains are available, whereas 138 grains are required. It therefore follows that to neutralise this amount of ferrous sulphate a dilution of 20 times is required. When iron salts are neutralised the iron is thrown out of solution and appears as reddish-brown flocculent matter in suspension. The amount of suspended matter which would be produced on a basis of 20 times dilution would be 15 grains per gallon.

It is also proposed to spread the discharge of the effluents from the three tanks over a considerable period of hours. Thus, the sheet-pickle tank discharge would be spread over 15 hours, a rate of 26 gallons an hour; the smaller galvanising-pickle tank over 42 hours on about 10 gallons an hour; and the larger galvanising-pickle tank also over 42 hours, or 14 gallons an hour. The solids would be removed from the lime tank before discharge.

From careful consideration of all the information submitted I agree with the opinion of the Chemist that the discharge of the effluent referred to, properly neutralised and containing the above amount of suspended solids, is not likely to have any effect on sewers or existing tanks or any further treatment works which might be provided for the drainage district, and I shall be glad if the necessary arrangements can be made as soon as possible for the admission of the effluents to the sewer. The effluents and diluent water could probably, I understand, be readily combined before discharge to the sewer in an existing chamber situated outside the sheet-pickling department.

On consideration of the question by the Drainage Committee, who also had before them information from the Engineer, it was agreed that the matter be continued for adjustment of the conditions and terms of payment for the facilities requested.

River Clyde.—On several occasions the surface of the River Clyde in the lower reaches of the river below Clyde Iron Works was observed to be carrying particles of what was ascertained to be granular slag,

which is recovered at these iron works for use in the manufacture of Portland cement. The material was also found on the edges of the river at considerable distances below the works. The attention of Messrs. Colvilles, Ltd., was drawn to the matter. It was not intended that the material, which is conveyed with the water flow from the iron works, should be carried into the river, but the method of prevention was unsatisfactory, and a promise was obtained that a definite method of interception would be provided in a proposed scheme of extension and re-organisation of the works. However, later in the year, it was found necessary to make further complaint in view of information obtained that the material referred to was actually causing serious inconvenience in the operating of dry-dock gates at Glasgow Harbour, and the firm were communicated with through the County Clerk. Thereafter improvement was effected by the provision of an intercepting chamber on the line of the work's outfall. This work was completed in the current year, but is only regarded as a measure to meet the conditions until it is possible to arrange for a fuller scheme of interception in connection with the work's extension above referred to.

Scion Burn, Burnside.—Referring to reports for preceding years, complaint was again made as to nuisance arising at an opening in the covered-in Scion Burn behind Blairbeth Road. The suggestion that the open portion referred to should be piped has not yet been carried out.

South Calder Water.—Reference is made at pages 193-197 to the action taken in connection with spent ammoniacal pollution from Shotts Iron Works.

Complaint was made by the owner of Allanton Old Mill as to silting of the upper mill dam by sewage sludge, etc., causing restriction of the water supply for the mill. Measures were taken to remove cause for complaint, and for regular examination and removal of any obstruction to the lade inlet. Later, further complaint was made, particularly as to silting of the lade itself and as to alleged damage to the mill turbine. This complaint was dealt with to the satisfaction of the complainer in the current year.

It should also be recorded that complaints were made by and on behalf of landed proprietors as to pollution of the South Calder Water, the agents for one of the complainers also sending a communication on the subject to the Secretary of State for Scotland,

In a letter to the County Clerk relative to this communication, and on the general question, information previously transmitted to him with regard to Shotts Iron Works was referred to, as well as the provision being made, by the construction of sewage purification works at Shotts, for the elimination of gross sewage pollution of the river. The position as to coal-dross washings pollution was also explained.

Reference is made in the section of the report dealing with trade pollutions (pages 186-200) to complaints concerning the following streams :—

Mouse Water (Wilsontown Ammonia, &c., Works),
 Park Burn (Wester Auchengeich Colliery),
 River Almond (Baton Colliery),
 Shotts Burn (Hirstrigg Colliery),
 South Calder Water (Shotts Iron Works),

and in the section dealing with Sewage Pollution (pages 201-206) to complaints concerning the undernoted streams :—

Bogton Burn (Hairmyres Colony),
 Dalzell Burn (Burgh of Motherwell and Wishaw),
 Flush Burn (Carstairs Drainage),
 Pow Burn (Bothwellpark Drainage),
 River Avon (Larkhall Drainage),
 River Clyde (New Lanark Drainage),
 River Nethan (Lesmahagow Drainage—Lesmahagow Creamery),
 Shotts Burn (Salsburgh Drainage).

COMMITTEE INSPECTION.—For the purpose of seeing and inquiring into some of the more important sources of pollution which had been brought to the notice of the Public Health Committee, a sub-committee made a tour of inspection on 29th June and inspected the following streams and sources of pollution :—

Bothlin Burn (Gartcosh Steel Works and sewage pollution) ;
 Light Burn, Carntyne area (Sewage pollution) ;
 River Mouse (Wilsontown Works) ;
 River Nethan (Sewage and Creamery effluents pollution) ;
 Robroyston Burn (Wester Auchengeich Colliery) ;
 South Calder Water (Bellshill, etc., sewage pollution) ;
 South Calder Water (Shotts sewage pollution).

SCOTTISH ADVISORY COMMITTEE ON RIVERS POLLUTION PREVENTION.—The observations of the County Council having been requested by the Department of Health on a recommendation contained in the Fifth Report (Rivers Almond and Avon, etc.) of the above Committee for improvement of the remedial measures at Dewshill Colliery, the below quoted letter, dated 17th January, was forwarded to the County Clerk, who, after consideration of the matter by the Public Health Sub-Committee, transmitted the observations contained in the letter to the Department. The Coltness Iron Company were also communicated with, and they observed that they considered their arrangements for dealing with the effluent from the coal washing plant at Dewshill gave satisfactory results, but that they had taken note of all the points raised, and that all necessary precautions would be taken to obviate any cause for complaint. The surface water referred to was diverted from the settling area as suggested, and, although the suggestion to form a deep settling pond was not acted on, the settling area was maintained in good order, and no cause for complaint was noted during the year :—

Referring to your letter of the 18th ultimo, enclosing copy of a letter received from the Department of Health asking for the observations of the County Council on the recommendation contained in the Fifth Report of the Scottish Advisory Committee on Rivers Pollution Prevention for an improvement in conditions at Dewshill Colliery, I have to state that I have carefully considered the recommendation referred to in relation to the preventive measures as at present existing at the colliery. I have also to report the result of a meeting which the Rivers Inspector had with the colliery manager (Mr. Halliday) on the ground on the 14th instant, when the question was fully discussed, having specially in mind the terms of the Advisory Committee's Report, a copy of which was given to Mr. Halliday.

At this meeting the Rivers Inspector pointed out at the outset that it was most desirable that, if possible, the wishes of the Advisory Committee and Department of Health should be met, and that it had to be admitted that some pollution, mostly of a slight nature, of the Barbauchlaw Burn headstream occasionally occurred from the outlet from the settling area, usually in connection with the regulation of the height of the sluice boards at the outlet. There being agreement on these points, the question of improvement was considered.

It might be again explained that the settling area on the north and north-west is open to the moorland, and to the east and south is banked, on the east, by washer dirt, and for part of the long south side, also by washer dirt, but for most

of its length on this side by more or less non-porous earth. The effect of closing up the outlet solid with the rest of the bank was considered, and the view was expressed that as in wet weather the settling area collects a large amount of surface water from the ground to the north and north-west, there would be considerable danger of the southern bank of the area giving way if the relief afforded by the present outlet were done away with. This point having been disposed of, it was suggested that the surface water referred to might be intercepted by ditches and diverted from the settling area, and that a deep settling pond, perhaps half the size of the present settling area, might be formed with washer dirt. The surface water excluded, this pond would receive the pumped coal-dross washings only, and would, there is every reason to believe, produce a uniformly satisfactory effluent by filtration through the washer-dirt banks of the pond. At Dewshill Colliery the pit debris and washer dirt are disposed of on one refuse bing, but by a mechanical arrangement in the haulage, the washer dirt is not taken to the top, but is tipped a short distance up the slope of the bing so that it can be conveniently handled for heightening the bank of the settling area, and would be similarly convenient in the continuous formation of a fully enclosed settling pond as suggested. The manager looked favourably on these suggestions, although the diversion of the surface water would involve some outlay and a little difficulty. It might be noted that the part of the settling area not utilised in the formation of the suggested pond could probably be used for an additional pond or ponds as required.

It was impressed on Mr. Halliday that it was most desirable that cause for complaint, even for complaint of instances of minor intermittent pollution, should be obviated, and he was informed that a report of the meeting, embodying the suggestions made for improvement to this end, would be conveyed to the Coltness Iron Company, with whom, and with the Department of Health, as necessary, you will no doubt communicate.

CHEMICAL LABORATORY.

WALTER BROWN, F.C.S.

The number of samples analysed or examined during the year amounted to 3,936.

The following table shows for each year since 1925 the number of samples analysed :—

SAMPLES EXAMINED IN THE CHEMICAL LABORATORY CLASSIFIED
ACCORDING TO ADMINISTRATIVE AUTHORITY UNDER WHICH THEY WERE
OBTAINED.

Year.	Rivers Pollution.			Public Health Department.		Food and Drugs.	Total.
	Sewage Works.	Trade Effluents.	Streams.	Water Supplies.	Special.		
1925	14	413	757	83	116	829	2,212
1926	61	331	696	30	217	978	2,313
1927	96	659	1,083	47	301	1,586	3,772
1928	115	696	1,195	45	933	1,691	4,675
1929	53	713	1,004	46	4,592	1,337	7,745
1930	44	663	1,026	36	1,564	1,813	5,146
1931	39	744	943	61	981	2,785	5,553
1932	98	516	824	72	1,181	2,487	5,178
1933	55	454	889	78	1,434	2,416	5,326
1934	48	435	941	77	1,434	2,321	5,256
1935	36	343	895	87	1,213	2,306	4,880
1936	36	219	524	73	1,114	1,970	3,936

Samples of Sewage.

SEWAGE WORKS.—36 samples from the following sewage purification works :—East Kilbride, 18 ; Westthorn, 4 ; Salsburgh, 4 ; Overtown, 3 ; Chapelhall, 3 ; Larkhall Merryton Outfall, 2 ; Bishopbriggs and Hawick, one sample each.

Samples of Trade Effluents.

219 samples were examined from the following sources :—

Effluents.	Samples.
Coal Washers,	175
Pit Waters,	21
Paper Mills,	16
Fireclay Works,	3
Quarries,	3
Iron Works,	1

Streams.

524 samples of water, of which 35 were examined for evidence of sewage pollution and 489 specially for trade waste impurities.

Streams Affected by Sewage Pollution.—River Clyde, 20 samples ; Avon at Larkhall, 4 ; Bogton Burn, Hairmyres, 2 ; Glenside Drive, Burnside, 2 ; Dalzell Burn, 2 ; Gain Burn, Rumbling Syke, Glenboig Burn, Poniel Water, and Field Drain at New Stevenston, one sample each.

Streams Affected by Trade Effluents.—The following table gives the number of samples, the source of pollution affecting same, and the number of samples of effluent examined :—

Streams.	No. of Samples.	Affected by	No. of Samples.
River Clyde,	—	Blantyre Ferme Colliery, ...	3
" "	—	Broomside Colliery, ...	16
River Clyde,	—	Priory Colliery, ...	2
and Priory Ditch,	2		
and Rotten Calder,	4		
River Clyde,	—	Bothwell Castle Colliery, ...	—
and Nameless Stream,	3		
River Mouse,	42	{ Wilsonstown Colliery, ...	14
		{ Wilsonstown Pit Water, ...	1
River Almond,	5	Muiracre Colliery, ...	1
" "	22	Hassockrigg Colliery, ...	11
" "	14	{ Baton Colliery, ...	8
		{ Baton Colliery Pit Water, ...	1
" "	5	Benhar Colliery Pit Water, ...	2
North Calder,	1	Glengowan Print Works, ...	—
" "	12	Caldercruix Paper Mills, ...	9
" "	8	Moffat Paper Mills, ...	7
North Calder,	3	Stepends Colliery, ...	4
and Stepends Ditch,	7		

Streams.	No. of Samples.	Affected by	No. of Samples.
North Calder,	1	Rosehall Colliery,	—
South Calder,	19	Shotts Iron Works,	—
South Calder,	2	Shotts Gas Works,	—
South Calder,	—	{ Kingshill Colliery,	11
and Kingshill Ditch,	26		1
South Calder,	1	Northfield Colliery,	—
Auchter Water,	6	Royal George Colliery,	3
Barbauchlaw Burn,	10	{ Dewshill Colliery,	7
			1
Blind Burn,	2	Stane Colliery,	1
Bothlyn Burn Head Stream,	14	Cardowan Colliery,	4
" " " "	—	Mossrigg Colliery,	2
Bothlyn Burn,	5	Gartcosh Iron Works,	—
and Gartcosh Ditch,	1		—
Bothlyn Burn,	9	Auchengeich Colliery,	4
Meikle Burn,	3	Cadzow Colliery,	—
Coal Burn,	4	Dalquhandy Colliery,	2
Broomfield Ditch,	3	Broomfield Colliery,	4
Dalzell Burn,	—	Excelsior Iron Works,	1
and Whinney Burn,	1		1
Divoty Burn,	2	Quarter Colliery,	1
and Quarter Burn,	3		1
Garrion Burn,	12	{ Castlehill Colliery,	6
			4
Gateside Burn,	3	Gateside Colliery,	—
Glenboig Burn,	10	Gartverrie Quarry,	3
" " " "	—	Glenboig Fireclay Works,	3
How Burn,	4	{ Barblues Colliery,	2
			1
How Burn,	10	{ South Blair Colliery,	5
			2
Douglas Water,	6	{ Douglas West Colliery,	4
and Kennel Burn,	4		4
Douglas Water,	6	Douglas Colliery,	3
Mollin Burn,	9	Bedlay Colliery,	—
and Luggie Burn,	5		—
Mill Burn,	22	{ Cornsilloch Colliery,	11
and Cornsilloch Ditch,	4		2
Muir Burn,	3	Auchlochan Colliery,	2
" " " "	1	Auchlochan No. 9 Pit Water,	1
Newton Burn,	2	Clyde Nail Co.,	—
Luggie Head Stream,	16	{ West Cameron Colliery,	5
			1
Earnock Burn,	1	Earnock Colliery,	2

Streams.	No. of Samples.	Affected by	No. of Samples.
Park Burn, ... and Blantyre Ditch, ...	5 } 8 }	Blantyre Colliery, ...	1
Pow Burn, ...	9	Viewpark Colliery, ...	5
Ravel Burn, ...	3	Tannochside Colliery, ...	—
" " ...	6	Bredisholm Colliery, ...	—
Robroyston Burn, ... and Park Burn, ...	29 } 5 }	Wester Auchengeich Colliery, ...	9
Shirrel Burn, ...	7	Holytown Colliery, ...	—
Shotts Burn, ...	39	{ Hirst Colliery, ... Hirst Pit Water, ...	16 1
Spittal Burn, ... and Rotten Calder, ...	2 } 1 }	Bardykes Colliery, ...	1
Whorley Burn, ...	6	Mauldslie Mine, ...	3
Thankerton Ditch, ...	3	Thankerton Colliery, ...	—
Woodhall Ditch, ...	3	Woodhall Colliery, ...	—
Carnbroe Ditch, ...	2	Burgh of Airdrie, ...	—
Rumbling Syke, ...	1	Shields Colliery Pit Water, ...	1
Pomillon Burn, ...	1		
Dykehead Ditch, ...	1		

Water Supplies.

73 samples of water were analysed, 57 from public supplies and 16 from private sources.

Public Supplies.—Camps Reservoir, 52 samples, and supply at Thorntonhall, 5 samples.

Private Supplies.—Bankhead Farm, Lanark, 4 samples; Brown Muir, Strathaven, 2; Burn on Carstairs Estate, 2; Annfield Cottage, Eddlewood; Woodend, Carnwath; Corehouse Farm, Sandilands; Glenmill Cottage, New Monkland; Killalees Farm, Kirkmuirhill and Horse Trough, Millheugh, Larkhall, 1 sample each; Motherwell Swimming Pond, 2 samples.

Food and Drugs.

1,970 samples were analysed, consisting of the following:—

	No. Examined.	No. not Genuine.
Sweet Milk, ...	1,396	51
Mince, ...	419	14
Sausage Meat, ...	70	—
Whisky, ...	27	—

	No. Examined.	No. not Genuine.
Butter,	15	—
Cream,	11	—
Skimmed Milk,	4	—
Apples,	3	—
Condensed Milk Full Cream, ...	3	—
Vanilla Essence,	3	—
Sugar,	3	—
Condensed Skim Milk,	2	—
Bread,	2	—
Cream of Tartar,	2	—

and one sample from each of the following :—Steak, honey, orange peel, tartaric acid, chicken roll, vinegar, baking powder, raisins, pepper, and virol and milk.

Milk of Hygienic Quality.

385 samples were examined, consisting of the following grades :—

Certified,	33
Tuberculin Tested,	336
Grade A or Standard,	13
Pasteurised,	3

15 of these samples did not contain the required amount of butter fat.

Special Samples.

Total, 729. Milk, 614 samples, 201 of these being samples of milk as supplied to school children, and 413 samples specially taken by the Sanitary Inspectors.

Burgh samples of milk, 8 ; sand, 5 ; breast milk, 4 ; fumes at burning bings, 4 ; floor cleaning material, 2 ; Berina food, 1 ; water, 1 ; varnish stain, 1 ; ammonia, 18 ; pine disinfectant, 1.

Institution Supplies.—70 samples, consisting of the following :—Sausages, 24 ; soft soap, 13 ; soap powder, 9 ; butter, 5 ; bread, 5 ; mince, 4 ; XX Pale Soap, 3 ; and one sample each of suet, rice, coffee, ground rice, kia-ora squash, lemon crush, and vanilla. Samples not conform to schedule :—soft soap, 2 ; sausage, 1.

167½ gallons of distilled water were supplied to various County Departments during the year.

BACTERIOLOGICAL LABORATORY.

T. GOW BROWN, M.B., Ch.B., D.P.H.

The following table shows the total number of specimens dealt with since 1920, and the sources of supply :—

Year.	Specimens.	Sources of Supply.					
		Med. Pract.	P.H. Staff.	Hosp. Staff.	Sch. Med. Staff.	Vet. Surgeons.	Slaugh. Staff.
1920	9,162	3,075	1,205	4,483	90	302	7
1921	10,409	3,118	1,794	5,139	67	285	6
1922	9,702	3,108	2,475	3,803	41	243	31
1923	10,485	3,294	2,062	4,785	84	241	19
1924	11,030	3,537	2,280	4,936	70	189	18
1925	11,193	3,758	2,495	4,517	56	357	10
1926	17,327	6,472	2,769	7,232	49	796	9
1927	19,331	6,382	3,759	8,097	33	1,053	7
1928	21,059	6,051	3,472	10,525	74	934	3
1929	23,296	7,285	4,079	10,301	55	1,564	12
1930	28,589	9,047	5,388	12,362	22	1,768	2
1931	26,761	8,380	5,731	10,715	114	1,814	7
1932	25,796	7,226	5,975	10,857	28	1,699	11
1933	28,861	7,532	4,738	14,846	28	1,707	10
1934	33,097	7,568	4,781	19,045	15	1,682	6
1935	34,318	7,284	4,453	20,686	9	1,881	5
1936	41,935	7,358	5,486	27,315	13	1,759	4

Typhoid Fever.

909 specimens were examined.

		Agglutination Test.		Blood Cultures.		Faeces.		Urines.	
		+	o	+	o	+	o	+	o
Medical Practitioners—									
County,	...	16	67	—	—	1	20	—	13
Burghs,	...	10	53	—	1	4	37	—	18
Hospital Physicians,		81	53	10	37	11	147	2	125
Public Health Staff,		8	77	—	—	3	59	—	56
		115	250	10	38	19	263	2	212

Diphtheria.

Swabs were examined for *B. diphtheriae* in 14,897 instances.

				Throat.		Nose.	
				+	o	+	o
Medical Practitioners—County,	...			286	1,921	16	45
„ „	Burghs,	...		311	1,116	9	20
Hospital Physicians,	...	...	...	1,041	6,243	446	2,072
Public Health Staff,	...	...	...	51	1,187	34	99
				1,689	10,467	505	2,236

Of the primary swabs examined in direct smear preparation, 94 gave positive results.

The biological test for virulence of the diphtheria bacillus was applied in 152 cases with 21 positive results.

Cerebro-Spinal Meningitis.

30 specimens were examined for the presence of the meningococcus, with positive results in 6 cases.

Venereal Diseases.

Syphilis.—1,588 specimens were submitted to the Wassermann test for Syphilis, and gave the following results:—

					Blood.		C.S.F.	
					+	o	+	o
Medical Practitioners—County,	...	...	...	...	47	262	2	6
„	„	Burghs,	...	...	113	439	—	1
Hospital Physicians,	...	...	...	...	124	510	1	—
Public Health Staff,	...	...	...	...	5	76	1	1
					—	—	—	—
					289	1,287	4	8

Treponema Pallidum.—4 specimens were examined with no positive findings.

Gonorrhoea.—277 specimens were examined.

						Smeared.	
						+ o	
Medical Practitioners—County,	...	...	...	...	...	49	77
" " Burghs,	...	...	...	...	...	23	52
Hospital Physicians,	...	...	...	...	...	3	56
Public Health Staff,	...	...	...	...	...	3	14
						78	199

Ophthalmia Neonatorum.—199 specimens were received and examined, with the following results:—Gonococci, 2; staphylococci, 35; "diphtheroid" bacilli, 44; pneumococcus, 13; streptococci, 1; no organisms, 104.

Miscellaneous Specimens.

Vaccines.—64 were prepared, 59 being for medical practitioners.

Vincent's Angina.—7 specimens were examined with negative results.

Puerperal Fever.—215 blood cultures were examined. Streptococci were recovered in 32 cases.

Urine for Albumen.—131 specimens gave 68 positive results.

Faeces for Dysentery.—128 specimens gave 17 positive results.

Swabs for Haemolytic Streptococci.—12,284 specimens gave 765 positive results.

Others.—The other miscellaneous specimens included pus and urine for pathogenic bacteria; blood films for malaria and other blood diseases; hairs for ringworm; foodstuffs for the food-poisoning group of organisms; and potable and bath waters.

Specimens from Animals.

Milk for Tubercle.—2,175 samples of milk were received from various Veterinary Inspectors and the Public Health Staff, of which 54 were found positive by microscopic examination, and 70 by biological examination, making a total of 122 positive samples.

Cow Sputum.—53 specimens were examined, and acid-alcohol-fast bacilli were found in 19.

			Milk.			Cow Sputum.		Others.	
			+	o		+	o	+	o
			Biolo- Smear. gical.						
County, ...	...	...	54	68	1,950	19	34	9	5
Other Areas,	...	...	—	2	101	—	—	—	—
			54	70	2,051	19	34	9	5

The above samples of milk were also examined for other organisms (streptococci, etc.), with 211 positive results.

Anthrax.—12 specimens were submitted by the County Veterinary Inspector, and all were positive.

Scabies.—5 specimens were examined, and gave 2 positive results.

Others.—In 227 specimens examined, 73 positive results were found—organisms, 65; tubercle, 8.

Bacterial Content of Milk.—The results of the examination of 1,114 samples are classified as under :—

COUNTY AREA.

From 1st January, 1936, to 31st September, 1936.					Certified Milk.	Grade "A" (TT) Milk.	Grade "A" Milk.	Pasteurised Milk.	Grade "A" (Past.) Milk.	Ordinary Milk.	Sterilised Milk.
Under 5,000 bacteria per c.c.					14	81	2	3	3	25	—
Over 5,000 and	„	10,000	„	„	7	78	1	1	—	37	—
„	10,000	„	„	20,000	„	„	5	112	4	1	—
„	20,000	„	„	30,000	„	„	2	31	—	1	—
„	30,000	„	„	100,000	„	„	2	56	1	—	83
„	100,000	„	„	200,000	„	„	1	18	—	—	26
Over 200,000					1	38	—	—	—	38	1
Totals,					32	414	8	6	4	324	1
Coliform bacillus present,					6	88	—	2	1	146	1

From 1st October, 1936, to 31st December, 1936.					Certified Milk.	Tuberculin Tested Milk.	Standard Milk.	Pasteurised Milk.	Ordinary Milk.			
Under 5,000 bacteria per c.c.,					...	8	16	—	2	8		
Over 5,000 and	„	10,000	„	„	...	5	25	1	1	10		
„	10,000	„	„	20,000	„	„	...	1	2	20		
„	20,000	„	„	30,000	„	„	...	—	20	2	10	
„	30,000	„	„	100,000	„	„	...	1	23	1	—	31
„	100,000	„	„	200,000	„	„	...	3	4	—	—	7
Over 200,000					„	„	...	—	4	—	—	7
Unsuitable,					...	...	...	...	—	—	—	2
Totals,					...	18	130	5	5	95		
Coliform bacillus present,					...	...	...	5	25	1	1	47

OTHER AREAS.

From 1st January, 1936, to 31st September, 1936.					Certified Milk.	Grade "A" (TT) Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.,				...	1	8	—	—	5
Over 5,000 and	"	10,000	"	...	—	1	—	—	5
"	10,000	"	20,000	"	...	—	—	—	3
"	20,000	"	30,000	"	...	2	—	—	1
"	30,000	"	100,000	"	...	2	1	—	4
"	100,000	"	200,000	"	...	1	—	—	1
Over 200,000				"	...	—	—	—	—
Totals,				...	1	14	1	—	19
Coliform bacillus present,				...	...	2	—	—	9

From 1st October, 1936, to 31st December, 1936.					Certified Milk.	Tuberculin Tested Milk.	Standard Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.,				...	1	3	—	1	1
Over 5,000 and	"	10,000	"	...	—	3	—	—	—
"	10,000	"	20,000	"	...	4	—	—	—
"	20,000	"	30,000	"	...	4	—	—	6
"	30,000	"	100,000	"	...	3	1	—	5
"	100,000	"	200,000	"	...	—	—	—	1
Over 200,000				"	...	1	1	—	2
Totals,				...	1	18	2	1	15
Coliform bacillus present,				...	...	—	—	—	8

Destruction of Rats.

490 bottles of rat virus were supplied, free of charge on application, to farmers, householders, shopkeepers, etc.

COUNTY HOSPITAL

NEAR

MOTHERWELL

REPORT BY THE PHYSICIAN-SUPERINTENDENT
JOHN REID, M.D., D.P.H., F.R.F.P.S.

1936.

At the beginning of the year 133 patients were in residence. Throughout the year 2,036 were admitted, making a total of 2,169. Of these, 1,803 were discharged recovered or improved, 158 died, and 208 were in hospital at the end of the year. The total admissions were 225 greater than for 1935.

SCARLET FEVER admissions were 450, or 5 more than the previous year. The type remains mild, and the death-rate was practically the same as last year. The infectivity rate was increased by 0.5 per cent. The average residence was increased by approximately 1 day. The complication rate and the corrected diagnosis rate were slightly lower than for the previous year.

During 1935 swabs for haemolytic streptococci were taken before dismissal from the throats of scarlet fever patients in order to determine their relationship to "return" cases. No case dismissed with haemolytic streptococci in the throat infected a "return" case as far as could be determined. Throughout the present year nasal swabs were also taken from scarlet fever dismissals. Two of the "infecting" cases had positive nose swabs on discharge from hospital. From the work of two years it would appear that taking swabs from the throat and nose of scarlet fever dismissals is not worth the trouble. In the two years, 44 positive throat, 17 nasal, and 2 ear swabs were discharged. As far as it could be determined only 2 of those cases gave rise to "return" cases.

DIPHTHERIA admissions were 495, or 151 more than for the previous year. On the whole, the type of disease was milder than in the previous year. The cases classified as severe were 7.3 per cent., as compared with 15.8 per cent. for 1935. Towards the end of the year an exacerbation of diphtheria occurred in the Blantyre area. In

PRINCIPAL STATISTICS.

IN-PATIENTS.

1. TOTAL NUMBER OF ADMISSIONS,	2,036
2. TOTAL NUMBER OF PATIENTS DISCHD. RECD., ...	1,803
3. TOTAL NUMBER OF DEATHS,	158
4. FATALITY RATE, per cent.,	8
5. AVERAGE DURATION OF STAY OF PATIENTS (included in 2 and 3 above), days,	30·3
6. NUMBER OF BEDS OCCUPIED :—	
(a) Average during year,	164
(b) Highest (on 24th November, 1936),	248
(c) Lowest (on 15th August, 1936),	104
7. NUMBER OF SURGICAL OPERATIONS :—	
Under General Anaesthesia,	131
Other Operations,	618
8. TOTAL PATIENT DAYS,	59,418

OUT-PATIENTS.

9. TOTAL OUT-PATIENTS SEEN :—	
Venereal Diseases,	445
X-ray Department,	1,492
Ear, Nose and Throat,	178
10. TOTAL ATTENDANCES :—	
Venereal Diseases,	6,213
X-ray Department,	1,769
Ear, Nose and Throat,	369

Scarlet. Diphtheria. Puerperal. Erysipelas. Pneumonia.

Admissions, ...	450	495	109	79	356
Recovered, ...	375	245	71	59	167
Died,	5	14	10	1	58
Fatality rate %, ...	1·3	5·4	12·3	1·6	25·7
Complications %, ...	35·2	10	34·5	16·6	27·1
Revised diagnoses %, ...	13	42·9	26·3	20	38·3
Av. residence in days, ...	41·1	34·9	37·8	24·2	30·3

the cases from this area several died in spite of large doses of anti-toxin. Others exhibited abnormally slow pulses for long periods. 3.0 per cent. of the total proved cases showed laryngeal involvement, and in 2 only was operative procedure necessary. The corrected diagnosis rate was 42.9 per cent. as compared with 43.1 per cent. for the previous year. The fatality rate has declined from 7.2 per cent. to 5.4 per cent. The average amount of serum given was 19,100 units as compared with 31,400 units for the previous year.

ENTERIC FEVER.—Twenty-eight cases were admitted as compared with 48 for the previous year. The cases were sporadic, mild in type, and 16 of the verified cases were infected with paratyphosus B.

PNEUMONIA admissions were 356, or 51 in excess of the previous year's figures. The fatality rate was 25.7 per cent. of the verified cases, or approximately 2 per cent. less than for the previous year. Fifteen patients were more or less moribund on admission and died within 48 hours. The corrected diagnosis rate was 38.3 per cent. Quite a number of the cases notified as pneumonia were without chest signs and the true cause of the disability perfectly evident.

TUBERCULOSIS work is still chiefly confined to the induction of pneumothorax with periodic refills. The other odd cases comprise meningeal cases and patients sent for diagnosis.

PUERPERAL SEPSIS.—The number of admissions was 109, or 18 less than for the previous year. The fatality rate was 12.3 per cent. as compared with 16.6 per cent. for the previous year. The severe cases were, however, 8 per cent. less than for the previous year, and the day of disease was 0.6 days more than in 1935. This year the corrected diagnosis rate was 26.3 per cent. as compared with 18.6 per cent.

Notes for Practitioners.—Although the Pyrexia Regulations have resulted in the earlier admission to hospital of puerperal sepsis cases, the morbidity and mortality rates are still high. As the practitioner's work is largely preventive, a few simple suggestions, all of which are easy of application, might tend to reduce the incidence of puerperal sepsis.

(1) **Postural Drainage.**—After childbirth there is normally a profuse flow of secretion from the uterine cavity. If the various

parts of the genital tract are not kept clear, the secretions will be retained and inflammation may supervene. In a considerable number of the cases admitted to hospital the bladder and lower bowel are distended, and a large subinvolved uterus tends to fill with exudate. This is further enhanced when the patient is kept in the prone position after delivery and during the early puerperium. Many of those patients, coming into hospital early, with a temperature of 102° or 103° F., after the bladder is emptied, the bowel cleared out, a catheter inserted into the uterus, and kept in the sitting position, are much improved within 48 hours with a rapid drop in temperature.

Suggestion (a).—Place the patient in the sitting-up position and keep her in that position as soon after delivery as possible. With an intelligent nurse there should be no difficulty in maintaining the position.

(2) Anaemia.—The relationship of pre-natal anaemia to puerperal sepsis is definitely established. A very large proportion of the patients admitted to hospital suffer from varying degrees of anaemia. Puerperal sepsis produces secondary anaemia, and, from time to time, cases of puerperal sepsis die with a blood count under a million.

Suggestion (b).—That more attention be given to anaemia of pregnancy, and that more use be made of the facilities provided by the Local Authority for investigating those cases.

Under the section on puerperal sepsis, some extracts are quoted from an investigation undertaken by Dr. Hendry, late senior assistant, which was submitted for an M.D. thesis.

(3) Para-aminophenylsulphonamide.—Last year it was announced that a synthetic dye compound, under the name "Prontosil," had been discovered bactericidal for haemolytic streptococci in the blood stream. In a leading article in the *British Medical Journal*, Vol. I, page 79, 1937, it is stated that the promised value of this treatment (Prontosil or para-aminophenylsulphonamide) in streptococcal infections alone bids fair to place it among the major therapeutic discoveries of modern times. After a considerable amount of experimental work, a steady stream of clinical reports, many from Germany, but including that of Colebrooke and his collaborators from Queen Charlotte Hospital, all testify to its efficacy in the human subject. So far, the chief reports of the value of sulphonamide, as the substance is more conveniently

termed, have been on the treatment of puerperal sepsis. Other conditions, like scarlet fever, erysipelas, and throat conditions due to haemolytic streptococcus, all offer abundant clinical material for trial. Although our own figures are too small to quote, we have had up-to-date five cases of puerperal septicaemia and one of general peritonitis which are thought to have recovered with treatment by Prontosil.

An important point, from the practitioner's point of view, is the ease of administration. Most of the preparations are given in tablet form by the mouth.

Suggestion (c).—That practitioners might try the remedy in prophylaxis, such as in cases of gross tearing and abnormal interference.

Preparations to choose from :—

Preparation.	Route.	Dose.	Maker.
Prontosil soluble.	Intramuscular.	5-10 c.c. t.i.d.	Bayer.
Prontosil album.	Oral tablets.	2-3 t.i.d.	Bayer.
Sulphonamide.	Oral tabloids.	6-10 per day p.c.	B.W. & Co.
Streptocide.	Oral tablets.	4-6 t.i.d.	Evans.
Proseptasine.	Oral tablets.	2 t.i.d., p.c.	Pharmaceutical Specialities.

References.—Lancet, 5th December, 1936, page 1,319.

Lancet, 6th June, 1936, page 1,279.

British Medical Journal, 9th January, 1937, page 79.

ERYSIPELAS.—79 cases were admitted, or 22 in excess of last year's number. The percentage of severe cases was 15, as compared with 8.8. The only fatal case was a male, admitted dying from cardiac disease, with a mild erysipelas. Ultra-violet light was used throughout the year in treatment. In spite of the difficulties of assessing the true value of any form of treatment in a disease like erysipelas, from three years' experience we are quite satisfied that light has a definite value in treatment.

VENEREAL DISEASES.—The indoor work is chiefly confined to children, female gonorrhoeas, and complicated male cases. 108, or

exactly the same number as for the previous year, were admitted to the wards. The outdoor attendances were increased by 415 for the year. Of 28 eye cases, 22 were simple ophthalmias. Only 3 babies suffered from gonococcal ophthalmia.

RADIOLOGICAL WORK.—1,769 cases were photographed. The large proportion of this work is for tuberculosis dispensaries and sanatoria. Later, tables give details of the work and the centres from which the patients are drawn.

The number of admissions from *all diseases* was greatest in the month of November, when 210 patients were admitted. For the weeks ending 18th April and 21st November, 58 were recorded, and the greatest number admitted on any one day was 16 on 18th April and 7th July. The average daily number resident was 164, or 20 more than for 1935. The greatest number resident on any one day was 248, on 24th November, and the smallest, 104, on 15th August.

The average duration of residence of all cases was 30·3 days ; of recovered cases, 31·8 days ; and of fatal cases, 12·5 days.

The fatality rate, calculated on all cases discharged, was 8 per cent., or 1 per cent. less than for 1935. This figure includes all cases dying in hospital. Eighteen died within 24 hours of admission. A post-mortem examination was performed in 63·2 per cent.

Request for removal of patients to hospital was made by the medical attendant in 32·3 per cent. of the cases, and by the Public Health Department in 67·6 per cent.

REVISED DIAGNOSES.—In 572 cases, or 29·1 per cent. of the total discharges, the diagnosis on admission was revised. The figures for the principal diseases were :—Scarlet fever, 13 per cent. ; diphtheria, 42·9 per cent. ; puerperal sepsis, 26·3 per cent. ; erysipelas, 20 per cent. ; venereal diseases, 47·2 per cent. ; and pneumonia, 38·3 per cent.

ACCOMMODATION.—Although the total admissions were increased from the previous year by 225, overcrowding in the wards has not been excessive, due largely to the diminished incidence of scarlet fever. This relieved the diphtheria accommodation in the latter part of the year, when diphtheria was prevalent.

GROUND AND BUILDINGS.—Much repair work was undertaken by the County Works Department. Repainting the whole of the outside of the buildings was commenced in the autumn, but was not completed by the end of the year.

SCARLET FEVER.

At the beginning of the year 34 patients were in residence, and 450 were admitted as scarlet fever. The diagnosis was revised in 57, and 7 others proved to be cases of scarlet fever. Of these 434 patients, 375 were discharged well, 5 died, and 54 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out within the first three days of illness in 65·7 per cent.

THE AVERAGE DAY OF DISEASE in all cases was 3·3 days, and 2·6 days in the fatal cases.

THE AVERAGE DURATION OF RESIDENCE of all cases was 41·1 days ; of recovered cases, 41·5 days ; and of fatal cases, 10·8 days. The following table indicates the period of residence of the 375 recovered cases :—

Week of Discharge.	No. of days in residence when Discharged.								No. of Cases in each day.								No. of Cases in each week.
Under fifth,	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	23	
Fifth,	...	29	30	31	32	33	34	35	13	16	29	19	31	35	21	164	
Sixth,	...	36	37	38	39	40	41	42	17	20	10	5	9	11	6	78	
Seventh,	...	43	44	45	46	47	48	49	9	3	5	5	10	6	3	41	
Eighth,	...	50	51	52	53	54	55	56	3	2	4	1	3	4	3	20	
Ninth,	...	57	58	59	60	61	62	63	3	4	1	1	4	2	2	17	
Tenth,	...	64	65	66	67	68	69	70	3	2	—	—	1	1	—	7	
Over ten wks,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	
Total Number of Cases, 375																	

TYPE OF DISEASE.—329, or 86·5 per cent., of the total discharges were classified as mild ; 47, or 12·3 per cent., as moderately ill ; and 4, or 1 per cent., as very severe. In the last group 2 were toxic cases.

THE FATALITY RATE, as calculated on the discharges, was 1·3 per cent.

Of the 5 fatal cases, 3 were males and 2 females. The average age was 4·7 years; the average day of disease, 2·6 days; and the average residence, 10·8 days. Two mild cases died from acute nephritis. Three severe cases died from broncho-pneumonia, one of which went on to a streptococcal empyema. One toxic case, included in the severe group, was admitted in a dying condition.

CORRECTED DIAGNOSES.—Of the cases notified as scarlet fever, 57, or 13 per cent., were wrongly diagnosed. These were:—Albuminuria, 1; chronic cardiac disease, 1; diphtheria, 1; doubtful, 14; enteritis, 1; erythema, 2; measles, 3; negative, 12; otitis media, 1; positive swab (*B. diphtheria*), 1; rhinitis, 7; septic sores, 1; septic tonsils, 5; sore throat, 5; tuberculosis, 1; whooping cough, 1.

CASES WHICH PROVED TO BE SCARLET FEVER on observation were admitted to hospital as:—Diphtheria, 5; meningitis, 1; puerperal fever, 1.

COMPLICATIONS.—134, or 35·2 per cent., of the cases discharged had one or more complications.

Glands.—53, or 13·9 per cent., of the cases discharged showed glandular enlargement. These were:—Non-suppurative adenitis, 51; suppurative adenitis, 2. All degrees of glandular involvement are included.

Ear.—16, or 4·2 per cent., developed otitis media. 1 was moist on dismissal. 4 cases developed mastoiditis, one of which was dismissed with a small discharging sinus.

Heart.—In 10 patients transient murmurs occurred. In 2 endocarditis resulted, 1 of which had also a pericarditis. In addition, arrhythmia was noted in 3 and tachycardia in 1.

Nose.—20, or 5·2 per cent., developed rhinitis.

Joints.—In 8, or 2·1 per cent., transient arthritis was present.

Kidney.—8, or 2·1 per cent., had true nephritis, and 9 albuminuria.

Lungs.—Bronchitis, 3 ; broncho-pneumonia, 4 ; streptococcal empyema, 1.

Eye.—Blepharitis, 1 ; conjunctivitis, 3 ; dacryocystitis, 1.

Skin.—Dermatitis, 1 ; secondary erythema, 1.

Sepsis.—Abscesses and septic sores, 11 ; paronychia, 6.

Others.—Enteritis, 1 ; positive swab (diphtheria bacilli), 23 ; sore throat, 1 ; tonsillitis, 5 ; vaginitis, 1.

Other Conditions present on Admission.—Adenitis, 30 ; albuminuria, 2 ; anaemia, 2 ; blepharitis, 3 ; bronchiectasis, 1 ; bronchitis, 1 ; broncho-pneumonia, 2 ; burns, 3 ; cardiac disease, 3 ; chronic otitis media, 5 ; chronic psoriasis, 1 ; ichthyosis, 3 ; nephritis, 1 ; old infantile paralysis, 1 ; old osteomyelitis, 1 ; pityriasis, 1 ; positive Wassermann, 1 ; rhinitis, 28 ; scabies, 3 ; sebaceous cyst, 1 ; septic sores, 1 ; tubercular glands, 2 ; uraemia, 1.

The two following tables show the age-periods and week of illness at which the complications occurred :—

AGE.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COMPLICATIONS.		Rhinitis.	Mastoiditis.	Arthritis.	Nephritis.
	Suppurative.	Non-Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
Under 1 Year,	—	—	—	—	—	—	—	—	—	—	—
-2 Years,	—	2	1	—	—	—	—	1	—	—	—
-3 „	1	—	1	—	—	—	—	2	—	—	—
-4 „	—	9	2	1	—	—	1	7	2	—	3
-5 „	1	7	—	—	1	—	—	1	—	—	—
-6 „	—	8	—	2	—	—	1	3	—	—	—
-7 „	—	4	2	1	—	—	3	2	1	—	—
-8 „	—	3	—	1	—	—	—	—	—	1	1
-9 „	—	3	—	—	—	—	1	2	—	1	2
-10 „	—	2	—	1	—	1	1	1	—	—	—
-15 „	—	5	1	1	—	1	2	1	1	4	2
-20 „	—	4	—	—	—	—	1	—	—	1	—
Over 20 „	—	4	1	—	—	—	—	—	—	1	—
Total,	2	51	8	7	1	2	10	20	4	8	8

WEEK OF ILLNESS.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COM- PLICATIONS.					
	Suppurative.	Non- Suppurative.	Left	Right	Double.	Organic.	Functional.				
First, - -	—	8	2	2	—	—	—	5	—	1	—
Second, - -	1	17	3	1	—	—	—	2	—	3	—
Third, - -	1	17	2	2	—	—	5	4	—	2	5
Fourth, - -	—	6	1	1	—	—	—	1	1	—	2
Fifth, - -	—	3	—	—	—	—	1	5	2	1	1
Sixth, - -	—	—	—	1	—	—	3	—	—	1	—
Seventh, - -	—	—	—	—	—	1	1	2	—	—	—
Eighth, - -	—	—	—	—	1	—	—	—	1	—	—
Ninth, - -	—	—	—	—	—	—	—	1	—	—	—
Tenth, - -	—	—	—	—	—	1	—	—	—	—	—
Total, - -	2	51	8	7	1	2	10	20	4	8	8

SCARLET FEVER ANTITOXIN.—Throughout the year 80 patients received, on an average, 7,000 units of antitoxin intramuscularly. As serum was given chiefly to the ill cases and often late in the disease, the comparison with the non-serum cases is not comparable. On the whole the percentage of complications was greater in the serum-treated cases, and the duration of residence was 2 days more.

DIPHTHERIA ANTITOXIN.—30 patients had, on an average, 6,400 units. 25 of these cases had scarlet fever antitoxin in addition to diphtheria antitoxin.

MIXED INFECTIONS.—Chickenpox, 5 ; erysipelas, 1.

CROSS INFECTIONS.—3 patients were incubating chickenpox and 3 others were cross infected.

“ RETURN ” CASES.—28 days is taken as the period within which a case is regarded as a “ return.” In the following figures, cases which proved on observation not true scarlet fever have been disregarded. 15 cases discharged from hospital presumably infected 20 others. Of the “ infecting ” cases, 1 had albuminuria, 1 otitis media, 3 positive swabs (diphtheria bacilli), 1 rhinitis, and 1 transient murmur while in hospital. The others were apparently “ clean ” cases. 3 of the “ infecting ” cases had antitoxin while in hospital. The average duration of residence of the “ infecting ” cases was 43 days.

The throat swabs for haemolytic streptococci were negative on discharge from all the "infecting" cases. 12 of the "infecting" cases had a nasal swab examined before dismissal, and of these 2 were positive.

One of the "infecting" cases had a history of long standing rhinitis. The swab from the nose had been persistently positive, and, although the nose was dry on discharge, a haemolytic streptococcus could still be grown.

The infectivity rate was 4 per cent. of all true cases discharged.

SWABS FROM THROAT AND NOSE OF SCARLET FEVER PATIENTS ON DISMISSAL.—Of 375 throat swabs examined for haemolytic streptococci, 24 were positive. 348 nasal swabs were taken, and 17 were positive.

Summary of the more important statistics relating to scarlet fever during the past six years:—

	1931.	1932.	1933.	1934.	1935.	1936.
Number of scarlet fever patients discharged recovered, ...	712	1,081	1,184	872	397	375
Number of presumably infectious cases discharged, ...	4	28	33	32	14	15
Infectivity rate, ...	0.56	2.5	2.7	3.6	3.5	4
Number of deaths from scarlet fever, ...	2	10	7	9	5	5
Fatality rate, ...	0.28	0.9	0.5	1.02	1.2	1.3
Average duration in days of the cases discharged, ...	36.4	40.1	36.5	40.5	40.2	41.1

SCHICK TEST IN SCARLET FEVER.

AGE PERIODS.

	1	2	3	4	5	6	7	8	9	10	Over 10	Total.
Positive, ...	3	17	21	20	25	18	12	11	9	7	22	165
Negative, ...	2	10	13	7	21	21	11	8	11	11	57	172
Total,...	5	27	34	27	46	39	23	19	20	18	79	337

Twenty-four of the susceptibles were fully immunised with toxoid-antitoxin floccules and 52 with alum precipitated toxoid, while 87 were discharged before completing immunisation.

PROPHYLAXIS IN OTHER DISEASES.

Children admitted to hospital suffering from other diseases, like measles, whooping cough, pneumonia, etc., as far as possible had the Dick Test performed, and the susceptibles were immunised.

Of 273 cases, 25 were positive, and of these 1 was fully immunised against scarlet fever.

DIPHTHERIA.

At the beginning of the year 34 patients were in residence, and 495 were admitted as diphtheria. The diagnosis was revised in 195, and 2 others proved to be cases of diphtheria. Of these 336 patients, 245 were discharged well, 14 died, and 77 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out within the first three days of illness in 63·7 per cent. of the cases.

THE AVERAGE DAY OF DISEASE of all cases was 3·4 days, and 3·3 days in the fatal cases.

DURATION OF RESIDENCE.—The average duration of residence of all cases was 34·9 days; of recovered cases, 36·1 days; and of fatal cases, 14·1 days. One of the fatal cases died within 24 hours of admission and 1 within 48 hours.

TYPE OF DISEASE.

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

SITE OF MEMBRANE.	MILD.		MODERATE.		SEVERE.		TOTAL		Percentage of Total Cases.
	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.	
Faucial, - - -	196	—	36	—	4	10	236	10	94·9
Laryngeal, - - -	4	—	1	—	1	—	6	—	2·3
Faucial and laryngeal, -	—	—	1	—	—	1	1	1	0·7
Faucial and nasal, -	—	—	2	—	—	3	2	3	1·9
	200	—	40	—	5	14	245	14	—

The classification of the disease is according to the site of the membrane and the degree of toxæmia. In the mild cases the membrane or exudate was small and unaccompanied by toxæmia ; in the moderate group the membrane was more extensive and the toxæmia considerable ; and in the severe type the membrane was extensive and the toxæmia profound.

Bacteriological cases and those with deposits of mucus due to other organisms are excluded from the figures.

FAUCIAL DIPHTHERIA (246 or 94·9 per cent.).—A comparison with the figures of the previous year shows an increase of 15·6 per cent. in the mild group, a decrease of 10·7 per cent. in the moderate group and 4·9 per cent. in the severe group. Of the total faucial cases, 79·6 per cent. were mild, 14·6 per cent. moderate, and 5·6 per cent. severe. Serum was administered previous to admission in 22 cases. The average quantity given in hospital was 18,800 units, or 9,100 units less than in the previous year. The average dose of antitoxin in the mild group was 10,600 units ; in the moderate group, 32,500 units ; and in the severe group, 97,700 units. Eleven cases had, on an average, 7,500 units of scarlet fever antitoxin. Complications were noted in 23 patients. Paralysis developed in 18 patients, and 40 had serum after-effects. The fatality rate in the pure faucial cases was 4 per cent. as compared with 3·7 per cent. for the previous year.

LARYNGEAL DIPHTHERIA (6 or 2·3 per cent.).—In 6 patients the larynx was solely involved. The disease was mild in 4, moderate in 1, and severe in 1. Tracheotomy was performed in the one severe case. The average amount of serum administered was 14,000 units. All the patients recovered without complications.

FAUCIAL AND LARYNGEAL DIPHTHERIA (2 or 0·7 per cent.).—Of the 2 patients in this group, 1 recovered and the other, in whom intubation was performed, died from broncho-pneumonia. The average amount of serum given was 18,000 units.

FAUCIAL AND NASAL DIPHTHERIA (5 or 1·9 per cent.).—Two patients were moderately ill, and 3 severe cases died. The average amount of serum given was 37,600 units. In addition, 4 patients had scarlet fever antitoxin. Two of the severe cases died from cardiac paralysis.

DIPHTHERITIC PARALYSIS.—Eleven, or 4·2 per cent., of the clinical cases developed one or more forms of paresis. The varieties were :—

Cardiac, 4 (fatal) ; cardiac and palatal, 1 (fatal) ; legs, 1 ; palatal, 2 ; palatal and pharyngeal, 3 (2 fatal).

COMPLICATIONS.—Twenty-six, or 10 per cent., of the cases developed one or more complications. This figure does not include serum after-effects. These were:—Albuminuria, 5 ; arrhythmia, 3 ; bradycardia, 1 ; broncho-pneumonia, 2 ; carrier (persistent), 3 ; myocarditis, 2 ; otitis media, 3 ; paralysis, 11 ; paronychia, 1 ; rhinitis, 1 ; suppurative adenitis, 1 ; tachycardia, 1 ; vaginitis, 2.

OTHER CONDITIONS PRESENT ON ADMISSION.—Adenitis, 5 ; albuminuria, 6 ; anaemia, 1 ; cardiac disease, 1 ; chronic otitis media, 2 ; chronic rhinitis, 3 ; dermatitis, 1 ; mastoid sinus, 1 ; tubercular glands, 2.

MIXED INFECTIONS.—One patient was incubating measles on admission. As convalescent measles serum was available, no cross infection occurred.

ANTITOXIN.—In 24, or 9·2 per cent., serum had been given before admission to hospital. The average in all cases was 19,100 units ; in recovered cases, 16,100 units ; and in fatal cases, 70,300 units. The amounts are considerably lower than for the previous year. In 19 patients the serum was given intravenously and intramuscularly, and in 5 by the vein alone.

After-effects.—Forty-two, or 16·2 per cent., developed serum rashes. Forty were urticarial, 1 morbilliform, and 1 erythematous. Collapse occurred in one case after intravenous serum, and in another joint pains.

SCARLET FEVER ANTITOXIN.—Sixteen patients had, on an average, 7,500 units of scarlet fever antitoxin. In 6 instances urticarial rashes were noted.

CORRECTED DIAGNOSES.—195, or 42·9 per cent., of the cases discharged were wrongly diagnosed:—Adenitis, 1 ; bronchitis, 1 ; chronic otitis media, 1 ; dermatitis, 1 ; foreign body in nose, 1 ; large tonsils, 6 ; laryngitis, 12 ; measles, 3 ; negative, 30 ; nephritis (acute), 1 ; pneumonia, 2 ; positive swab, 49 ; retro-pharyngeal abscess, 1 ; rhinitis, 12 ; scarlet fever, 5 ; septic naso-pharyngitis, 6 ; septic tonsils, 37 ; sore throat, 18 ; sublingual cellulitis, 1 ; tonsillar abscess, 3 ; tonsillitis, 3 ; whooping cough, 1.

VIRULENCE TESTS.—In 27 bacteriological cases, where a virulence test was performed, 23 proved avirulent and 4 virulent.

FATALITY RATE.—Fourteen, or 5.4 per cent., of the clinical cases were fatal.

FATAL CASES.—Of the 14 fatal cases, 8 were males and 6 females. The average age was 8 years; the average duration of disease prior to admission was 3.3 days; and the average duration of residence in hospital was 14.1 days. Two patients were admitted moribund, 1 dying within 24 hours and the other within 48 hours. The average dose of serum was 70,300 units. No case had serum before admission.

OPERATIVE TREATMENT.—Tracheotomy was performed in 1 case with recovery, and intubation in 1 who died from broncho-pneumonia.

TREATMENT.—In addition to antitoxin, glucose and continuous saline were used in the toxic cases.

DICK TEST.

Diphtheria cases had the Dick Test performed as a routine, and the susceptibles were immunised. Of 387 notified cases, 118 were positive. Twenty-two were fully immunised and 85 were partially immunised against scarlet fever before dismissal.

AGE-PERIODS.

												Over	Total.
												10	
		1	2	3	4	5	6	7	8	9	10	10	
Positive,	...	—	6	12	16	14	10	18	10	9	5	18	118
Negative,	...	3	7	7	12	20	25	26	27	22	19	101	269
Total,	...	3	13	19	28	34	35	44	37	31	24	119	387

ENTERIC GROUP.

Throughout the year 28 patients were notified as enteric fever. The diagnosis was revised in 9, and 4 others proved to be cases of enteric fever. Of these 23 patients, 17 recovered, 3 died, and 3 were in hospital at the end of the year.

SEX.—Male, 10; female, 10.

THE AVERAGE AGE was 22·9 years. Four were under 10 years of age, 7 between 11 and 20 years, 4 between 21 and 30 years, 3 between 31 and 40 years, 1 between 41 and 50 years, and 1 over 50 years of age.

REMOVAL TO HOSPITAL was carried out during the first week of illness in 6, or 30 per cent. ; during the second week in 11, or 55 per cent. ; during the third week in 2, or 10 per cent. ; and during the fourth week in 1, or 5 per cent.

THE AVERAGE DAY OF DISEASE was 10·1 days, and the average residence, 37·6 days.

FATALITY RATE.—Three, or 15 per cent., were fatal. Two of the fatal cases were notified as pneumonia, and 1 other was transferred from Bellshill Hospital with a septic abdominal wound after Caesarean section.

TYPE OF DISEASE.—The infection was true typhoid in 4 and paratyphoid B. in 16. The disease was mild in 14 ; moderate, 3 ; severe, 3.

Table showing type of disease and time of admission to hospital :—

Week of Illness.	Mild.		Moderate.		Severe.				Total Cases and Week of Illness.	
					Recovered.		Died.			
	No. of Cases.	Per-centage.	No. of Cases.	Per-centage.	No. of Cases.	Per-centage.	No. of Cases.	Per-centage.	No. of Cases.	Per-centage.
First	4	28·5	—	—	—	—	2	66·6	6	30·0
Second	7	50·0	3	100·0	—	—	1	33·3	11	55·0
Third	2	14·2	—	—	—	—	—	—	2	10·0
Fourth	1	7·1	—	—	—	—	—	—	1	5·0
TOTAL	14	70·0	3	15·0	—	—	3	15·0	20	

COMPLICATIONS.—Cystitis, 1; erythema, 1; haematuria, 1; malaena, 1; septic abdominal wound, 1.

CORRECTED DIAGNOSES.—Duodenal ulcer, 1; influenza, 1; negative, 2; positive Widal, 5.

OTHERS WHICH PROVED TO BE OF THE ENTERIC GROUP on observation were admitted to hospital as :—Dysentery, 2; pneumonia, 2.

PUERPERAL SEPSIS.

At the beginning of the year 19 patients were in residence, 109 were admitted as puerperal sepsis or pyrexia, and in 29 the diagnosis was revised. Of these 99 cases, 71 recovered, 10 died, and 18 were in hospital at the end of the year.

TYPE OF DISEASE.—Mild, 51; moderate, 12; severe, 18.

Of the 81 cases, the infection was localised in the uterus in 57; 15 were septicaemic; 2 had pelvic cellulitis; 6 thrombosis of veins; and 1 pyelonephritis.

THE AVERAGE AGE of the patients was 29·3 years; 5 were under 20 years of age, 15 between 21 and 25 years, 31 between 26 and 30 years, 15 between 31 and 35 years, 9 between 36 and 40 years, and 6 were over 40 years of age.

THE AVERAGE DURATION OF ILLNESS of all cases prior to admission was 4·8 days; of recovered cases, 4·7 days; and of fatal cases, 5 days.

THE AVERAGE DURATION OF RESIDENCE was 37·8 days; of recovered cases, 40·5 days; and of fatal cases, 18·7 days.

ATTENDANCE AT BIRTH.—Doctor, 3; midwife, 23; doctor and midwife, 37; hospital cases, 14; nil, 4.

HOSPITAL AND OTHER AUTHORITY CASES.

	Hospital Cases.			Other Authorities.		
	Recovered.	Died.	Total.	Recovered.	Died.	Total.
Airdrie, ...	3	2	5	6	—	6
Bellshill (County),	4	2	6	—	—	—
Coatbridge, ...	—	—	—	4	3	7
Dunbartonshire,	—	—	—	2	—	2
Hamilton, ...	3	—	3	6	—	6
Total, ...	10	4	14	18	3	21

Note.—Bellshill is the County Maternity Hospital. Three Coatbridge Burgh cases were sent from Airdrie Maternity Hospital.

COUNTY OF LANARK CASES.—60. 53 recovered, 7 died. These figures include the cases from the County Maternity Hospital, Bellshill.

THE FATALITY RATE was 12·3 per cent. In the hospital cases it was 28·5 per cent., and in cases delivered at home 8·9 per cent.

COMPLICATIONS AT BIRTH.—Abnormal tearing, 16 ; abortion, 7 ; breech, 2 ; induction of labour, 1 ; instrumental delivery, 29 ; miscarriage, 1 ; placenta praevia, 1 ; prematurity, 1 ; retained placenta, 3 ; still birth, 3 ; subinvolution, 1 ; vesico-abdominal fistula, 1.

OTHER CONDITIONS PRESENT AT BIRTH OR ON ADMISSION.—Abscess, 1 ; anaemia, 17 ; bronchitis, 4 ; chronic renal disease, 1 ; cystitis, 1 ; endocarditis, 3 ; facial paralysis, 1 ; hepatitis, 1 ; herpes, 1 ; laryngitis, 2 ; pelvic abscess, 1 ; pelvic cellulitis, 1 ; phlegmasia, 2 ; positive Wassermann, 1 ; pulmonary tuberculosis, 1 ; pyelitis, 1 ; retention of urine, 1 ; tonsillitis, 1 ; tubercular hip, 1 ; varicose veins, 1.

NUMBER OF PREGNANCY at which disease occurred :—

Pregnancy.	No. of Cases.		Instrumental Delivery.	
	Recovered.	Died.	Recovered.	Died.
1	27	8	15	6
2	13	1	2	—
3	14	—	3	—
4	3	—	1	—
5	4	—	—	—
6	3	—	2	—
8	2	—	—	—
9	2	—	—	—
10	—	1	—	—
11	1	—	—	—
12	2	—	—	—
Total,...	71	10	23	6
	81		29	

COMPLICATIONS DURING THE FEVER.—Abscesses, 6 ; adenitis, 2 ; anaemia, 7 ; cystitis, 2 ; dermatitis, 1 ; general peritonitis, 2 ; mastitis, 2 ; myocarditis, 1 ; nephritis, 1 ; pelvic abscess, 1 ; pelvic cellulitis, 3 ; phlegmasia, 8 ; pleural effusion, 1 ; puerperal insanity, 1 ;

pulmonary thrombosis, 1; scarlet fever, 1; secondary post-partum haemorrhage, 1; sore throat, 1; thrombo-phlebitis, 1.

CORRECTED DIAGNOSES.—Twenty-nine, or 26·3 per cent., were wrongly diagnosed:—Abortion, 1; arthritis, 1; cancer of uterus, 1 (fatal); cardiac disease, 1 (fatal); mastitis, 8; negative, 2; parotitis, 1; pelvic cellulitis, 5; phlebitis, 1; phlegmasia, 1; pneumonia, 2; pyelitis, 1; scarlet fever, 1; secondary anaemia, 1 (fatal); sub-involution, 1; tuberculosis, 1.

BLOOD CULTURES.—Of 89 blood cultures taken, 13 were positive—haemolytic streptococci, 9; *B. coli*, 4.

ANAEROBIC CULTURES.—Of 84 anaerobic cultures, 11 were positive—haemolytic streptococci, 9; *B. coli*, 2.

WASSERMANN TEST.—Ten were positive, 8 doubtful, and 86 negative.

THROAT CULTURES.—Haemolytic streptococci, 9; streptococcus viridans, 1; negative, 72.

CERVICAL CULTURES.—Haemolytic streptococci, 25; negative, 54.

POST-PUERPERAL CONDITIONS, arising after a month from confinement, are not included in the true puerperal figures. These were:—Paraplegia, 1; pelvic cellulitis, 5; phlebitis, 2; phlegmasia, 4; suppurative mastitis, 21.

COUNTY MATERNITY HOSPITAL CASES.—Seventeen patients delivered or treated in the County Maternity Hospital were admitted either directly or later from their home after discharge from hospital.

Bellshill Hospital direct, 6; Calderbank House, 1; Roadmeetings Hospital, 1; from patient's home, 9.

Disease proved—Puerperal sepsis, 6; phlegmasia, 2; phlebitis, 1; pyelitis, 1; mastitis, 5; cellulitis, 1; malignant disease, 1.

TREATMENT.—The general lines of treatment throughout the year were:—Postural drainage aided by intra-uterine injection of glycerine and proflavine. In severe cases glucose, saline, and transfusion were used extensively. Patients with severe anaemia were treated with

large doses of iron and arsenic, and 12 cases of profound anaemia had blood transfusions. Towards the end of the year a few cases had the new preparation—Prontosil.

Extracts from Dr. Hendry's thesis on—

A STUDY OF PUERPERAL SEPSIS WITH PARTICULAR REFERENCE
TO ANAEMIA AS A CLINICAL FEATURE AND BLOOD TRANS-
FUSION AS A THERAPEUTIC MEASURE.

That a very severe anaemia may accompany puerperal sepsis is no new observation, and it is mentioned in most of the older textbooks. Although in recent years, a considerable amount of study of a productive nature has been applied to anaemia in general, including anaemia of pregnancy, no contribution has appeared dealing with the anaemia of puerperal sepsis.

THE AETIOLOGY OF ANAEMIA IN PUERPERAL SEPSIS.—The anaemia associated with puerperal sepsis may be the continuance of a pre-existing anaemia, or it may be produced by the sepsis itself. A detailed study of these two factors is desirable.

1. *Pre-existing Anaemia*.—This may be further subdivided into anaemia before, during or after pregnancy.

A. *Anaemia before Pregnancy*.—It has been pointed out that, during reproductive life, women frequently suffer from a progressive anaemia of a hypochromic nature. Recent work has shown that this may be of two types :—

- (a) The type originally described by Wits, and frequently associated with his name. It is accompanied by defective secretion of hydrochloric acid in the stomach, and is referred to by Wits as "Simple achlorhydric anaemia."
- (b) Davidson and his co-workers, in a very thorough investigation into the diet of the poorer classes in Aberdeen, have found that the iron content is very much below the minimum requirements of the body, and they have shown that a nutritional anaemia is very prevalent in women, particularly during the reproductive period.

B. *Anaemia during Pregnancy*.—This has been the subject of a considerable amount of work in the past few years. The majority

of the workers agree that the most important of this group of anaemias is one of hypochromic nature, similar to, but more severe than those seen in women apart from pregnancy.

Strauss and Castle have shown that, during pregnancy, the secretion of hydrochloric acid in the stomach is frequently diminished, and that this is directly associated with the degree of anaemia occurring, because, as has been shown by Mettler and Minot, iron is best absorbed from an acid medium. This hypochlorhydria usually clears up after parturition, but Davies and Shelley, studying a series of cases where the anaemia dated from a previous pregnancy, found that in some cases, particularly in women with many pregnancies, the hypochlorhydria persists and the anaemia gradually merges into the achlorhydric anaemia of Witts. In a series of cases during pregnancy, they found that the presence of a normal gastric juice was associated with the absence of anaemia.

Deficiency of the diet and the demands of the foetus also play a considerable part in the production of this anaemia. Fullarton, however, has shown that the iron loss from menstruation in 18 months is as great as that lost to the foetus, at parturition, and during lactation. He believes that pregnancy alone seldom produces a severe anaemia, unless previously existent, in which case it might become more obvious by physiological hydraemia. Smallwood, however, believes that this so-called physiological anaemia of pregnancy seldom reduces the haemoglobin level below 80 per cent.

The other types of anaemia associated with pregnancy, such as the so-called Pernicious Anaemia of Pregnancy and the Tropical Megalocytic Anaemia, are rarely seen in this country.

C. Anaemia from Haemorrhage at Parturition.—Although haemorrhage is mentioned as a cause of anaemia in pregnancy in most of the works quoted, it is passed over without further discussion. Wide variations in blood loss at parturition occur, however, and, if excessive, severe hypochromic anaemia will result.

It is thus obvious that many patients may suffer from anaemia before the onset of puerperal sepsis. Indeed, it has been stated that the presence of anaemia may predispose to the occurrence of sepsis, and Witts states that anaemic patients are particularly unresistant to streptococcal infections.

11. *Anaemia occurring as part of Puerperal Sepsis.*—In 1919, Sir William Osler pointed out that severe anaemia frequently occurs in association with puerperal sepsis, and at that time he stated that it was an anaemia not sufficiently recognised or studied. In the works referred to on anaemia of pregnancy, although puerperal sepsis is mentioned by some of the writers as one of the causes, all dismiss the subject without further discussion.

Puerperal sepsis, however, may produce anaemia or further accentuate a previously existing one, and it would appear to do so in two ways.

A. *Hypochromic Anaemia associated with Sepsis.*—In most of the works on anaemia, sepsis is mentioned as one of the factors having an inhibitory effect on haemopoiesis. It is believed to be of a partially aplastic nature, but little is known as to its exact aetiology, and most writers are content to state that it improves when the sepsis has been eradicated, and that large doses of iron are required to maintain a satisfactory blood picture in such cases.

B. *Haemolytic Anaemia of Bacterial Origin.*—Haemolytic anaemia associated with the bacillus Welchii is mentioned by Vaughan, but she makes no mention of the possibility of blood destruction *in vivo* by the toxins of the haemolytic streptococcus. Dyke makes no mention of it either, and though it is mentioned by Davidson and Cappell and M'Cluskie, no comments are offered. Witts, discussing the subject in general, states that it is exceedingly uncommon for ordinary streptococci to cause haemolytic anaemia, but that anaerobic streptococci, such as are often responsible for puerperal sepsis, are more potent. He gives first place to the bacillus Welchii, but classes gas gangrene and puerperal sepsis as the only two infections in which the occurrence of haemolytic anaemia due to the direct action of the bacterial toxins, is not uncommon. He qualifies this with a warning, however, that anaemic patients are very unresistant to infection, especially by streptococci, and states that many mistakes have been made in attributing anaemia to the infection where a more complete history would have shown that the infection was the complication or termination of a pre-existing idiopathic anaemia.

Lea states that the average loss of red cells varies from 200,000 to 1,000,000 per week, and in some instances the count may be reduced to 1,500,000 or even as low as 500,000 per c.mm. Emery states that

a loss of 50,000 corpuscles per c.mm. and 2.5 per cent. haemoglobin may be expected per diem.

SUMMARY.—The foregoing discussion shows that many factors are at play, independently or together, in producing the anaemia associated with puerperal sepsis. The most important of these may be tabulated thus :—

PRE-EXISTING ANAEMIA :

Before Pregnancy—

Achlorhydric Anaemia of Witts.

Nutritional Iron Deficiency Anaemia.

During Pregnancy—

Hypochromic Anaemia from

Deficient absorption of iron.

Dietary deficiency in iron.

Increased demands of the foetus.

Other rare forms of Anaemia in pregnancy.

After Pregnancy—

Anaemia from ante-partum or post-partum haemorrhage.

ANAEMIA AS PART OF PUERPERAL SEPSIS :

Aplastic Anaemia—

Associated with sepsis in general.

Haemolytic Anaemia—

From haemolysis by the toxins of the streptococcus haemolyticus.

A close study of this summary shows that there are really only two fundamental causes of the pre-existing anaemia, namely, dietary deficiency, in some cases aggravated by achlorhydria, and haemorrhage at parturition. For the anaemia occurring during the infection, there are also two types, an aplastic and a haemolytic type. This grouping of the causes will be used in the subsequent discussions.

OBSERVATIONS ON THE BLOOD IN 106 CASES ON ADMISSION.

In the previous section, the aetiological factors producing the anaemia in puerperal sepsis were discussed. When the cases are

admitted to an isolation hospital, however, the anaemia is present, and frequently it is impossible to deduce from the history available which of these factors have been at play in its production. This section is, therefore, devoted to a study of the incidence and severity of the anaemia as present on admission, and an attempt made to correlate it with any relevant information available, and to ascertain if it has any prognostic significance. The course of the anaemia throughout the disease will be studied in a later section.

INCIDENCE AND SEVERITY OF ANAEMIA ON ADMISSION.

In 106 cases where the blood was examined on admission, varying degrees of anaemia were found, the haemoglobin percentage varying from 23 to 90. In Table 8, the cases have been grouped according to the degree of anaemia present, judged both by the cell count and the haemoglobin percentage. The groups rise by half-million steps from one million to four million for the cell count, and from twenty to eighty per cent. by ten per cent. steps for the haemoglobin. The groups at either end show the number of cases above and below these limits. The percentage of cases in each group is also shown.

TABLE 8—SHOWING THE INCIDENCE AND SEVERITY OF ANAEMIA ON ADMISSION.

R.B.C. Millions.	—1	1-1·5	1·5-2	2-2·5	2·5-3	3-3·5	3·5-4	4 & over
Haemoglobin %	—20	21-30	31-40	41-50	51-60	61-70	71-80	80 over
Cases in R.B.C. group,	0	6	14	16	22	18	14	16
Cases in haemoglobin group, ...	0	12	17	17	31	11	11	7
% Cases in R.B.C. group,	0	5·6	13·2	15·1	20·8	17	13·2	15·1
% Cases in haemoglobin group, ...	0	11·3	16·1	16·1	29·2	10·4	10·4	6·6

Percentage of cases under 3 million=54·7

" " 2 " =18·8

" " 60% =72·6

" " 40% =27·3

TABLE 9—*Continued.*

Cause of Anaemia.					Number of Cases.	
<i>Brought forward,</i>					...	15
<i>Nutritional—</i>						
Post-partum, ...	...	...	...	...	7	
Post-abortum, ...	...	...	...	...	2	
Total, ...					—	9
<i>Others—</i>						
Addison's, ...	...	...	...	...	1	
Chronic Nephritis, ...	...	...	...	...	2	
Toxaemia of Pregnancy, ...	...	...	...	...	1	
Prolonged Septicaemia, ...	...	...	...	...	1	
Total, ...					—	5
						—
						29
						—

The cases where haemorrhage has been presumed were cases where the history of considerable interference, and the presence of extensive laceration, made the likelihood of haemorrhage very great. Nutritional anaemia has been assumed when the patient gave a history of pallor of long duration, and where no other cause for the anaemia could be found. Further discussion of these individual points will follow.

The Effect of Haemorrhage.—In 106 cases, a definite history of haemorrhage was obtained in 14, and presumed in 4, making a total of 18, or 16.9 per cent. As all these cases had a haemoglobin value below 50 per cent., it seems obvious that only the occurrence of severe haemorrhage has been reported, and it must be assumed that haemorrhage of a lesser degree was responsible for a proportion of the cases classified as moderate anaemia. Haemorrhage is seen in Table 9 to have been responsible for half the cases of severe anaemia, but whether the same proportion of cases in the moderate group owed their anaemia to this cause is a matter for conjecture.

Causes other than Haemorrhage.—It has been shown in Table 9 that, apart from haemorrhage, the commonest cause of severe anaemia was of a nutritional nature. This nutritional group included 5 cases of phlegmasia alba dolens, and anaemia in this type of infection will be discussed later. Of the causes classified as "others" in the table,

chronic nephritis is well known to be associated with a very refractory type of anaemia, and toxæmia of pregnancy of the pre-eclamptic type is also associated with anaemia.

As with hæmorrhage, however, the case histories were of little value in assessing the cause of the anaemia in the moderate group. The remainder of this section will, therefore, be devoted to an attempt to correlate the degree of anaemia with various relevant factors.

ASSOCIATION BETWEEN THE ANAEMIA AND THE MODE OF DELIVERY.

Tables 10 and 11 show the relationship between the degree of anaemia and the mode of delivery.

TABLE 10.—SHOWING THE CLASSIFICATION OF THE CASES ACCORDING TO THE HAEMOGLOBIN VALUE.

Delivery.	Haemoglobin per cent.							
	—20	21-30	31-40	41-50	51-60	61-70	71-80	Over 80
Normal, -	0	5	6	5	13	4	2	4
Interference, -	0	4	8	10	14	6	5	3
Abortions, -	0	3	3	2	4	1	2	2

TABLE 11.

	Normal Delivery.	Interference.	Abortions.	Cases with Hæmorrhage.
Total cases, -	39	50	17	12
Cases under 50% Hb., -	16 41%	22 44%	8 47%	12 100%
Average Hb. %, -	53.2	53.7	53.0	36.0
Cases with hæmorrhage, -	6	6	—	—
Ave. Hb. %, -	36.3	35.7	—	—
Average Hb. % others, -	56.2	56.1	—	—

The tables show that the percentage of cases with a haemoglobin value of less than 50 per cent. was greatest in abortions, and greater in cases where there had been interference, than in those where the delivery was normal. The average haemoglobin percentage for the two groups post-partum was almost identical, the similarity being even more marked when the cases associated with severe haemorrhage have been removed. The level for the cases post-abortion was lower than that for the cases post-partum.

Thus it may be concluded :—

- (i) that actual interference does little to influence the blood picture unless accompanied by severe haemorrhage, and
- (ii) that the severity of the anaemia is greater after abortion than after full-time delivery.

RELATIONSHIP BETWEEN THE ANAEMIA AND THE DAY OF ONSET IN THE PUERPERIUM.

The rise in the haemoglobin content after haemorrhage or after severe anaemia of pregnancy is relatively slow, and cannot be measured in daily improvement, so this consideration is unlikely to affect the blood picture. This section might, however, indicate whether the presence of severe anaemia in any way influences the day of onset of the disease.

Nine of the cases with severe haemorrhage took ill within the first four days of the puerperium. The other three were well until a week or more had elapsed.

Of twenty-three cases with severe anaemia, seven began on the first day of the puerperium, thirteen before the fourth day, and ten were delayed beyond the end of the first week. Of these ten cases, six were cases of phlegmasia, in which condition the onset is always late.

TABLE 12.—SHOWING THE RELATIONSHIP BETWEEN THE ANAEMIA AND THE DAY OF ONSET IN THE PUERPERIUM.

	Day of Onset in the Puerperium.						
	1	2	3	4	5	6	Later.
Total cases, ...	15	14	9	15	7	7	22
Average Hb. %	46.4	63.1	52.3	56.7	56.0	64.3	46.2
	<i>* 51.27</i>	<i>53.34</i>	<i>55.41</i>	<i>57.48</i>	<i>59.55</i>	<i>61.62</i>	—
Cases under	14	8	8	9	5	3	19
(a) 60% Hb.,	93.3%	50.0%	88.8%	60.0%	71.4%	42.9%	86.4%
(b) 40% Hb.,	7	1	2	3	0	0	10
	46.6%	7.1%	22.2%	20.0%	0%	0%	45.4%

* Trend values in italics.

Table 12 shows that the average haemoglobin level in cases occurring on each of the first six days of the puerperium was lowest on the first day, and gradually rose to its highest point on the sixth day. The trend values, shown in italics, calculated for the first six days by the method of least squares, bear this out. In the same way, as is seen in the table, the proportion of cases under 40 per cent. haemoglobin was greatest on the first day, gradually falling to zero on the fifth and sixth days. In cases where the onset was delayed for a week or more, however, the average haemoglobin level was low, and the incidence of severe anaemia high, mainly on account of the large number of cases of phlegmasia in this group.

Thus it would appear that the presence of a severe anaemia tends to hasten the onset of the illness in the puerperium. This might be expected in view of the statement made on page that anaemia predisposes to the occurrence of sepsis.

Having survived the first few days, the very anaemic patients make up a large proportion of cases where the onset is late; and the majority of those being cases of phlegmasia, it would appear that severe anaemia may play some part in the production of this condition. These figures, though giving an indication of the state of affairs, cannot be regarded as accurate, as the blood counts were done on the admission of the cases to hospital, and make no allowance for the time during which the illness was progressing beforehand. How this alters the picture is seen in the next sub-section.

RELATIONSHIP BETWEEN THE ANAEMIA AND THE DAY OF DISEASE ON ADMISSION.

Table 13 shows that the average haemoglobin percentage for cases admitted in the first five days of the disease gradually fell from 60·7 for cases admitted on the first day, to 43·0 for cases admitted on the fifth day.

TABLE 13.—SHOWING THE RELATIONSHIP BETWEEN THE ANAEMIA AND THE DAY OF DISEASE ON ADMISSION.

	Day of Disease on Admission.						
	1	2	3	4	5	6	Later.
Total cases, ...	8	21	14	14	9	9	14
Average Hb. %, ...	60·7	58·5	52·9	53·2	43·0	48·5	52·4
Cases under	5	12	11	10	9	6	11
(a) 60% Hb.,	62·5%	57·1%	78·6%	71·4%	100%	66·6%	78·6%
(b) 40% Hb.,	1	2	3	6	5	3	3
	12·5%	9·5%	21·4%	42·8%	55·5%	33·3%	21·4%

Thus it would appear that the longer the disease progresses, the more severe does the anaemia become. This is confirmed by the observation in the table that the percentage of cases under 40 per cent. haemoglobin rose from 12.5 on the first day to 55.5 on the fifth, and the cases under 60 per cent. haemoglobin rose from 62.5 on the first day to 100 per cent. on the fifth.

The anaemia present in cases who had been kept at home for six or more days was less severe than that in cases admitted on the fourth and fifth days. This seems peculiar, but the explanation is that the majority of cases kept at home as long as a week were milder and therefore the degree of blood destruction less.

Thus, generally speaking, the degree of anaemia progresses as the patient is kept longer untreated, a fact which may account for the number of irregularities seen in Table 13.

RELATIONSHIP BETWEEN THE ANAEMIA AND THE AGE OF THE PATIENT.

In Table 14 it is seen that the average haemoglobin level varied only slightly from one age group to another, being highest in the group under 20 years, and lowest in the group 26-30 years.

TABLE 14.—SHOWING THE RELATIONSHIP BETWEEN THE ANAEMIA AND THE AGE OF THE PATIENTS.

		Age Groups.				
		—20	21-25	26-30	31-35	36+
Total cases,	-	11	22	26	29	18
Average Hb. %,	-	57.7	52.8	51.8	53.6	53.3
Cases under		7	17	22	21	10
(a) 60% Hb.,	-	63.6%	77.0%	85.4%	72.4%	55.5%
(b) 40% Hb.,		3	6	4	8	8
		27.3%	27.3%	15.4%	27.6%	44.4%

It is also seen that in the age group 26-30, most of the cases had a haemoglobin value between forty and sixty per cent., very few indeed being outside this limit; whereas in the age group of 36 and over, the number of cases with a haemoglobin percentage between forty and sixty was very small, the majority of the cases being either over sixty or under forty.

A detailed study of the cases with a haemoglobin percentage of forty and less showed that in the age group 26-30, all in this category had a history of haemorrhage, or indications pointing to the likelihood of haemorrhage, while in the age group 36 and over, only three of eight cases had a history of haemorrhage, the other five coming under the heading of "other causes," indicating in this group the presence of a severe anaemia, probably nutritional in origin. In Table 15, showing the comparative distribution of the cases according to the cell count and the haemoglobin percentage, it is seen that the disparity in the distribution of the cases according to the two methods was obvious in the higher age groups, beginning to manifest itself in the age group 26-30, and becoming more pronounced as the age increased. This would indicate that this nutritional anaemia is of a progressive hypochromic nature.

TABLE 15.—SHOWING THE COMPARISON BETWEEN THE CELL COUNT AND THE HAEMOGLOBIN PERCENTAGE ACCORDING TO THE AGE OF THE PATIENT.

R.B.C. Millions.		—1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4	4+
Haemoglobin %		—20	21-30	31-40	41-50	51-60	61-70	71-80	80+
Age —20,	...	0	0	3	1	2	1	1	3
	*	0	1	2	2	2	0	3	1
„ 21-25,	...	0	2	4	1	4	4	4	3
	*	0	3	3	2	9	3	1	1
„ 26-30,	...	0	1	2	5	8	7	2	1
	*	0	1	3	9	9	2	1	1
„ 31-35,	...	0	2	4	3	8	3	5	4
	*	0	5	3	4	9	2	3	3
„ 36+,	...	0	1	1	6	0	3	2	5
	*	0	2	6	0	2	4	3	1

Classification according to the cell count—Ordinary type.

* Classification according to the haemoglobin—Italics.

Fullarton has shown that in both pregnant and non-pregnant women, a hypochromic anaemia of nutritional origin manifests itself and gradually progresses throughout reproductive life, becoming most pronounced between the ages of 35 and 45. While this nutritional anaemia would explain the large proportion of cases with moderate anaemia in the age group 26-30, and the high incidence of severe anaemia in the group "36 and over," it does not explain the large proportion of cases in the last group with a haemoglobin percentage over sixty.

Of eight such cases, four were mild, three were abortions, and one was a case of septicaemia. The explanation might be that, while a high haemoglobin level may protect a patient in the lower age groups from a mild infection, it does not have the same effect in older patients.

RELATIONSHIP BETWEEN THE ANAEMIA AND PARITY.

Table 16 shows the relationship between the anaemia and the parity.

TABLE 16.

			Number of Pregnancies.					
			1	2	3	4	5 & 6	Over 7.
Total cases,	...	...	40	13	12	14	13	14
Average Hb. %,	...	...	53.2	57.8	58.9	55.3	42.4	53.3
Cases under			29	9	8	10	12	9
(a) 60% Hb.,	...	...	72.5%	69.2%	66.6%	71.4%	92.0%	64.3%
(b) 40% Hb.,	...	...	10	2	2	4	7	4
			25.0%	15.4%	16.6%	28.5%	54.0%	28.5%

It is seen that the average haemoglobin level in cases following the first pregnancy was lower than that in cases following the second and third. It then fell somewhat in cases following the fourth pregnancy, and very markedly in the group of cases who had had five or six, and to a less extent in cases who had seven or more pregnancies.

A study of the proportion of cases under 60 and under 40 per cent. haemoglobin in Table 16 shows that the fluctuation in the average haemoglobin level was influenced only by the number of cases of severe anaemia, that is, under 40 per cent. haemoglobin.

TABLE 17—SHOWING THE CAUSE OF SEVERE ANAEMIA ACCORDING TO PARITY.

Cause of Anaemia.	Number of Pregnancies.					
	1	2	3	4	5 & 6	7+
Haemorrhage, - -	8	1	1	2	2	1
Nutritional, - -	2	1	1	2	5	3
Total, - -	10	2	2	4	7	4

It is seen from this table that, in the first group, the fairly high percentage of cases with severe anaemia was due mainly to cases of haemorrhage. In the second, third, and fourth groups, the numbers were small, but the cases were equally divided between haemorrhage and nutritional causes. In the fifth and sixth groups, most of the cases were nutritional in origin, corresponding with those in the higher age groups. Table 18 confirms the falling colour index in the last three groups.

TABLE 18.—SHOWING THE COMPARATIVE DISTRIBUTION OF THE CASES ACCORDING TO THE CELL COUNT AND HAEMOGLOBIN LEVEL.

R.B.C. Millions.	-1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4	4+
Haemoglobin %	-20	21-30	31-40	41-50	51-60	61-70	71-80	80+
Para. I., ...	0	2	7	5	10	6	5	5
* ...	<i>0</i>	<i>4</i>	<i>6</i>	<i>8</i>	<i>11</i>	<i>5</i>	<i>5</i>	<i>1</i>
Para. II., ...	0	1	1	1	1	4	3	2
* ...	<i>0</i>	<i>1</i>	<i>1</i>	<i>2</i>	<i>5</i>	<i>1</i>	<i>1</i>	<i>2</i>
Para. III., ...	0	0	3	1	3	0	1	4
* ...	<i>0</i>	<i>1</i>	<i>1</i>	<i>3</i>	<i>3</i>	<i>0</i>	<i>2</i>	<i>2</i>
Para. IV., ...	0	1	0	2	3	5	2	1
* ...	<i>0</i>	<i>1</i>	<i>3</i>	<i>0</i>	<i>6</i>	<i>2</i>	<i>1</i>	<i>1</i>
Para. V. and VI., ...	0	2	3	2	2	2	2	0
* ...	<i>0</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>3</i>	<i>0</i>	<i>1</i>	<i>0</i>
Para. VII. and over, ...	0	0	0	5	3	1	1	4
* ...	<i>0</i>	<i>0</i>	<i>4</i>	<i>2</i>	<i>3</i>	<i>3</i>	<i>1</i>	<i>1</i>

Classification according to cell count—Ordinary type.

* Classification according to haemoglobin—Italics.

The very low figure of the average haemoglobin percentage in the "para 5 and 6" group, and the higher figure in the "para 7 and over" group was somewhat unexpected. Reviewing the distribution of the cases in the age group "36 and over," it was seen that most of the cases with a low blood value fell into the "para 5 and 6" group, the higher values being distributed between the lower and higher parities. This may be coincidence, but, if it is not, no ready explanation is available.

PROGNOSTIC SIGNIFICANCE OF THE ANAEMIA.

It was seen on page 28 that the degree of anaemia following abortion was greater than that following full time delivery. As the total number of abortions was too small for sub-division, these cases have been included with the others in their appropriate groups.

TABLE 19.

R.B.C. Millions.	-1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4	4+
Haemoglobin %.	-20	21-30	31-40	41-50	51-60	61-70	71-80	80+
Local Infection,	0	1	4	2	6	5	5	3
*	<i>0</i>	<i>3</i>	<i>4</i>	<i>2</i>	<i>7</i>	<i>3</i>	<i>5</i>	<i>2</i>
Toxaemia, ...	0	1	4	2	5	3	1	2
*	<i>0</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>7</i>	<i>1</i>	<i>1</i>	<i>1</i>
Septicaemia and Peritonitis—								
Recovered, ...	0	3	1	1	2	3	2	6
*	<i>0</i>	<i>2</i>	<i>1</i>	<i>4</i>	<i>5</i>	<i>1</i>	<i>3</i>	<i>2</i>
Deaths, ...	0	0	3	7	3	2	2	4
*	<i>0</i>	<i>1</i>	<i>6</i>	<i>4</i>	<i>4</i>	<i>3</i>	<i>1</i>	<i>2</i>
Pelvic Cellulitis,	0	0	0	0	2	1	2	1
*	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>4</i>	<i>2</i>	<i>0</i>	<i>0</i>
Phlegmasia, ...	0	1	2	4	4	4	2	0
*	<i>0</i>	<i>4</i>	<i>4</i>	<i>3</i>	<i>4</i>	<i>1</i>	<i>1</i>	<i>0</i>

Classification according to cell count shown in ordinary type.

* Classification according to haemoglobin shown in italics.

In Table 19, the degree of anaemia on admission is shown in relation to the type of infection which occurred, according to the classification adopted. For possible prognostic significance, the deaths have been put into a group by themselves. The degree of anaemia is shown as judged both by the blood count and the haemoglobin percentage.

Table 20 shows the proportion of cases in each group with a haemoglobin percentage of less than sixty and under forty.

Comparing the "local" and "toxic" groups, it is seen that, although the percentage of "toxic" cases under sixty per cent. haemoglobin was greater, the proportion under forty was less than in the "local" group. Thus it may be inferred that the presence of anaemia rather predisposes to a "toxic" infection, but the higher figure for severe anaemia in the "local" group suggests a very mild infection in some of these cases, which might not have arisen had the blood value been higher.

Comparing the recoveries and the deaths in the septicaemia and peritonitis groups, it is seen that the incidence of anaemia, particularly of severe degree, was greater in those who died, suggesting that the presence of a severe anaemia tends to adduce to a fatal conclusion.

The group of cases of pelvic cellulitis shows that severe anaemia was not a feature of this type of infection. The reverse, however, is seen in the "phlegmasia" group, where the incidence both of moderate and severe anaemia was exceptionally high.

TABLE 20.

			Type of Infection.					
			*A.	B.	C.	D.	E.	F.
Total cases,	...	...	26	18	18	21	6	17
Cases under			16	15	12	15	4	15
(a) 60% Haemoglobin,			61.5%	83.3%	66.7%	71.4%	66.6%	88.2%
(b) 40% Haemoglobin,			7	4	3	7	0	8
			26.9%	22.2%	16.7%	33.3%	0%	47.1%

* A = Local infection ;

B = Toxaemia ;

C = Septicaemia and peritonitis,
recovered ;

D = Cases who died;

E = Pelvic cellulitis;

F = Phlegmasia.

Referring again to Table 19, and comparing the grouping according to the cell count with that as shown by the haemoglobin level, nothing of note is seen in any of the groups except the one including the cases of phlegmasia, where the disparity was much greater than in any of the other types of infection, indicating that this anaemia accompanying phlegmasia is associated with an unusually low colour index.

PROGRESS OF THE ANAEMIA THROUGHOUT THE DISEASE.

In order to ascertain how the anaemia progresses throughout the disease, and to determine whether any degree of spontaneous recovery of the blood value is possible, a series of twenty-six cases was studied, in which no anti-anaemic treatment was given throughout the period of active sepsis.

Blood examinations, consisting of the red cell count and haemoglobin estimation were carried out at weekly intervals, and from the results obtained it was seen that, except in the very mild, localised cases, the blood value either deteriorated or remained stationery while the septic process was active, whether it was absorption of toxins from the uterus, a pelvic inflammatory mass, or a thrombo-phlebitis; thus the fall was in direct relation to the degree of toxæmia present; that, in the milder cases, this appeared to be due to a temporary paralysis of the haemopoietic system, that is, of an aplastic nature, but in the more severe cases, there was active lysis of the cells in circulation.

It was also seen that in most cases, after the septic process had subsided, there was a natural effort on the part of the body to bring the blood value to a satisfactory level, but that the colour index tended to fall owing to a deficiency in iron.

THE EFFECT OF IRON THERAPY ON THE ANAEMIA IN PUERPERAL SEPSIS.

A series of thirty-eight cases was treated with various doses and preparations of iron to ascertain:—

(1) If the iron is capable of overcoming the persistent and sometimes progressive anaemia present during the active stage of the sepsis, and, if so, what dosage is necessary, and

(2) If iron will produce a complete recovery of the blood value within a reasonable time during the convalescence. These patients are usually very anxious that their convalescence should be as brief as is consistent with safety, as they have left a new-born baby at

home, and domestic arrangements require their presence. It is obvious, however, that such a patient will not be fit for her duties at home if she is dismissed with an anaemia of any great degree, and they usually find it very inconvenient to attend as out-patients after dismissal.

GENERAL CONCLUSIONS ON IRON THERAPY IN THE ANAEMIA ASSOCIATED WITH PUERPERAL SEPSIS.

These observations show that in all except the very mild cases, iron has little or no effect on the anaemia during the active stage of the sepsis—the time when it is most desirable to have the blood in a satisfactory condition to combat the disease; when the metabolic process is at its highest level and the demand on the blood as an oxygen carrier therefore at its greatest. A deficiency in the haemoglobin at such a time will obviously increase the work to be carried out by a heart already poisoned by the circulating toxins. In the more severe cases, indeed, it is seen that the anaemia becomes accentuated, thereby setting up a vicious cycle.

The inability of iron to break this vicious cycle would seem to demand, in cases at least where the anaemia is of severe degree and the margin of safety therefore small, more drastic measures to bring the blood rapidly to a more satisfactory level. The obvious method of achieving this aim is to use blood transfusion, by which means a measured quantity of fresh red blood corpuscles and haemoglobin can rapidly be added to the patient's circulation.

In severe anaemia, even in mild sepsis, the recovery of the blood is so protracted as to make the patient's convalescence unduly long and wearisome, and, before the blood is in a satisfactory condition, the patient is feeling well enough to be begging to be allowed home to her domestic duties. The same is seen in patients with severe anaemia in association with phlegmasia.

It would seem, therefore, that blood transfusion would appear to be indicated in all cases of severe anaemia, to counteract any possible further fall in the blood value, and to give an initial impetus to the blood recovery, which could be supplemented with iron to shorten the convalescence.

BLOOD TRANSFUSION IN PUERPERAL SEPSIS.

Most of the disappointing results of transfusion in sepsis have been obtained from its use as an anti-bacterial agent, and, in this respect,

it would appear to fall into line with most of the other anti-bacterial measures which have been advocated. More recently, the view appears to be gaining ground that its chief value lies in its power to correct anaemia by enriching an impoverished blood stream.

In view of this fact, and of the frequency and severity of anaemia as a feature of puerperal sepsis, its progressive nature, and the inadequacy of iron in its treatment, the main indication used as a guide for transfusion was the correction of anaemia, but a series of cases was also included, using blood transfusion as a general therapeutic measure in cases with profound toxæmia.

IN THE CORRECTION OF ANAEMIA.

In judging the efficacy of transfusion in such cases, a distinction was made between cases with severe but not progressive anaemia, and cases where the blood value was deteriorating.

Cases with Severe but not Progressive Anaemia.

1. In mild localised infections, accompanied by severe anaemia, blood transfusion is of value in two ways :—

- (a) By relieving the immediate symptoms due to anaemia.
- (b) By shortening the convalescence, not only by improving the blood value mechanically, but also by its stimulating effect on haemopoiesis.

To obtain the most satisfactory effect in shortening the convalescence, iron preparations should be administered in massive doses in addition to the transfusion, as there is insufficient iron in the blood transfused and in the food to supply what is required in active blood regeneration. Whitby has pointed out a similar finding in the use of blood transfusion in the anaemias of pregnancy.

2. It would appear that in cases of phlegmasia associated with severe anaemia, the essential defect is in the supply or absorption of iron, which blood transfusion alone cannot correct. In such cases blood transfusion is of value in relieving the symptoms directly attributable to the anaemia, but adjuvant treatment with massive dosage of iron is necessary to complete the blood recovery.

Cases with Progressive Anaemia.—In cases with progressive anaemia due to a severe infection, arrest of the blood deterioration, or replacement of a falling count by a stationary or rising one while still pyrexial,

was taken as a proof of sustained benefit from the transfusion, while a falling count after the immediate response to the transfusion was an indication of failure of the transfusion to impart any lasting benefit. Using these criteria in fifteen cases, the following results were obtained :—

TABLE 24.

Definite sustained benefit,	8
Sustained benefit but died of tuberculosis, ...	1
Sustained benefit from first, but not from second transfusion,	1
No benefit from first, but benefit from second, and tuberculosis contributed towards fatal conclusion,	1
Total partial success,	3
Unsuccessful,	4
	—
	15
	==

It was seen that in toxaemic cases, and cases of mild septicaemia, benefit may be expected from a single blood transfusion, which can break the vicious cycle of deteriorating blood in active sepsis and replace it by a steady rise in the blood count, thus enabling the patient to deal more effectively with the infection.

In very severe septicaemia, however, blood transfusion was of evanescent, if of any, value.

Between these two extremes there would appear to be a type of case where carefully administered and repeated transfusions might swing the balance from a fatal to a successful conclusion. These are the cases of prolonged and fairly severe septicaemia which often terminate fatally.

Cases with Profound Toxaemia.—In a series of cases where the patient was profoundly ill, blood transfusion was administered apart from anaemia as an indication. The disposition of the cases into disease groups, with the ultimate result, is seen in Table 25.

TABLE 25.

Type of Infection.	Number Recovered.	Number Died.	Total.
Toxaemia, - - - - -	1	0	1
Septicaemia, - - - - -	0	3	3
Peritonitis, - - - - -	2	2	4
Pyæmia, - - - - -	1	0	1
Total, - - - - -	4	5	9

CONCLUSIONS.

1. Corroboration is given to the finding in the last section, that in cases of severe, rapidly progressive septicaemia, blood transfusion is of little or no value.

2. In cases where peritonitis is part of a severe septicaemia, blood transfusion, with or without laparotomy, is valueless.

3. In peritonitis without blood stream infection, and in cases where the common source of infection both of the blood stream and the peritoneal cavity is extra-uterine and can be eradicated, early operation and blood transfusion may be attended by very gratifying results.

4. In an occasional case, blood transfusion may tide the patient over the critical stage of the initial septicaemia, and leave her capable of dealing with any complications which may follow.

5. Blood transfusion is powerless to prevent the development of the anaemia associated with chronic sepsis of long duration.

SUMMARY AND FINAL CONCLUSIONS.

The Anaemia in Puerperal Sepsis.

1. A severe degree of anaemia has been shown to be of frequent occurrence in patients admitted to hospital suffering from puerperal sepsis. Although haemorrhage was found to be the commonest cause in the younger patients, as age advances it is more frequently of a nutritional nature.

2. Not only does this anaemia predispose to the occurrence of infection, but it also hastens its onset in the puerperium and adds to its gravity.

3. The anaemia is further accentuated throughout the course of the infection, in milder cases by a failure of response of the haemopoietic system, and in severe cases by haemolysis. The reduction in the value of the blood during the sepsis is in proportion to the degree of toxæmia present. The effect of this is to reduce the resistance of the patient and to prolong the convalescence.

4. Treatment with iron, even in massive dosage, is ineffective in correcting, or even arresting, the progress of the anaemia during the stage of sepsis in all except the very mildest cases.

5. The progressive nature of the anaemia makes it a useful guide in assessing the value of blood transfusion.

6. Anaemia of severe degree and of hypochromic nature has been demonstrated in cases with phlegmasia alba dolens. This anaemia is due to deficient intake or absorption of iron, and would appear to play some part in the production of phlegmasia.

7. In cases accompanied by chronic suppuration, there is a slowly progressive anaemia which is very resistant to treatment with iron until the sepsis has been eradicated.

8. As a result of these investigations, blood transfusion would appear to be indicated in certain cases :—

- (i) In all cases with a haemoglobin value below 40 per cent., irrespective of the degree of toxæmia.
- (ii) In all cases where a rapid deterioration of the blood value is occurring.
- (iii) In cases of prolonged sepsis where the blood is stationary at an unsatisfactory level.
- (iv) In all cases with profound toxæmia, irrespective of the degree of anaemia.

The Value of Blood Transfusion.

1. In cases of localised sepsis with severe toxæmia, and in mild cases of septicaemia, blood transfusion is of little value in arresting the blood deterioration and replacing it with an improving blood picture.

2. In rapidly advancing septicaemia, with or without peritonitis, blood transfusion is of little or no value.

3. In cases falling between these extremes, blood transfusions, repeated at short intervals, may be of life-saving value.

4. In peritonitis occurring in cases other than very acute septicaemia, blood transfusion following early laparotomy is of considerable value.

5. In the anaemia accompanying phlegmasia, transfusion will produce an immediate improvement, but only by reason of its mechanical effect, iron in massive dosage being required to complete the treatment.

6. In cases with prolonged chronic sepsis, transfusion is powerless to prevent the occurrence of anaemia, but it may be of value in tiding the patient over a critical period early in the illness.

7. Blood transfusion alone provides insufficient iron to meet the demands of the body in all except the mildest degrees of anaemia, and adjuvant treatment with iron is necessary. The best preparation for this purpose was found to be Bland's pill in doses of 30 to 60 grains daily, combined with arsenious acid.

8. Transfusion is of considerable value in cases with severe anaemia, by relieving the symptoms immediately due to the anaemia, and by providing a stimulus to haemopoiesis, which considerably shortens the convalescence.

ERYSIPELAS.

One patient was in hospital at the beginning of the year ; 79 were admitted as erysipelas ; and 15 were wrongly diagnosed. Of these 65 patients, 59 were discharged well, 1 died, and 5 were in hospital at the end of the year.

SEX.—Male, 30 ; female, 30.

TYPE OF DISEASE.—Mild, 31 ; moderate, 20 ; severe, 9.

SITUATION OF DISEASE.—Face, 51 ; face and scalp, 1 ; leg, 8.

THE AVERAGE AGE was 42·6 years ; 1 was under 1 year of age ; 2 between 1 and 10 years ; 5 between 11 and 20 years ; 4 between 21 and 30 years ; 10 between 31 and 40 years ; 19 between 41 and 50 years ; and 19 were over 50 years of age.

THE AVERAGE DAY OF DISEASE was 3.8 days, and the average residence, 24.2 days.

THE FATALITY RATE was 1.6 per cent. The fatal case was a male, aged 45 years, admitted on the 6th day of disease suffering from a mild facial erysipelas, and dying from valvular disease of the heart.

COMPLICATIONS.—Ten, or 16.6 per cent., developed one or more complications. These were :—Abscesses, 4 ; albuminuria, 1 ; boils, 1 ; cellulitis, 1 ; periostitis, 1 ; relapse, 4 ; septic spots, 1 ; sinusitis, 1 ; suppurative choroiditis, 1 ; tonsillitis, 1.

OTHER CONDITIONS PRESENT ON ADMISSION.—Adenitis, 1 ; cardiac disease, 1 ; cellulitis, 1 ; chronic blepharitis, 1 ; chronic rhinitis, 1 ; herpes, 1 ; nephritis, 1 ; phlebitis, 3 ; varicose ulcer, 1 ; varicose veins, 2.

CORRECTED DIAGNOSES.—Fifteen, or 20 per cent., were wrongly diagnosed :—Abscesses, 2 ; cancer of uterus, 1 (fatal) ; cellulitis, 5 ; dermatitis, 2 ; diabetes mellitus, 1 (fatal) ; Ludwig's angina, 1 ; negative, 2 ; septic umbilical cord, 1.

RELAPSES.—In 4 instances a relapse or recurrence was noted. One patient was admitted 4 days after discharge with a recurrence.

TREATMENT.—Ultra-violet light was used throughout the year. The results confirm the remarks detailed in last year's report as to the value of light in the treatment of erysipelas. Light only was used in 44 cases, with an average exposure of 1.5. In 12 patients light combined with Prontosil was used. The average exposure was 3 and the average intramuscular Prontosil was 30 c.c. Another patient had, in addition to light and Prontosil, 9,000 units of scarlet fever antitoxin.

AN UNUSUAL COMPLICATION.—A male, aged 40 years, came in with a severe right facial erysipelas. After an exposure to light the face lesion gradually subsided, but the inflammation spread to the scalp and the back of the neck. In spite of other light exposures and the exhibition of large doses of Prontosil, abscesses appeared in the scalp and parotid regions. The left side of the face became involved, with marked swelling and oedema of the left eyelids. As the left

eyeball became prominent it was thought that an orbital cellulitis was appearing. Although the cellular tissue was opened up, no discharge was obtained. Ophthalmoscopic examination revealed the condition to be a septic choroiditis. Panophthalmitis resulted and the eyeball had to be enucleated.

Although the patient's temperature swung between 98° and 102° F. for 2 weeks, he was not toxic and did not feel ill. This case seemed not only to show unusual local susceptibility to the streptococcus, but resistance to light and Prontosil.

TUBERCULOSIS.

149 patients were admitted as tuberculosis. In 9 instances the diagnosis was revised, and 17 others proved to be cases of tuberculosis. Of these 157 cases, 139 were discharged in various stages of improvement and 18 died.

The following table shows the age-periods and sex of the cases discharged :—

Age.	Recovered.		Died.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.
— 5 years, - -	3	1	2	1	5	2
—10 „ - -	—	1	2	3	2	4
—15 „ - -	—	—	—	1	—	1
—20 „ - -	15	27	3	1	18	28
—25 „ - -	15	46	1	1	16	47
—30 „ - -	3	6	—	—	3	6
—35 „ - -	1	—	1	—	2	—
—40 „ - -	1	—	—	—	1	—
Over 40 „ - -	14	6	—	2	14	8
	52	87	9	9	61	96

SEX.—Male, 61 ; female, 96.

THE AVERAGE AGE was 24·5 years, and the average residence was 8·1 days.

CLASSIFICATION OF CASES.

Pulmonary, 135 (pneumothorax, 118).			
Glandular,	3.	Meningeal,	15.
Eye,	1.	Osseous,	1.
General,	1.	Skin,	1.

PULMONARY TUBERCULOSIS.—135. 118 represent the re-admissions of 18 pneumothorax cases for induction or refills. Of the other 17 cases, 5 were tubercular pleural effusions; 1 tubercular empyema; 10 were admitted as other diseases; and 1 was an advanced pulmonary case.

GLANDULAR TUBERCULOSIS.—3. The 3 cases had cervical abscesses.

EYE TUBERCULOSIS.—1. A girl, aged 7 years, notified as syphilitic keratitis, proved to be a tubercular case.

GENERAL TUBERCULOSIS.—1. A male, aged 19 years, notified as meningitis, proved to be a case of generalised tuberculosis. He was removed home after a residence of 49 days.

OSSEOUS TUBERCULOSIS.—1. A male, aged 39 years, had old standing tuberculosis of the sternum.

SKIN TUBERCULOSIS.—1. A child, aged 1 year, notified as pneumonia, had diffuse tubercular ulceration of the face. After scraping and light treatment the condition improved.

MENINGEAL TUBERCULOSIS.—15. Males, 8; females, 7. Eight were under 10 years of age; 5 were between 11 and 20 years; and 2 were over 20 years. The average age was 14 years. All were fatal.

FATAL CASES.—18. Meningeal, 15; pulmonary, 3.

CORRECTED DIAGNOSES.—9. Abdominal tumour, 1; asthma, 1; bronchitis, 1; constipation, 1; gas poisoning, 1; gastro-enteritis, 1; pneumonia, 2; poliomyelitis, 1.

OTHERS WHICH PROVED ON OBSERVATION TO BE TUBERCULOSIS.—Continued fever, 2; empyema, 1; meningitis, 1; observation, 1; pleural effusion, 1; pleurisy, 1; pneumonia, 6; positive Widal, 1; puerperal fever, 1; scarlet fever, 1; syphilis, 1.

PNEUMONIA.

Twenty-four patients were in residence at the beginning of the year, 356 were admitted, in 140 the diagnosis was revised, and 12 others proved to be cases of pneumonia. Of these 252 cases, 167 recovered, 58 died, and 27 were in hospital at the end of the year.

The following table shows the age-periods and the sex of the cases discharged :—

Age.	Recovered.		Died.		Total.		Percentage.	
	Males.	Females.	Males.	Females.	Males.	Females.	of Total.	Deaths
— 1 year, -	13	8	6	10	19	18	16·4	27·5
— 2 years,	12	6	10	4	22	10	14·2	24·1
— 3 „	10	5	—	—	10	5	6·6	—
— 4 „	7	4	1	1	8	5	5·7	3·4
— 5 „	3	3	—	—	3	3	2·6	—
6-10 „	11	8	1	—	12	8	8·8	1·7
11-15 „	13	5	—	—	13	5	8·0	—
16-20 „	9	2	2	—	11	2	5·7	3·4
21-25 „	8	1	1	1	9	2	4·8	3·4
26-30 „	8	3	2	—	10	3	5·7	3·4
31-35 „	7	1	1	—	8	1	4·0	1·7
36-40 „	3	—	4	—	7	—	3·1	6·8
Over 40 „	10	7	8	6	18	13	13·7	24·1
	114	53	36	22	150	75	—	—

CLASSIFICATION OF DISEASE.—Acute lobar pneumonia, 110 ; broncho-pneumonia, 114 ; tubercular pneumonia, 1.

TYPE OF DISEASE.—Mild, 58 ; moderate, 66 ; severe, 101.

THE SITUATION OF THE LESION in the lobar cases was as follows :—Double, 6. Right side :—Lower lobe, 23 ; upper lobe, 8 ; middle, 4 ; upper and middle, 2 ; lower and middle, 1 ; whole, 12. Left side :—Lower lobe, 39 ; upper lobe, 6 ; upper and lower, 9.

THE AVERAGE DAY OF DISEASE of all cases on admission was 5.3 days ; of recovered cases, 5 days ; and of fatal cases, 6.2 days.

THE AVERAGE DURATION OF RESIDENCE of all cases was 30.3 days ; of recovered cases, 38 days ; and of fatal cases, 8.1 days.

THE FATALITY RATE was 25.7 per cent. Eight cases died within 24 hours of admission, and 7 others within 48 hours. In lobar pneumonia the fatality rate was 23.6 per cent. ; right side lobar pneumonia, 24 per cent. ; left side lobar pneumonia, 16.6 per cent. ; double lobar pneumonia, 83.8 per cent. ; broncho-pneumonia, 27.2 per cent.

COMPLICATIONS.—Sixty-one, or 27.1 per cent., of the discharges developed one or more complications. These were :—Abscesses, 2 ; adenitis, 1 ; albuminuria, 3 ; arrhythmia, 1 ; arthritis, 1 ; boils, 3 ; cellulitis, 1 ; cholecystitis, 1 ; conjunctivitis, 1 ; dermatitis, 1 ; empyema, 17 ; endocarditis, 1 ; enteritis, 7 ; haemoptysis, 1 ; haemorrhage, 1 ; jaundice, 2 ; otitis media, 8 ; paronychia, 1 ; parotid swelling, 1 ; pericarditis, 6 ; peritonitis, 1 ; phlegmasia, 1 ; pleural effusion, 6 ; positive swab (*B. diphtheria*), 1 ; recurrence, 1 ; rhinitis, 5 ; sore throat, 2 ; vaginitis, 1.

CORRECTED DIAGNOSES.—140, or 38.3 per cent., of the cases discharged were wrongly diagnosed :—Anaemia, 2 ; bronchiectasis, 1 ; bronchitis, 45 ; burns, 1 ; cardiac infarction, 1 ; endometritis, 1 ; enteric fever, 2 ; enteritis, 9 ; influenza, 7 ; influenzal meningitis, 1 ; inguinal abscess, 1 ; intestinal obstruction, 1 ; leukaemia, 1 ; malnutrition, 2 ; marasmus, 5 ; measles, 20 ; meningismus, 1 ; negative, 3 ; neurosis, 1 ; osteomyelitis of ribs, 1 ; otitis media, 2 ; pleural effusion, 5 ; pleurisy, 2 ; pulmonary abscess, 1 ; pulmonary fibrosis, 5 ; pyelitis of pregnancy, 1 ; rhinitis, 1 ; septicaemia, 1 ; suppurative pyelonephritis, 1 ; tuberculosis, 6 ; whooping cough, 9.

CONCURRENT DISEASES.—Chickenpox, 1 ; incubating measles, 1 ; incubating scarlet fever, 1 ; measles, 2 ; whooping cough, 2. In 8 other patients the pneumonia occurred after measles, and in 6 after whooping cough.

OTHER CONDITIONS PRESENT ON ADMISSION.—Abscesses, 2 ; adenitis, 2 ; albuminuria, 3 ; anaemia, 1 ; arterio-sclerosis, 1 ; asthma, 1 ; burn, 1 ; cardiac disease, 4 ; chronic cystitis, 1 ; con-

conjunctivitis, 2 ; dermatitis, 1 ; enteritis, 11 ; jaundice, 1 ; kyphosis, 1 ; laryngitis, 1 ; marasmus, 5 ; nephritis, 2 ; otitis media, 1 ; pregnancy, 2 ; rhinitis, 2 ; scabies, 1 ; talipes, 1 ; vaginitis, 1.

CASES WHICH PROVED TO BE PNEUMONIA on observation were admitted to hospital as :—Diphtheria, 2 ; empyema, 2 ; impetigo, 1 ; meningitis, 2 ; pleural effusion, 1 ; puerperal fever, 2 ; tuberculosis, 2.

EMPYEMA.—Seventeen. In 17 instances empyema followed the pneumonia. Fifteen were pneumococcal and 2 streptococcal. In 11, rib resection, after varying periods of aspiration, was necessary. In 1 patient resection was performed twice. Seven recovered and 4 were fatal. In 6 others, all fatal, 3 were aspirated, 2 had a drainage tube inserted through an intercostal space, and 1 was admitted dying.

TYPE OF ORGANISM.—In 13 type I was present, 3 deaths ; in 17 type II, 6 deaths ; in 1 fatal case types I and II were reported ; and in 5 type IV, 3 deaths.

TREATMENT.—Pneumonia patients were treated on general lines—rest, nursing, oxygen, and glucose transfusions. In 6 early cases type serum was used. Four recovered and 2 died. In 3 cases the organism was type I ; in 2 type II ; and in 1 the type of pneumococcus was indefinite. The 2 fatal cases were type II. The average day of disease in the serum treated cases was 2 days, and the average amount given was 56,000 units. In 2 instances urticarial rashes resulted.

EMPYEMA.

Thirteen patients were admitted with the diagnosis of empyema, in 5 the diagnosis was revised, and 2 others proved to be cases of empyema. Of those 10 cases, 6 recovered, 2 died, and 2 were in hospital at the end of the year.

SEX.—Male, 3 ; female, 5.

THE AVERAGE AGE was 2·6 years, and the average residence in hospital, 79·1 days.

TYPE OF INFECTION.—Pneumococcal, 7 ; streptococcal, 1.

In 3 cases in which the pneumococcus was typed, 1 was type I and 2 type IV.

All the cases came to rib resection after repeated aspiration. One patient developed pneumococcal peritonitis, 2 otitis media, and 1 inguinal abscess.

FATAL CASES.—Of the 2 fatal cases, 1 died from marasmus and 1 peritonitis.

CORRECTED DIAGNOSES.—Bronchitis, 1; pleural thickening, 1; pneumonia, 2; tuberculosis, 1.

MENINGITIS.

One patient was in hospital at the beginning of the year, and 37 were notified as meningitis. The diagnosis was revised in 23, and 1 other proved to be a case of meningitis. Of those 16 patients, 3 recovered, 11 died, and 2 were in hospital at the end of the year.

CEREBRO-SPINAL FEVER.—Of the 5 proved cases, 4 were fatal.

The average day of disease was 4.8 days, and the average residence, 18.6 days.

The average age was 2.4 years; 2 were under 1 year; 2 years, 1; 3 years, 1; 5 years, 1.

In 3 instances the organism was type II. Two of the fatal cases were moribund on admission.

TREATMENT.—The average amount of serum administered was 156 c.c. by the cisternal, intravenous, and intraperitoneal routes.

PNEUMOCOCCAL MENINGITIS.—Three children died from pneumococcal meningitis. Two were moribund on admission. The average day of disease was 8 days. In two cases the organism was type I and in one type IV. Two had large doses of pneumococcal serum.

STAPHYLOCOCCAL MENINGITIS.—Two adult patients died from a staphylococcal aureus infection.

INFLUENZAL MENINGITIS.—A child, aged 1 year, admitted with broncho-pneumonia, died from an influenzal meningitis.

SEROUS MENINGITIS.—A female, aged 8 years, was classified as serous meningitis. She was in hospital for 31 days.

PACHYMENINGITIS HAEMORRHAGICA.—A boy, aged 8 years, was admitted with typical signs of meningitis. Repeated punctures, lumbar and cisternal, revealed the presence of blood but no organism. No cause for the condition was discovered. After a long convalescence he recovered completely.

MENINGITIS (TYPE INDEFINITE).—A female, aged 26 years, was admitted on the 6th day of disease dying from meningitis. No organism was grown from the one specimen of fluid obtained.

CORRECTED DIAGNOSES.—Bronchitis, 2; cerebellar tumour, 1 (fatal); constipation, 2; enteritis, 6 (2 fatal); hydrocephalus, 1 (fatal); marasmus, 2; negative, 2; pneumonia, 2; septicaemia, 1 (fatal); septic tonsils, 1; scarlet fever, 1; tuberculosis, 1; whooping cough, 1.

MEASLES.

Forty-three patients were notified as measles, 4 were wrongly diagnosed, and 27 others proved to be cases of measles. Of those 66 patients, 64 were discharged well and 2 died.

SEX.—Male, 25; female, 41.

TYPE.—Mild, 43; moderate, 16; severe, 7.

THE AVERAGE DAY OF DISEASE was 3·8 days; the average age, 9·6 years; and the average residence, 27·2 days.

Of the 66 cases, 17 were adults.

FATAL CASES.—Two, or 3 per cent., were fatal.

(1) A female, aged 3 years, died from broncho-pneumonia and gastro-enteritis.

(2) A female, aged 3 years, admitted as diphtheria, died 48 hours after tracheotomy for severe laryngitis and broncho-pneumonia.

COMPLICATIONS.—Abscesses, 2; boils, 2; bronchitis, 2; broncho-pneumonia, 2; enteritis, 1; laryngitis, 1; otitis media, 4; paronychia, 2; positive swab (diphtheria bacilli), 1; septic sores, 1.

CONDITIONS PRESENT ON ADMISSION.—Bronchitis, 6; broncho-pneumonia, 12; chronic otitis media, 2; conjunctivitis, 2; deaf mute, 4; enteritis, 1; laryngitis, 2; old cardiac disease, 1; rhinitis, 3; tubercular glands, 1; whooping cough, 2.

CORRECTED DIAGNOSES.—Doubtful, 2; Negative, 2.

OTHERS WHICH PROVED TO BE MEASLES.—Diphtheria, 3; pneumonia, 20; scarlet fever, 3; septicaemia, 1.

WHOOPIING COUGH.

Three patients were notified as whooping cough and 13 others as some other disease. Of those 16 patients, 12 recovered and 4 died.

SEX.—Male, 7; female, 9.

THE AVERAGE DAY OF DISEASE was 10·4 days; the average age, 2·8 years; and the average residence, 38·6 days.

TYPE OF DISEASE.—Mild, 5; moderate, 5; severe, 6.

FATALITY RATE.—Four, or 25 per cent., were fatal. Two patients died from broncho-pneumonia and 2 from marasmus.

COMPLICATIONS.—Bronchitis, 2; broncho-pneumonia, 2; otitis media, 1; paronychia, 1; rhinitis, 1.

OTHER CONDITIONS PRESENT ON ADMISSION.—Burn, 1; conjunctivitis, 1; marasmus, 3.

OTHERS WHICH PROVED TO BE WHOOPING COUGH.—Diphtheria, 1; meningitis, 1; ophthalmia, 1; pneumonia, 9; scarlet fever, 1.

TETANUS.

Case 1.—A farm worker had a hand badly injured with a chaff-cutter in October. After a residence of 10 weeks in a general hospital

he was discharged, but complaining of muscular pains in the back and abdominal muscles. After a few days the condition developed into a typical case of chronic tetanus with a long incubation period. With a small dose of antitoxin the condition subsided in 2 weeks.

Case 2.—A boy, aged 9 years, developed pain and stiffness of back and jaw muscles 3 weeks after getting a thorn into the foot. He recovered in a month after 40,000 units of antitoxin intravenously.

VENEREAL DISEASES.

At the beginning of the year 6 cases were in residence. Throughout the year 108 patients were admitted for indoor treatment. Of these, 51 were wrongly diagnosed. Of the 63 proved cases, 55 were discharged in varying stages of improvement, 2 died, and 6 were in hospital at the end of the year.

SEX.—Male, 36 ; female, 21.

AGE.—Under 1 year, 6 ; 1 to 10 years, 2 ; 11 to 20 years, 8 ; 21 to 30 years, 18 ; 31 to 40 years, 10 ; 41 to 50 years, 3 ; over 50 years, 10.

The average age of the proved cases was 29·2 years, and the average duration of residence, 35 days.

The indoor cases were :—Syphilis, 22 (congenital, 8) ; gonorrhoea, 24 ; syphilis and gonorrhoea, 3 ; gonorrhoeal arthritis, 2 ; gonorrhoeal warts, 2 ; septic balanitis, 1 ; gonococcal ophthalmia, 3.

CORRECTED DIAGNOSES.—Fifty-one, or 47·2 per cent., were wrongly diagnosed :—Abscess of penis, 1 ; cervicitis, 4 ; chronic nephritis, 1 (fatal) ; conjunctivitis, 3 ; dermatitis, 1 ; negative, 3 ; ophthalmia (simple), 22 ; septic scalp, 1 ; tubercular keratitis, 1 ; traumatic orchitis, 1 ; ulceration of legs, 1 ; vaginitis, 5 ; with baby, 1

COMPLICATIONS AND REASONS FOR INDOOR TREATMENT.—Anaemia, 1 ; aortic regurgitation, 1 ; balanitis, 2 ; boils, 1 ; broncho-pneumonia, 1 ; condylomata, 2 ; cystitis, 1 ; dermatitis, 2 ; epididymitis, 6 ; inguinal adenitis, 1 ; keratitis, 3 ; mental deficiency, 1 ; optic atrophy, 2 ; paraphimosis, 1 ; peri-urethral abscess, 2 ; phimosis, 2 ; preg-

nancy, 3 ; prematurity, 1 ; prostatic abscess, 1 ; retention of urine, 1 ; scrotal abscess, 1 ; tabes dorsalis, 2.

OPHTHALMIA NEONATORUM.—Of 28 cases notified as ophthalmia neonatorum, only 3 were gonococcal. Of those 3, 2 were mild and 1 moderate. In no case was ulceration present.

COUNTY MATERNITY HOSPITAL CASES.—Of 11 notified as ophthalmia neonatorum, only 1 was gonococcal in origin. Three others were admitted after discharge from the Maternity Hospital, but proved to be simple ophthalmias. Another baby, notified as syphilitic pemphigus, proved to be septic sores of the scalp.

FATAL CASES.—Two. A premature baby, notified as ophthalmia neonatorum, died from broncho-pneumonia. A male, aged 67 years, died from neuro-syphilis.

The number and nature of the cases attending at the outdoor clinic and the areas from which they came are shown in the following table. 265 new cases were registered :—206 males and 59 females.

VENEREAL DISEASES, 1936.

	Syphilis.	Gonorrhoea.	Syphilis and Gonorrhoea.	Soft Sore.	Others V. D.	Others Non V. D.	Total.	Indoor Cases.	Indoor Days.	Outdoor Attendances
County of Lanark,	89	152	8	—	10	70	329	90	2,265	3,387
Airdrie,	1	—	—	—	—	1	2	2	66	—
Coatbridge,	1	4	—	—	—	2	7	1	97	80
Hamilton,	9	12	—	—	—	6	27	5	208	617
Motherwell & Wishaw,	16	49	—	—	3	11	79	10	248	2,128
Edinburgh,	—	—	—	—	—	1	1	—	—	1
Total, ...	116	217	8	—	13	91	445	108	2,884	6,213

The following is a synopsis of the venereal diseases work since 1929 :—

	1929		1930		1931		1932		1933		1934		1935		1936	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>New Cases :—</i>	212	75	227	67	193	86	141	88	153	58	186	83	191	63	206	59
Syphilis, ...	62	22	46	16	33	26	29	17	22	16	31	21	20	12	25	15
Gonorrhoea, ...	83	28	107	25	92	32	67	34	77	19	99	24	95	11	109	13
Syphilis and Gonorrhoea, ...	3	2	6	9	5	5	—	—	3	1	3	3	3	2	2	1
Soft Sore, ...	1	—	—	—	4	—	1	—	—	—	1	—	—	—	—	—
Others V.D., ...	6	—	10	1	14	2	4	—	2	—	6	—	5	—	12	—
Others Non V.D.,	57	23	58	16	45	21	40	37	49	22	46	35	68	38	58	30
<i>Cases treated during Year :—</i>																
Syphilis, ...	104	41	102	42	90	49	78	39	115	65	69	42	60	42	77	39
Gonorrhoea, ...	120	39	142	39	135	46	104	46	108	26	135	33	150	22	192	25
Syphilis and Gonorrhoea, ...	5	3	10	11	8	7	4	3	3	1	6	3	7	5	6	2
Soft Sore, ...	1	—	1	—	4	—	1	—	—	—	1	—	1	—	—	—
Others V.D., ...	7	—	11	1	14	2	4	—	3	—	6	—	8	—	13	—
Others Non V.D.,	64	23	55	20	46	22	40	39	51	25	55	37	71	43	60	31
Outdoor Attend- ances, ...	2973	890	4056	1218	3808	815	2555	544	3153	502	4143	745	5296	502	5552	661
Indoor Cases, ...	67	43	70	56	55	52	54	75	47	52	71	69	49	61	57	51
Indoor Days, ...	1432	1331	1665	1672	1111	1694	1598	2168	1226	1376	1705	2260	1351	1664	1677	1207
Salvarsan Sub- stitute Injections,	1489	554	1716	655	1377	764	1241	615	922	495	1185	670	1153	502	1160	401
No. of Operations,	17	2	18	1	9	1	5	3	13	3	23	3	10	5	6	1
„ Wassermann,	257	117	284	89	281	116	259	97	297	118	282	113	198	108	183	82
„ Smears Spiro- chaetes, ...	2	—	3	—	—	—	2	—	5	—	11	—	7	—	3	—
„ „ Gonococci,	83	63	116	89	116	76	107	82	101	62	165	117	148	155	155	146

Note.—Included under Salvarsan Substitute Injections are 788 Bismuth Injections.

MISCELLANEOUS CASES DISCHARGED DURING 1936.

REC. DIED.				REC. DIED.			
Adenitis, ...	...	6	1	Menorrhagia, ...	...	2	—
Anaemia, ...	...	1	2	Negative, ...	...	4	—
Asthma, ...	...	1	—	Parotitis, ...	...	2	—
Burn, ...	...	1	—	Pernicious vomiting of pregnancy, ...	...	—	1
Cancers, ...	...	—	4	Poliomyelitis, ...	...	3	—
Cardiac disease, ...	...	1	5	Positive agglutination (Flexner), ...	...	3	—
Cerebral tumour, ...	...	—	1	Pulmonary diseases, ...	...	9	2
Chickenpox, ...	...	2	—	Retro-pharyngeal abscess, ...	...	—	1
Cold, ...	...	2	—	Rheumatism, ...	...	4	—
Conjunctivitis, ...	...	1	—	Septicaemia, ...	...	—	1
Constipation, ...	...	1	—	Septic conditions (minor), ...	...	16	—
Diabetic conditions, ...	...	3	1	Skin diseases, ...	...	21	—
Enteritis, ...	...	5	2	Sore throat, ...	...	17	—
Gastritis, ...	...	1	—	Sprained ankle, ...	...	1	—
Hydrocele, ...	...	1	—	Others, ...	...	7	—
Influenza, ...	...	1	—				
Kidney diseases, ...	...	2	2				

ELECTRICAL DEPARTMENT.

During the year 1,769 cases were photographed. These were:—Chest, 1,632; chest and kidneys, 3; chest and pelvis, 1; chest and skull, 1; chest and spine, 4; abdomen, 11; pelvis, 10; skull, 6; spine, 16; bones (injury), 50; bones (disease), 28; kidneys and bladder, 4; barium enema, 1; barium meal, 2.

The sources from which the 1,769 cases came were as follows:—

Centres and Dispensaries.				Institutions, etc.			
Baillieston, ...	...	3		County Hosp., Motherwell, ...	...	514	
Bellshill, ...	...	143		Bellshill Hospital, ...	...	18	
Blantyre, ...	...	37		Hartwood Mental Hosp., ...	...	1	
Calderbank, ...	...	1		Kirklands Mental Hosp., ...	...	1	
Cambuslang, ...	...	74		Lanark Hospital, ...	...	7	
Chapelhall, ...	...	5		Lightburn Hospital, ...	...	7	
Larkhall, ...	...	50		Roadmeetings Hospital, ...	...	148	
Lesmahagow, ...	...	1		Omoa House, ...	...	1	
Mossend, ...	...	1		Longriggend Sanatorium, ...	...	120	
Newarthill, ...	...	1		Shotts Sanatorium, ...	...	154	
Newmains, ...	...	6		Airdrie Burgh, ...	...	57	
New Stevenston, ...	...	2		Hamilton Burgh, ...	...	6	
Shotts, ...	...	120		Medical Practitioners, ...	...	115	
Strathaven, ...	...	2		Public Health Department, ...	...	144	
L'shire Orthopaedic Clinic, ...	...	29		V.D. Centre, ...	...	1	

LABORATORY WORK.

The following table shows the number of specimens examined during the year by the County Laboratory and the Hospital Laboratory.

	County Laboratory.	Hospital Laboratory.	Total.
Throat and nose swabs (B. diphtheria),	6,346	553	6,899
Swabs for virulence,	115	—	115
Agglutinations (enteric),	104	—	104
Blood cultures (enteric),	49	—	49
Urines (enteric),	102	—	102
Faeces (enteric),	110	—	110
Blood cultures (haem. streptococci, etc.),	237	—	237
Cervical swabs (puerperal),	115	100	215
Blood counts,	—	325	325
Cerebro-spinal fluid,	102	115	217
Throat swabs (haem. streptococci, etc.),	4,086	—	4,086
Sputa,	146	56	202
Miscellaneous,	22	12	34
Pleural effusion,	45	40	85
Wassermann,	434	—	434
Cultures, etc. (gonorrhoea),	59	—	59
Urethral and cervical smears (gonorrhoea),	—	215	215
Eye smears (gonorrhoea),	—	27	27
Pus,	80	42	122
Estimation of blood sugar,	—	27	27
Urine (cultures, etc.),	22	115	137
Tinea,	2	—	2
Pathological specimens,	61	—	61
Total,	12,237	1,627	13,864

OPERATIONS.

During the year the following operations were performed in the hospital :—

DISEASE.		OPERATION.	RECOVERED.	DIED.	TOTAL.
Scarlet Fever	Abscesses	Opening	7	—	7
	Caries teeth	Extraction	1	—	1
	Dacryocystitis	Opening	1	—	1
	Mastoiditis	Mastoidectomy	4	—	4
	Mastoid sinus	Scraping	1	—	1
	Septic finger	Incision	1	—	1
	Supp. adenitis	Incisions	2	—	2
Diphtheria	Laryngeal stenosis	Tracheotomy	1	—	1
		Intubation	—	1	1
	Supp. adenitis	Incision	1	—	1
	Abscesses	Opening	2	1	3
	Carriers	Tonsillectomy	3	—	3
Puerperal Sepsis	Abscesses	Opening	7	1	8
	Mastitis	Opening	2	—	2
	Pelvic abscess	Incisions	2	—	2
	Pelvic cellulitis	Laparotomy	2	2	4
Erysipelas	Supp. choroiditis	Evisceration of eyeball	1	—	1
	Abscesses	Opening	7	—	7
	Cellulitis	Incisions	1	—	1
	Sinusitis	Puncturing antrum	1	—	1
Tuberculosis	Empyema	Opening sinus	1	—	1
	Ulcer of face	Scraping	1	—	1
	Gland abscess	Opening	3	—	3
Pneumonia	Abscesses	Opening	9	—	9
	Cellulitis	Incisions	—	1	1
	Empyema	Rib resection	8	4	12
		Tube inserted	2	2	4
Measles	Septic finger	Incision	1	—	1
	Laryngeal stenosis	Tracheotomy	—	1	1
	Sinus neck	Scraping	1	—	1
	Abscesses	Opening	3	—	3
Venereal Diseases	Condylomata	Excision	1	—	1
	Phimosis	Circumcision	1	—	1
	Abscesses	Opening	5	—	5
Others	Abscesses	Opening	21	1	22
	Caries teeth	Extraction	1	—	1
	Carriers	Tonsillectomy	3	—	3
	Bronchiectasis	Lipiodol injection	1	—	1
	Supp. adenitis	Incisions	5	1	6
	Ludwig's angina	Incisions	1	—	1
	Laryngeal stenosis	Tracheotomy	—	1	1
	Pyelitis	Cystoscopic exam.	1	—	1
	Hydrocele	Radical operation	1	—	1
	Cellulitis	Incisions	10	—	10
	Mastitis	Opening	27	—	27
	Osteomyelitis	Rib resection	1	—	1
	Pulmonary abscess	Rib resection	—	1	1
	Empyema	Rib resection	8	2	10
		Tube inserted	1	—	1
		Sinus scraped	1	—	1
	Septic finger	Incisions	5	—	5
			170	19	189

In addition, there were 202 aspirations, 202 lumbar or cisternal punctures, 137 pneumothorax refills, and 19 blood transfusions.

The following operations and consultations were undertaken by the consulting staff :—

Consulting Surgeon :—Radical operation for hydrocele, 1 ; consultations, 6.

Consulting Gynaecologist.—Laparotomy, 3 ; cystoscopic examination 1 ; consultations, 2.

Consulting Otologist.—Mastoidectomy, 2 ; tonsillectomy, 5.

Consulting Ophthalmologist.—Eye examinations, 10.

Consulting Physician.—Consultations, 9.

THE STAFF.

On 31st December, 1936, the indoor staff comprised 1 physician-superintendent, 2 assistant medical officers, 1 matron, 12 sisters, 64 probationers, and 35 maids.

The outdoor staff consisted of 1 engineer, 3 firemen, 1 gardener, 5 assistant gardeners, 2 chauffeurs, 1 V.D. attendant, 2 X-ray attendants, 2 clerks, 1 telephone operator, and 1 storekeeper.

The total staff numbered 134.

LECTURES.—From October till April lectures and demonstrations on elementary anatomy and physiology, hygiene, fevers, the theory and practice of nursing, and medical and surgical nursing, in accordance with the syllabus of the General Nursing Council, were given by the medical staff and matron. The course in cooking and dietetics was given by the Education Authority.

Twenty-six probationers passed the Final Examination and were granted the General Nursing Council Certificate for Fever Nursing, whilst 15 others completed the Primary Examination under this scheme. Fourteen probationers were awarded cookery certificates by the Education Authority.

STAFF ILLNESSES.—One assistant medical officer, 45 probationers, and 7 maids were warded for the following illnesses :—Abscesses, 5 ; anaemia, 1 ; burn, 1 ; chlorosis, 1 ; cold, 2 ; conjunctivitis, 1 ; dermatitis, 3 ; diphtheria, 2 ; eczema, 1 ; enteric fever, 1 ; enteritis, 1 ; influenza, 1 ; insect bites, 1 ; measles, 2 ; menorrhagica, 1 ; negative, 2 ; parotitis, 1 ; pyelitis, 1 ; rubella, 1 ; septic fingers, 5 ; sinusitis, 1 ;

sore throat, 12; sprained ankle, 3; sweat rash, 1; tonsillitis, 1; tuberculosis, 1 (fatal).

The sick staff lost 774 working days.

INOCULATIONS.—Four sisters, 26 probationers, and 4 maids were vaccinated with T.A.B. vaccine against the enteric group of diseases.

A probationer, who had 2.3 c.c. of T.A.B. vaccine in July, 1936, developed a mild attack of enteric fever two months later.

One sister and 18 probationers were re-vaccinated against smallpox.

IMMUNISATION.—Of 145 Schick Tests, 35 were positive, and, of these, 31 were immunised. Two probationers developed diphtheria. One was Schick negative and non-immunised. The other was Schick positive at the end of 1933, and had 3.5 c.c. of toxoid-antitoxin floccules. On re-testing six months later, this nurse was again positive, and had a further course of immunisation. She was Schick negative at the end of another six months.

Of 118 Dick Tests, 14 were positive, and 12 were immunised. No member of the staff developed scarlet fever.

X-RAY EXAMINATION OF PROBATIONERS.—Forty-two members of the staff had an X-ray picture of the chest taken.

Swabs from Nurses' Throats.

DIPHTHERIA PAVILIONS.—Of 119 nurses, a positive swab of the throat was obtained in 16.8 per cent. The average number of swabs taken from each was 9.6. In 11 of the 20 positives obtained the swab was positive once. When a positive was obtained a second time a virulence test was done. Of 5 virulence tests, 3 were virulent and 2 avirulent.

SCARLET FEVER PAVILIONS.—Of 124 nurses, the percentage of individuals showing haemolytic streptococci in the throat was 25.8. The average number of swabs taken from each was 7.1. In 19 of the 32 nurses the swab was positive only once.

PUERPERAL FEVER PAVILIONS.—Of 30 nurses, haemolytic streptococci was present in the throat in 40 per cent. The average number of swabs taken from each was 9.2. In 7 of the 12 nurses the swab was positive only once.

PNEUMONIA PAVILIONS.—Of 25 nurses, pneumococci was present in the throat in 20 per cent. The average number of swabs taken from each was 4.1. Only in one instance was a positive obtained more than once.

AMBULANCE WORK.

		Ad- missions.	Dis- charges.	Tuber- culosis.	Disin- fections.	Others.	Total.
Patients,	...	1,677	856	510	—	14	3,057
Journeys,	...	1,482	256	176	40	86	2,040
Mileages,	...	22,599	7,245	5,877	461	991	37,173

STATISTICS.

TABLE I.—ADMISSIONS (AS NOTIFIED) AND DISCHARGES DURING 1936,
WITH THE NUMBERS IN HOSPITAL AT THE BEGINNING AND END
OF THE YEAR.

Disease.	In Hospital, 1st January, 1936.		Admitted.		Discharged.				Remaining in Hospital, 31st Dec., 1936.	
					Recovered.		Died.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Scarlatina, ...	14	20	208	242	194	232	2	2	26	28
Diphtheria, ...	14	20	235	260	203	231	10	8	36	41
Enteric Fever,	—	—	12	16	10	14	—	1	2	1
Erysipelas, ...	1	—	36	43	34	38	1	2	2	3
Puerperal Fever,	—	19	—	109	—	96	—	14	—	18
Tuberculosis, ...	—	—	52	97	43	89	9	8	—	—
Measles, ...	—	—	15	28	15	28	—	—	—	—
Whooping Cough,	—	—	2	1	—	1	2	—	—	—
Venereal Diseases,	4	2	59	49	56	49	2	1	5	1
Pneumonia, ...	15	9	222	134	185	104	38	26	14	13
Others, ...	6	9	73	143	60	121	15	17	4	14
<div><div><div>5420</div><div>9141,122</div><div>1332,036</div></div><div><div>8001,003</div><div>1,803</div></div><div><div>7979</div><div>158</div></div><div><div>89119</div><div>208</div></div><div>2,1692,169</div></div>										

TABLE II.—ADMISSIONS AND DISCHARGES IN EACH MONTH OF THE YEAR 1936.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Admitted, ...	168	178	205	162	160	124	144	123	159	209	210	194	2,036
Discharged— Recovered, ...	133	144	158	196	154	117	147	107	130	143	174	200	1,803
Died, ...	14	12	9	16	21	13	15	13	8	16	8	13	158

TABLE III.—AGE AND SEX OF PATIENTS DISCHARGED DURING THE YEAR 1936, WITH THE FATALITY RATE.

SCARLET FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1, ...	—	—	—	—	—	—	—	—	—
— 2, ...	8	2	20.0	6	1	14.2	14	3	17.6
— 3, ...	15	—	—	8	—	—	23	—	—
— 4, ...	16	—	—	20	1	4.7	36	1	2.7
— 5, ...	15	—	—	22	—	—	37	—	—
— 6, ...	27	—	—	24	—	—	51	—	—
— 7, ...	16	—	—	22	—	—	38	—	—
— 8, ...	8	—	—	15	—	—	23	—	—
— 9, ...	11	—	—	10	—	—	21	—	—
— 10, ...	10	—	—	8	—	—	18	—	—
— 15, ...	29	1	3.3	42	—	—	71	1	1.3
— 20, ...	8	—	—	12	—	—	20	—	—
Over 20, ...	10	—	—	13	—	—	23	—	—
Total, ...	173	3	1.7	202	2	0.9	375	5	1.3

TABLE III (*contd.*).—DIPHThERIA.

Age.	Male.			Female.			Total		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1, ...	1	—	—	—	—	—	1	—	—
— 2, ...	1	—	—	—	—	—	1	—	—
— 3, ...	3	—	—	1	—	—	4	—	—
— 4, ...	6	2	25.0	7	1	12.5	13	3	18.7
— 5, ...	11	1	8.3	5	1	16.6	16	2	11.1
— 6, ...	14	—	—	6	1	14.2	20	1	4.7
— 7, ...	7	1	12.5	11	—	—	18	1	5.2
— 8, ...	17	—	—	16	1	5.8	33	1	2.9
— 9, ...	16	2	11.1	18	—	—	34	2	5.5
— 10, ...	6	—	—	13	—	—	19	—	—
— 20, ...	26	2	7.1	44	2	4.3	70	4	5.4
Over 20, ...	3	—	—	13	—	—	16	—	—
Total, ...	111	8	6.7	134	6	4.2	245	14	5.4

TABLE IV.—THE STAGE OF THE DISEASE IN WHICH PATIENTS DISCHARGED IN 1936 WERE ADMITTED TO HOSPITAL.

Disease.	Days of 1st Week.							Week of Illness.				Total
	1	2	3	4	5	6	7	1st.	2nd.	3rd.	4th	
Scarlet Fever, ...	26	117	107	68	24	18	9	369	6	4	1	380
Diphtheria, ...	23	76	66	48	27	11	4	255	3	1	—	259
Pneumonia, ...	9	23	41	43	34	16	20	186	32	7	—	225
Enteric Fever, ...	—	—	1	—	3	2	—	6	11	2	1	20

TABLE V.—COMPLICATIONS OBSERVED IN PATIENTS DISCHARGED DURING 1936.

Scarlet Fever.	Suppurative Cervical Adenitis.	Non-Suppurative Cervical Adenitis.	Otitis Media. Purulenta.	Rhinorrhoea.	Cardiac Complications.	Nephritis.	Arthritis	Mastoiditis.	Pulmonary Complications.	Skin Conditions.	Others.
In 375 Recovered Cases,	2	50	16	20	12	6	8	4	4	2	62
In 5 Fatal Cases, ...	—	1	—	—	—	2	—	—	3	—	—
In 380 Cases, ...	2	51	16	20	12	8	8	4	7	2	62
Percentage, ...	0.5	13.4	4.2	5.2	3.1	2.1	2.1	1.0	1.8	0.5	16.3

TABLE V (contd.).

Diphtheria.	Adenitis.	Rhinitis.	Otitis Media.	Pneumonia.	Paralysis, all Forms.	Nephritis.	Albuminuria.	Serum Rashes.	Others.
In 245 Recovered Cases, ...	1	—	3	—	4	—	3	40	2
In 14 Fatal Cases, ...	—	1	—	2	7	—	2	2	11
In 259 Cases, ...	1	1	3	2	11	—	5	42	13
Percentage, ...	0.3	0.3	1.1	0.7	4.2	—	1.9	16.2	5.0

TABLE VII.—DISCHARGES SINCE OPENING OF HOSPITAL.

292A

Years.	Enteric Fever.		Scarlet Fever.		Diphtheria.		Erysipelas.		Puerperal Fever.		Measles.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Meningitis.		Venereal Diseases.		Pneumonia.		Typhoid.		Other Diseases.		Total.	
	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.
1897	11	1	43	2	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	2	1	58	5
1898	155	23	296	12	11	—	1	1	—	—	16	4	—	—	—	—	—	—	—	—	—	—	—	—	19	—	498	40
1899	201	24	536	20	15	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	1	810	50
1900	134	14	592	15	16	2	5	—	—	1	7	—	—	—	—	—	—	—	—	—	—	—	—	—	31	3	785	35
1901	209	21	640	22	20	7	8	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	30	—	908	51
1902	183	27	438	20	14	2	10	1	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	84	—	735	50
1903	140	24	179	4	15	3	13	2	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	12	—	362	33
1904	88	13	171	7	44	9	12	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	347	5	664	35
1905	241	22	109	5	42	8	12	1	3	1	4	4	21	1	—	—	—	—	—	—	—	—	—	—	108	3	540	45
1906	192	19	241	4	44	11	4	2	—	1	6	—	62	13	—	—	1	5	—	—	—	—	—	—	65	2	616	57
1907	91	9	313	9	192	16	9	1	3	—	2	1	77	19	—	—	28	58	—	—	—	—	—	—	91	6	806	119
1908	107	13	425	8	170	17	12	3	3	2	9	2	55	10	—	—	21	30	—	—	—	—	—	—	56	6	858	91
1909	99	3	781	24	129	16	10	1	8	2	3	—	1	—	—	—	2	4	—	—	—	—	—	—	56	5	1,089	55
1910	117	5	678	16	226	22	13	1	5	8	7	—	28	—	—	—	1	—	—	—	—	—	—	—	52	10	1,127	62
1911	78	11	617	18	232	18	18	—	5	5	3	—	1	1	10	—	1	2	—	—	—	—	—	—	61	—	1,141	62
1912	58	10	748	22	136	15	11	—	3	5	6	—	2	2	4	—	—	1	—	—	—	—	—	—	76	—	1,270	60
1913	87	5	724	15	150	13	10	1	2	4	1	1	11	3	41	5	1	—	—	—	—	—	—	—	61	—	1,316	55
1914	75	10	833	27	228	38	15	4	9	2	2	1	5	4	37	4	1	1	—	—	—	—	—	—	27	—	1,437	102
1915	82	10	641	20	214	29	18	6	9	1	5	3	15	5	47	4	11	9	—	—	—	—	—	—	36	—	1,448	97
1916	82	10	1,017	23	214	27	13	—	8	7	1	—	6	5	63	2	3	5	—	—	—	—	—	—	84	5	1,491	84
1917	77	14	563	19	185	25	14	1	7	3	20	1	2	1	109	2	6	13	98	—	—	—	—	—	4	—	1,111	90
1918	42	15	269	11	135	18	11	4	3	3	29	7	7	2	83	10	1	4	231	—	—	—	—	—	13	—	1,158	109
1919	82	11	450	12	180	14	13	—	15	10	27	4	7	4	94	3	6	10	104	1	—	—	—	—	6	—	1,285	107
1920	39	3	985	10	191	19	24	4	25	11	15	3	—	—	103	7	1	13	124	—	33	17	5	—	226	18	1,772	105
1921	76	14	997	19	167	22	31	7	41	13	2	—	—	—	136	9	1	4	122	3	40	8	19	—	221	10	1,853	109
1922	29	3	979	18	147	31	31	5	43	14	22	6	—	—	132	10	—	4	66	4	79	25	11	—	249	12	1,788	132
1923	42	3	879	19	186	18	38	4	34	17	5	1	10	1	103	16	1	1	77	3	45	18	9	—	203	10	1,632	111
1924	21	1	818	16	189	18	27	1	35	13	39	11	20	1	111	22	—	10	54	7	65	25	10	—	295	23	1,684	148
1925	14	3	850	16	179	11	39	4	31	14	6	1	20	4	90	7	—	2	93	1	70	19	11	—	297	30	1,650	112
1926	13	2	707	7	237	13	41	7	33	20	39	2	10	3	60	10	1	3	61	2	114	31	8	—	377	35	1,701	135
1927	1	1	465	3	280	7	41	4	56	24	6	1	6	1	47	13	—	6	76	3	135	41	16	—	470	38	1,599	142
1928	12	2	661	5	353	20	40	4	73	31	78	5	13	3	41	15	1	7	114	2	144	52	27	—	577	32	2,134	178
1929	9	1	676	2	325	12	46	6	87	22	14	—	6	2	22	9	6	4	88	2	197	69	14	—	659	40	2,149	169
1930	71	2	757	3	453	21	51	4	92	25	24	8	42	3	17	20	1	4	97	3	217	77	6	—	769	42	2,497	212
1931	7	3	712	2	277	10	36	4	104	21	21	4	58	—	16	10	2	3	76	4	205	71	5	—	881	41	2,300	173
1932	—	—	1,081	10	339	24	45	3	95	18	41	7	55	3	7	12	8	5	75	2	192	57	7	—	597	24	2,542	165
1933	42	—	1,184	7	274	25	54	8	137	22	—	—	79	6	8	16	3	9	57	—	125	35	2	—	607	34	2,572	162
1934	5	—	872	9	258	16	77	5	76	25	41	5	117	—	6	10	6	7	90	2	187	43	1	—	592	41	2,328	163
1935	21	7	397	5	193	15	43	2	80	16	5	2	136	—	3	11	—	12	50	1	160	61	1	—	608	37	1,697	169
Total	3,033	359	24,274	486	6,560	596	900	103	1,127	361	518	86	872	97	1,390	227	114	236	1,753	40	2,008	649	436	—	10,188	639	53,173	3,879
Fatality per cent.	10.5		1.9		8.3		10.2		24.2		14.2		10.0		14.0		2.2		24.4		—		5.9		6.7			

TABLE VI.—ADMISSIONS (AS NOTIFIED) SINCE OPENING OF HOSPITAL.

Year.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Measles.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Meningitis.	Veneral Diseases.	Tinea.	Pneumonia.	Other Diseases	Total.
1897	19	70	—	1	—	9	—	—	—	—	—	—	5	104
1898	211	349	12	2	2	13	—	—	—	—	—	—	22	611
1899	235	571	21	5	—	1	—	—	—	—	—	—	16	849
1900	145	638	21	6	2	6	—	—	—	—	—	—	14	832
1901	291	621	31	7	—	—	—	—	—	—	—	—	14	964
1902	160	431	16	12	—	6	—	—	—	—	—	—	86	711
1903	174	187	22	14	1	2	—	—	—	—	—	—	17	417
1904	112	155	53	13	1	3	—	—	—	—	—	—	329	666
1905	300	114	66	12	4	1	23	—	—	—	—	—	93	613
1906	214	283	72	8	2	6	76	—	8	—	—	—	16	685
1907	99	317	283	4	9	2	106	—	94	—	—	—	16	930
1908	131	508	206	14	6	9	53	—	61	—	—	—	23	1,011
1909	109	834	164	11	10	3	1	—	10	—	—	—	9	1,151
1910	148	696	267	16	12	1	27	—	5	—	—	—	15	1,187
1911	122	670	248	16	12	4	—	—	7	—	67	—	47	1,193
1912	106	888	193	11	9	5	5	13	2	—	73	—	47	1,352
1913	126	838	246	12	6	2	16	37	7	2	61	—	15	1,368
1914	108	958	361	20	11	4	11	44	7	5	27	—	13	1,569
1915	115	750	286	25	12	4	18	65	29	4	26	—	30	1,364
1916	95	1,030	251	12	16	1	16	45	17	2	—	—	14	1,499
1917	92	642	191	17	13	22	3	120	26	99	4	—	26	1,255
1918	105	313	241	13	7	29	7	93	14	236	13	—	204	1,275
1919	118	595	280	16	28	24	11	87	24	111	6	—	155	1,455
1920	59	1,128	313	33	39	10	—	107	29	124	5	55	48	1,950
1921	107	1,047	250	38	54	1	—	156	12	123	19	51	50	1,908
1922	49	1,093	234	39	56	12	—	133	12	87	11	124	60	1,910
1923	61	931	254	47	56	7	11	122	9	91	5	87	67	1,748
1924	35	878	295	36	45	38	24	138	8	80	10	133	110	1,830
1925	25	922	285	44	44	5	24	84	2	106	11	123	96	1,771
1926	14	791	406	53	65	33	13	75	4	80	8	197	135	1,874
1927	9	452	419	47	88	11	7	62	5	105	16	259	193	1,673
1928	20	783	571	50	108	70	16	48	17	158	27	290	163	2,321
1929	11	732	643	60	111	4	8	28	10	111	14	347	214	2,293
1930	107	841	699	64	132	17	42	38	5	121	6	386	249	2,707
1931	13	824	555	57	132	22	58	25	5	111	5	383	240	2,430
1932	6	1,207	482	53	159	25	58	9	26	117	7	357	185	2,691
1933	63	1,353	497	81	160	—	63	15	32	99	2	257	163	2,785
1934	14	928	435	83	117	42	117	8	33	141	1	330	178	2,427
1935	48	445	344	57	127	5	130	13	37	108	1	305	191	1,811
1936	28	450	495	79	109	43	125	24	37	108	3	356	179	2,036
	4004	27263	10708	1188	1765	502	1069	1589	594	2329	428	4040	3747	59,226

LIGHTBURN JOINT-HOSPITAL.

Annual Report, 1936.

Physician-Superintendent—A. W. M. BATTERSBY,
L.R.C.P. & S.(Ed.), D.P.H.

Matron—Miss M. TOWNSEND, R.R.C.

The admissions and discharges during the year, classified according to the disease notified, and to the constituent authority, are shown in Table A and in Table B respectively.

TABLE A.

Disease.		In Hospital, 1st Jany., 1936.	Discharged.			In Hospital, 31st Dec., 1936.
			Admitted.	Recovered.	Died.	
Scarlatina,	...	34	159	159	1	33
Diphtheria,	...	22	108	109	3	18
Pneumonia,	...	15	177	139	39	14
Erysipelas,	...	5	31	30	5	1
Meningitis,	...	—	2	1	1	—
Continued Fever,		1	—	—	1	—
*Other Diseases,		—	7	6	1	—
		77	484	444	51	66

* 1 pneumonia and empyema ; 1 septicaemia ; 1 tonsillitis ; 1 measles ; 1 nephritis ; 1 pleurisy ; and 1 gall bladder colic.

TABLE B.

Disease.						County of Lanark.	City of Glasgow.
Scarlatina,	...	...	...	...	...	141	18
Diphtheria,	...	...	...	...	...	106	2
Pneumonia,	...	...	...	...	...	144	33
Erysipelas,	...	...	...	...	...	29	2
Meningitis,	...	...	...	...	...	2	—
Enteric Fever,	...	...	...	...	...	—	—
Other Diseases,	...	...	...	...	...	7	—
						429	55

General.

Compared with last year's figures, there was a decrease of 237 in the total number of cases admitted, there being a decrease in the scarlet fever cases to the extent of 125 and diphtheria 111. Pneumonia cases were the same as last year and erysipelas 3 less.

At commencement of the year there were 77 cases in residence. The number of admissions was 484, making a total of 561 cases. Of these, 444 were discharged well, and 51 died, leaving 66 cases in hospital on 31/12/36.

The fatality rate, calculated on all cases discharged, was 11·4 per cent., an increase of 5·4 per cent. compared with the rate for 1935 (6 per cent.). This figure is based on all cases dying in hospital, including 11 cases which were moribund on admission and survived only a few hours.

The average monthly rate of admission was 40, the lowest number of admissions occurring in March and the highest number in January, the figures being 7 and 66 respectively.

The average number of patients resident was 53, with an average residence of 37 days.

The highest daily number was 86 (on 4th February), and the lowest daily number was 19 (on 1st April).

Lack of proper isolation accommodation is still keenly felt and adds difficulties to the administration of the hospital. I feel that the provision of a modern isolation block should receive careful consideration. The decrease in the number of admissions was in large measure due to cross-infection.

No operations were performed under a general anaesthetic, and only 1 minor operation under a local anaesthetic. Forty cases had treatment necessitating local anaesthetics.

One post-mortem examination was performed on a patient who had had a low grade septicaemia.

X-RAY EXAMINATIONS.—Seven cases were X-rayed at Motherwell.

One case of laryngeal diphtheria required to have a tracheotomy performed, but the patient died next day from cardiac paralysis. During the year the consulting physician was called in once, and the surgeon on 6 occasions.

Scarlet Fever.

Thirty-four cases of scarlet fever were in hospital at the beginning of the year. The number of cases admitted was 159. In 3 cases the diagnosis was revised. Of the true scarlet cases, 156 were discharged well, 1 died, leaving 33 cases in residence at end of year.

REMOVAL TO HOSPITAL was carried out in 95.4 per cent. of cases in the first week of illness, 1.3 per cent. in the second week, and 3.3 per cent. in the third week or later. The average duration of disease on admission was 3.5 days.

THE AVERAGE DURATION OF RESIDENCE of mild cases was 40.1 days; of moderate cases, 51 days; of severe cases, 53 days; of septic cases, 50 days; and of fatal cases, 26 days.

REVISED DIAGNOSIS.—Diagnosis revised in 3 cases as follows—1 scarlet fever contact; 1 food rash; and 1 measles (transferred to Motherwell Hospital).

TYPE OF DISEASE.—The disease generally was of a moderate type as in 1935. Of cases discharged, 19.4 per cent. were classified as mild, 78.5 per cent. as moderately severe, 0.64 per cent. as severe, and 0.64 per cent. as septic.

THE FATALITY RATE (calculated on discharges) was 0·63 per cent. The only fatal case died on 14th day of residence from diphtheria (cardiac paralysis).

COMPLICATIONS.—Eighty-four cases, or 54·07 per cent. of discharges, developed one or more complications as follows :—

Adenitis.—Twelve cases, or 7·5 per cent. of discharges, had glandular enlargement.

Otorrhoea.—Twelve cases, or 7·5 per cent. developed otitis.

Rhinitis.—Thirteen cases, or 8·1 per cent., developed rhinitis.

Arthritis.—Six cases, or 3·7 per cent., developed joint pains.

Renal Complications.—(a) 15 cases, or 9·4 per cent., developed albuminuria ; (b) 2 cases, or 1·2 per cent., developed nephritis.

Cardiac Involvement.—Five cases, or 3·1 per cent., developed endocarditis ; 4 cases, or 2·5 per cent., developed arrhythmia.

Sepsis.—Septic fingers, 6 ; boils, 2 ; abscess (thigh), 1 ; cervical abscesses, 2 (both incised).

Other Complications.—Tonsillitis, 9 ; blepharitis, 3 ; serum rash, 13 ; post-nasal discharge, 1 ; bronchial catarrh, 5. One case relapsed in the sixth week.

ADDITIONAL CONDITIONS ON ADMISSION.—Burn, 1 ; strabismus, 1 ; skin sepsis, 21 ; adenitis, 18 ; nasal discharge, 17 ; bronchitis, 3 ; sycosis, 1 ; ear discharge, 5 ; and endocarditis, 2.

MIXED INFECTIONS (excluding fatal case).—Clinical diphtheria, 1 ; bacteriological diphtheria, 21.

ANTITOXIN.—Many cases were given scarlet fever antitoxin (Parke, Davis & Co.). The dose varied with the severity of the disease. A prophylactic dose was given to the cases where the diagnosis was altered. The amounts injected were as follows :—33 cases had 5 c.c. or less ; 78 cases had 5 to 10 c.c. ; and 5 cases from 10 to 15 c.c. The fatal case died from diphtheric paralysis on fourteenth day of residence. No anti-scarlet serum had been given as the scarlatinal attack was of a mild type.

Thirteen cases developed a serum rash, or 10 per cent. of cases which were given serum (either A.D.S., scarlet serum, or both).

Many cases were also given anti-diphtheria serum in treatment of the disease and to clear up discharges :—26 had 5,000 units or less ; 34 had 5,000 to 10,000 units ; 11 had 10,000 to 20,000 units ; 1 had 28,000 units ; 1 had 44,000 units ; and 1 had 60,000 units.

A number of cases received only anti-diphtheria serum in treatment of the disease and to clear up discharges :—10 had 4,000 to 10,000 units ; 12 had 10,000 to 20,000 units ; 2 had 22,000 units ; 3 had 30,000 units ; and 1 had 40,000 units.

In view of the large number of serum rashes in the early months of the year, Parke Davis Serum was substituted for Burroughs, Wellcome & Co.'s, with satisfactory result.

107 cases were given calcium sulphide, and 5 proseptasine.

Diphtheria.

Twenty-two cases of diphtheria were in the hospital at the beginning of the year. 108 cases were admitted, of whom 4 were diagnosed wrongly. Of the proved cases, 105 were discharged well, 2 died, leaving 18 in residence at the end of the year.

Of the wrongly diagnosed cases one died from broncho-pneumonia.

REMOVAL TO HOSPITAL.—This was carried out within the first three days of illness in 55·05 per cent. of cases, and 44·9 per cent. of cases were removed after third day.

AVERAGE DURATION OF RESIDENCE.—In the recovered cases the residence was 48·9 days ; in the fatal cases the residence was 23·5 days.

The average number of days before removal to hospital was 3·5 days in the recovered cases, and 2·5 days in the fatal cases.

ALTERED DIAGNOSES.—In 4 cases the diagnosis was altered as follows :—Tonsillitis, 1 ; scarlet fever, 1 ; bronchial catarrh, 1 ; broncho-pneumonia, 1 (died).

TYPE OF DISEASE.—The virulence of infection appears to vary, the cases admitted in the summer months appearing to be of a more virulent type.

FAUCIAL DIPHTHERIA.—In 100 cases, excluding the fatal cases, the site of the lesion was the fauces.

Mild.—Twenty-three cases were of a mild type, with little toxaemia. The average amount of antitoxin given was 11,360 units, and the average residence was 43·6 days.

Complications.—Adenitis, 3; serum rash, 1; abscess, 1 (incised); phenol burn, 1; skin sepsis, 2.

Moderate.—Seventy-five cases were classified as moderate, associated with some toxaemia. The average amount of antitoxin given was 26,116 units and the average period of residence was 36·4 days.

Complications.—Adenitis, 3; serum rash, 23; cardiac irregularity, 7; otitis media, 2; albuminuria, 6; tonsillitis, 2; arthritis, 2; rhinitis, 6; abscesses 2 (1 incised); skin sepsis, 15; conjunctivitis, 2; vaginitis, 1.

Severe.—Two cases were classified as severe—extensive local lesion and profound toxaemia. Amount of antitoxin given was 97,000 units. Average duration of residence was 45·5 days.

Complications.—Albuminuria, 1.

LARYNGEAL DIPHTHERIA.—Excluding fatal cases, 3 cases showed the larynx alone involved. The average amount of antitoxin given was 26,000 units, and the duration of residence was 59·3 days.

HIGH TRACHEOTOMY for obstruction in laryngeal diphtheria was performed in 1 case—died the following day from cardiac paralysis.

NASAL CASES numbered 1.—The dose of antitoxin given was 10,000 units and duration of residence was 48 days.

NASAL AND FAUCIAL CASES numbered 1. Recovered. 20,000 units (A.D.S.) were given. In for 41 days.

NO POSITIVE SWAB CASES.

FATAL CASES numbered 2—faucial 1; laryngeal 1. Average amount of antitoxin given was 52,000 units and the average duration of residence was 23·5 days. Both died from cardiac paralysis.

THE FATALITY RATE (calculated on clinical cases) was 1·8 per cent.

MIXED INFECTIONS.—Scarlet fever, 2; mumps, 1; chicken pox, 10.

ANTITOXIN.—Messrs. Burroughs, Wellcome & Co.'s diphtheria antitoxin used until May. Average amount given to cases discharged well was 32,000 units. Twenty-four cases had a serum rash, but this faded in a day or so.

In view of the number of serum rashes, Parke, Davis & Co. serum was substituted for Burroughs, Wellcome & Co.'s serum with success.

Seventy-six cases were given calcium sulphide and sodium chloride. Six cases were given proseptasine.

Pneumonia.

Fifteen cases were in hospital at the beginning of the year. 177 cases were admitted, of whom 24 cases were wrongly diagnosed. Of the true cases, 117 were discharged well; of the wrongly diagnosed cases, 22 were discharged well and 2 died. Thirty-seven cases (true) died and 14 cases remained at the end of the year.

CLASSIFICATION OF DISEASE IN TRUE CASES :—

- (a) Acute lobar pneumonia, 71, of whom 17 died.
- (b) Broncho-pneumonia, 62, of whom 16 died.
- (c) Influenzal pneumonia, 16, of whom 3 died.
- (d) Pneumonia and whooping cough, 1.
- (e) Empyema, 2. Aspirated. Both recovered.
- (f) Septic broncho-pneumonia, 1, who died.
- (g) Lobar pneumonia and (?) meningitis, 1.

THE AVERAGE DAY OF DISEASE on admission of true cases was :—Broncho-pneumonia, 4th day; lobar pneumonia, 4th day; influenzal pneumonia, 4th day.

THE FATALITY RATE, calculated on discharges, was 31·6 per cent. (13·2 per cent. increase from 1935).

Complications.—Empyema was present in 2 cases, aspiration giving good results ; otitis media, 3 ; enteritis, 6 ; pleurisy, 2 ; and nasal discharge, 4.

CORRECTED DIAGNOSES numbered 24.—Phthisis, 3 (of whom 1 died) ; tubercular meningitis, 1 (died) ; bronchitis, 17 ; chronic pleurisy, 2 ; bronchial catarrh with a staphylococcal skin infection, 1 (transferred to Victoria for operation).

DEATHS numbered 37.—Lobar pneumonia, 17 ; broncho-pneumonia, 16 ; broncho-pneumonia (septic), 1 ; influenzal pneumonia, 3.

ALTERED DIAGNOSIS DEATHS numbered 2.—Tubercular meningitis, 1 ; phthisis, 1.

Erysipelas.

Five cases were in hospital at the beginning of the year. Thirty-one cases were admitted, 1 case altered in diagnosis. Of the true cases, 29 were discharged well, 5 died, and 1 case was left in hospital at the end of the year.

ALTERED DIAGNOSIS.—One case of erythematous eczema discharged well after 32 days.

AVERAGE DAY OF ILLNESS on admission was the 3rd day.

FATALITY RATE (based on discharges) was 16 per cent.

Fourteen cases were given Evans & Co. erysipelas serum ; 15 cases were given calcium sulphide, and 3 had proseptasine.

THE AVERAGE AGE was 44 years.

THE AVERAGE DURATION OF RESIDENCE was 40 days.

SITUATION OF DISEASE.—Face, 26 ; leg, 6 ; arm and face, 1 ; breast, 1.

FATAL CASES.—Five (3 females and 2 males). All were acutely ill and toxic on admission.

Situation of Lesion.—Face, 3 ; leg, 2.

Complications.—Sub-cutaneous abscesses, 2 (incised) ; conjunctivitis, 1 ; albuminuria, 4 ; cystitis, 1.

Meningitis.

There was no case in hospital at the beginning of the year. Two cases were admitted. One recovered (altered diagnosis), and the other died (true case), leaving no cases in hospital at the end of the year. One case was altered to meningismus (? influenzal). No organism isolated.

FATAL CASE.—Tubercular meningitis (confirmed bacteriologically). Died on 12th day.

One case admitted as pneumonia : diagnosis was altered to tubercular meningitis (this patient died). (Bacteriologically proved).

Typhoid.

No cases admitted.

Other Diseases.

There were 7 unclassified cases admitted in 1936. Six were discharged well and one died. Pneumonia and empyema with sinus, 1 ; acute focal nephritis, 1 ; fibrinous pleurisy, 1 ; measles, 1 ; tonsillitis, 1 ; cholecystitis, 1 ; and septicaemia (low grade), 1, who died.

CONTINUED FEVER.—One case admitted as continued fever late in 1935. Died on 8th day of residence from meningitis. (No organism isolated).

Ambulance Work.

Admissions to Lightburn,	...	...	...	3,872
„ Motherwell,	...	...	...	2,627
„ other Institutions,*	...	...	...	1,477
Transfers,† ...	...	...	...	90
Discharges,	...	...	...	2,380
Other runs,	...	...	...	1,895
Cases (X-rayed at Motherwell),	...	...	...	88
Total,	...	...	...	12,429

* Longriggend, Hairmyres, Shotts and Stonehouse.

† Motherwell, Victoria, Thornliebank and Yorkhill.

Buildings and Grounds.

The following is a summary of the more important repairs and renewals executed during the year.

FURNISHINGS.—A three-piece suite was provided for Matron's room and three dressing-tables with mirrors and five chairs for nurses' rooms.

BUILDER WORK.—The walls of the administrative block, Pavilions I and IV, the laundry block, etc., were repointed.

JOINER WORK.—An Oregon pine floor was laid in Pavilion III.

PAINTER WORK.—Internal work included the painting, etc., of Pavilions II and VI, the sitting-room, and 10 nurses' bedrooms in the Home, and Laundry Block and Theatre Block. The external work included the painting of boundary railing, etc.

PLUMBER WORK.—New copper-worms were fitted to the calorifiers in Pavilions II and VI ; a steam pipe was fitted into the kitchen sinks at Pavilions II and III and into the ward of Pavilion VI ; rain water conductors of Home and Pavilions were renewed.

Staff.

The staff at the end of the year comprised—1 physician-superintendent, 1 matron, 6 sisters, 2 staff nurses, 21 probationer nurses.

The domestic staff consisted of—1 cook, 2 kitchen maids, 4 laundry maids, 5 home maids, 4 ward maids.

The outdoor staff comprised—1 foreman mechanic, 2 firemen, 1 chauffeur, 1 handyman.

STAFF ILLNESSES.—No infectious cases occurred, but 2 maids, 2 nurses, and 1 fireman were warded for the following illnesses :—Tonsillitis, 1 ; pleurisy, 2 ; nephritis, 1 ; cholecystitis, 1.

IMMUNISATION.—Of 19 Dick Tests no positive reactions were observed.

Of 19 Shick Tests, one was positive, immunisation was commenced with toxoid-antitoxin, but she left for another post before the course was completed.

EXAMINATIONS (Nurses') for 1936.—Seven probationer nurses passed the Preliminary Examination, held by the General Nursing Council.

Five probationer nurses passed the Final Examination and were then granted the General Nursing Council Certificate for Fever Nursing.

ALEX. W. M. BATTERSBY.

INFECTIOUS DISEASES HOSPITAL AND SANATORIUM, ROADMEETINGS.

ANNUAL REPORT BY PHYSICIAN-SUPERINTENDENT.

Resident Physician-Superintendent—J. C. MACARTHUR, M.B., Ch.B.
Matron—Miss RAMSAY.

INFECTIOUS DISEASES HOSPITAL.

1936.

On the 1st January, 1936, 45 patients were in residence. During the year, 417 were admitted, making a total of 462. Of these, 362 were discharged well, 24 died, and 76 were in residence at the end of the year.

The details of these admissions and discharges are summarised in the following table :—

		In Hospital 1st Jan., 1936.				Discharged.				Remaining in Hospital 31/12/36.	
		M.	F.	M.	F.	Recovered.		Died.		M.	F.
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Scarlet Fever,	...	13	14	86	105	77	109	1	—	21	10
Diphtheria,	...	1	2	69	62	50	49	3	1	17	14
Pneumonia,	...	2	6	37	21	24	20	10	2	5	5
Enteric Group,	...	—	—	3	2	3	2	—	—	—	—
Meningitis,	...	1	—	3	1	1	1	3	—	—	—
Erysipelas,	...	—	—	1	6	1	4	—	2	—	—
Others,	...	1	5	7	14	5	16	1	1	2	2
		18	27	206	211	161	201	18	6	45	31
		45		417		362		24		76	
		462				462					

There is a slight decrease in the total admissions for this year, as compared with last year. This decrease is due to the fact that the figures for scarlet fever admissions are nearer the normal than in the previous two years, when the number of cases was considerably increased. The other admissions remain about the same level except in diphtheria, where, towards the end of the year, a considerable increase occurred. The accommodation of the institution continues to be fully utilised.

Scarlet Fever.—This year there is again a decrease in the number of cases of scarlet fever admitted, as compared with last year and the previous year. This is, of course, the natural corollary to the high incidence rate in the preceding years, 1932-34. The type of the disease continues to be mild, only 2·9 per cent. of the cases discharged being classified as severe, and of these, only 1·7 per cent. represents the septic and toxic types of scarlet fever. The death rate continues to be under 1 per cent., as in previous years, being 0·58 per cent.

Diphtheria.—The total admissions for this year are higher than last year, the percentage increase being 29 per cent. This is accounted for by the increased incidence and severity of the disease during the latter half of the year. The type of disease has been more virulent than in the previous five years, and the death rate has correspondingly been increased to 5·1 per cent., as compared with 1·5 per cent. last year.

Pneumonia.—The admissions of pneumonia remain at the same level as during the previous three years. The death rate over all cases was 22 per cent., as compared with 21·7 per cent. last year.

The total number of admissions over all was greatest during December, the total for that month being 69.

The average duration of residence of all cases discharged was 39·3 days; of all recovered cases, 43·2 days; and of fatal cases, 7·2 days.

The fatality rate as calculated on all cases discharged was 6·2 per cent.

The following table summarises the admissions and discharges for each month of the year:—

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec
Admitted, ...	26	29	31	20	34	24	15	34	25	55	55	69
Discharged—												
Recovered,	16	33	20	32	26	32	17	34	19	26	45	62
Died, ...	3	2	3	—	1	1	1	1	1	3	5	3

Corrected Diagnosis.—The diagnosis was revised in 68 cases, or 17·6 per cent. of the total cases discharged.

Sanatorium.—The patients admitted during the past year have been rather advanced cases of bilateral disease, and, in the great majority of them, it was possible to adopt only conservative methods of treatment. This can be remedied only when earlier diagnosis is made at home and patients admitted to hospital while the disease is in its early stages and localised to one lung. It is in these unilateral cases that modern methods give an opportunity of complete arrest of the disease.

The following table gives the admissions annually since the opening of the hospital in 1928 :—

Year.	Total Number of Cases Admitted.
1928,	62
1929,	349
1930,	393
1931,	464
1932,	679
1933,	619
1934,	663
1935,	478
1936,	417

SCARLET FEVER.

27 cases of scarlet fever were in Hospital at the beginning of the year. During the year, 191 patients were admitted. The diagnosis was revised in 15 cases. Of the remaining 203 cases, 171 were discharged well, 1 died, and 31 were in Hospital at the end of the year.

Removal to Hospital was carried out in 97·7 per cent. of the cases in the first week of illness, and 2·3 per cent. in the second week.

The Average Day of Disease on admission of all cases discharged was 2·98 days.

Duration of Residence.—The average duration of residence of all cases discharged was 43·6 days ; of recovered cases, 43·4 days ; and the duration of residence of the fatal case was 2 days.

Type of Disease.—The cases have been, as usual, classified as mild, moderate, or severe, depending on the severity of the initial attack and the degree of toxæmia present, and not in relation to the complications, mild or severe, which may develop during the period of residence.

136, or 79·1 per cent. of the total cases discharged, were classified as mild.

31, or 18·02 per cent. of the total cases discharged, were classified as moderate.

*5, or 2·9 per cent. of the total cases discharged, were classified as severe.

*Of those cases classified as severe, 2 were of the septic type and developed multiple lesions ; they, however, responded to treatment and recovered ; and one was a true toxic scarlet fever ; the latter died two days after admission.

Fatality Rate.—1 case, or ·58 per cent. of the cases discharged, died.

The one fatal case occurred in a male patient, aged 39 years, with a severe toxic scarlet fever, the immediate cause of death being cardiac failure.

Corrected Diagnosis.—Of the cases notified as scarlet fever, 15, or 7·9 per cent., were wrongly diagnosed. These were :—Tonsillitis, 3 ; measles, 1 ; German measles, 1 ; diphtheria, 1 ; whooping cough, 1 ; rhinitis, 1 ; sore throat, 1 ; acute choriza, 1 ; exfoliative dermatitis, 1 ; doubtful, 3 ; nil, 1.

Complications.—110 patients, or 63·95 per cent. of the cases discharged, developed one or more of the following complications. As before noted, the severity or otherwise of the initial attack bears no proportionate relation to the degree or type of the complications which may develop during the course of the disease.

Glands.—63, or 36·6 per cent., showed some degree of cervical adenitis. The majority were mild, but every case, however slight, has been included. Suppurative adenitis, 2 ; non-suppurative adenitis, 61.

Ears.—17, or 9·9 per cent., developed otitis media, and of these, 1 developed an acute suppurative mastoiditis, which required operation.

Nose.—33, or 19·2 per cent., developed rhinorrhoea.

Joints.—4, or 2·3 per cent., developed definite signs or symptoms of rheumatism, and have been classified as follows, according to duration and severity of symptoms.—Acute rheumatism, 2; sub-acute rheumatism, 2.

Kidneys.—8, or 4·7 per cent., developed acute nephritis; 4, or 2·3 per cent., developed albuminuria.

Heart.—3, or 1·7 per cent., developed cardiac disease. They were classified as follows.—V.D.H. (mitral disease), 2; tachycardia, 1.

Sepsis.—Septic toe, 1; septic fingers, 5; septic sores, 1; boils, 2; abscesses, 2; quinsy, 2.

Other Complications.—Parotitis, 1; burn of foot, 1; tonsillitis, 6; sore throat, 1; conjunctivitis, 2; cellulitis of face, 1; pyelitis, 1; bronchitis, 1; erythema nodosum, 2.

Conditions present, but not as complications of Scarlet Fever.—Burn of scalp, 1; chronic otitis media, 2; congenital dislocation of hip, 1; impetigo, 4; scabies, 1; T.B. adenitis, 2.

The following table summarises all the complications of scarlet fever :—

Scarlet Fever.	Cervical Adenitis.		Otitis Media.	Mastoiditis.	Rhinorrhoea.	Joints.				Kidney.			
	Suppurative.	Non-Suppurative.				Acute Rheumatism.	Sub-Acute Rheumatism.	V.D.H.	Tachycardia.	Acute Nephritis.	Albuminuria.	Sepsis.	Others.
In 171 cases discharged well,	2	61	17	1	33	2	2	2	1	8	4	13	16
In 1 fatal case, ...	—	—	—	—	—	—	—	—	—	—	—	—	—
In 172 cases, ...	2	61	17	1	33	2	2	2	1	8	4	13	16
Percentage, ...	1·2	35·5	9·9	·6	19·2	1·2	1·2	1·2	·6	4·7	2·3	7·6	9·3

Scarlet Fever Antitoxin.—The results of treatment with scarlet fever antitoxin are summarised in the following table. The percentage of cases developing complications in "serum-treated" and "non serum-treated" cases does not vary very much this year. The figures are, however, somewhat misleading, as, in the first place, serum was given only to the most acute cases, and further, on analysing the complications which occurred in the "serum-treated" cases, it was found that, in the majority of cases, the complications were very mild.

Both Bayers' and May & Baker's preparations of the sulphononide were given in a few cases, but the numbers are insufficient to furnish any statistics for the report. It is hoped to have comparative tables in next year's report.

	Mild.	Mod.	Sev.	Total.	Complications.	
					No.	%
Cases treated with serum,	27	22	5	54	26	48
Cases not treated with serum,	109	9	—	118	84	71

Serum Rash.—12, or 23·1 per cent. of the cases treated with serum, developed serum rashes. They were, in the main, urticarial, and did not give rise to any constitutional disturbance.

Diphtheria Antitoxin.—10 cases received diphtheria antitoxin. The average dose was 14,000 units.

Mixed Infections.—Scarlet fever and diphtheria, 3; scarlet fever and measles, 1; scarlet fever, measles and whooping-cough, 1.

Cross Infection.—1 case admitted with scarlet fever and incubating chickenpox infected 2 others of the cases discharged.

Return Cases.—Taking 28 days as the arbitrary period within which a case is regarded as a "return," it was found that 5 cases presumably infected 6 others. The return cases occurred from 4 to 21 days after the dismissal of the "infecting cases." Of these, 4 were "clean" cases and 1 had had a discharging nose while in hospital. The discharge, however, had ceased before dismissal. The average duration of residence of the infecting cases was 45 days.

The Infectivity Rate.—The infectivity rate calculated on this basis is, therefore, 3·5 per cent.

The following table summarises the statistics relating to scarlet fever since the opening of the hospital in 1928 :—

	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.
Number of scarlet fever cases discharged recovered, ...	23	153	124	250	472	405	434	287	171
Number of return cases, ...	—	1	2	6	7	7	5	6	6
Infectivity Rate, ...	—	0·6	1·6	2·4	1·4	1·8	1·1	2·1	3·5
Number of deaths from scarlet fever, ...	—	2	1	—	3	4	3	2	1
Fatality Rate %, ...	—	1·3	0·8	—	0·63	0·9	0·7	0·7	0·58
Average duration of residence in days of the patients discharged, ...	—	44·6	44·8	44·9	33·6	38·9	37·6	37·7	43·6

Diphtheria.

3 cases of diphtheria were in residence on the 1st January, 1936. During the year, 131 cases were admitted, and 2 others proved to be diphtheria. The diagnosis was revised in 26 cases. Of the 110 true cases, 75 were discharged well, 4 died, and 31 were in residence at the end of the year.

Removal to Hospital was carried out within the first 3 days in 65·3 per cent. of the cases. In the fatal cases, the average duration of illness prior to admission was 4·3 days.

The Average Day of Disease on admission of all cases discharged was 2·9 days.

Duration of Residence.—The average duration of residence in hospital of all cases discharged was 37·9 days ; of recovered cases 39·3 days ; and of fatal cases, 11·8 days.

Type of Disease.—The cases have been classified according to the site and extent of the lesion, together with the initial degree of toxæmia present, as summarised in the following table :—

Site of the Lesion.	Mild.		Moderate.		Severe.		Total.	
	Rec.	Died.	Rec.	Died.	Rec.	Died.	Rec.	Died.
Faucial, ...	43	—	18	—	6	4	67	4
Faucial and Laryngeal, ...	—	—	—	—	2	—	2	—
Laryngeal, ...	—	—	4	—	—	—	4	—
Nasal, ...	2	—	—	—	—	—	2	—
	45	—	22	—	8	4	75	4

1. FAUCIAL DIPHTHERIA.—In 71 cases, the faucial region of the throat alone was involved. They have been classified as mild, moderate, or severe.

(a) *Mild*.—In 43 cases, the disease was classified as mild. The average amount of serum given was 13,000 units. There were no deaths. In none of the cases was serum given prior to admission to hospital.

Complications.—11 patients developed one or more of the following complications :—Albuminuria, 1 ; cervical adenitis, 7 ; otitis media, 1 ; rhinorrhoea, 2.

Conditions present, but not as direct complications of Diphtheria.—3 patients were found to be suffering from the following diseases :—Bronchitis, 1 ; chronic otitis media, 1 ; impetigo, 1.

Serum Rash.—8 patients in this group developed serum rashes, giving a percentage of 18·6.

Scarlet Fever Antitoxin.—1 patient only had scarlet fever antitoxin.

(b) *Moderate*.—18 cases were classified as moderate. In these, the membrane was fairly extensive and bilateral, and considerable systemic toxaemia was present. The average amount of serum given was 30,000 units. There were no deaths.

Complications.—7 patients developed one or more of the following complications :—Albuminuria, 2 ; cervical adenitis, 2 ; palatal paresis, 3 ; rhinorrhoea, 2.

Conditions present, but not as direct complications of Diphtheria.—Rheumatoid arthritis, 1.

Serum Rash.—8 patients in this group developed serum rashes, giving a percentage of 44·4.

Scarlet Fever Antitoxin.—3 patients had scarlet fever antitoxin, the average amount being 20 cc.

(c) *Severe*.—10 patients were classified as severe. In these cases, the membrane was very extensive, involving fauces, palate, etc., and systemic toxaemia was very marked. The average amount of serum given was 76,000 units. There were 4 deaths in this group.

Complications.—7 patients developed one or more of the following complications :—Albuminuria, 3 ; cervical adenitis, 4 ; conjunctivitis, 1 ; rhinorrhoea, 2 ; paresis of (1) the palate, 2 ; (2) the eye muscles, 1 ; (3) the vagus nerve, 2.

Conditions present, but not as direct complications of Diphtheria.—Epilepsy, 1.

Serum Rash.—5 patients in this group developed serum rashes, giving a percentage of 50.

Scarlet Fever Antitoxin.—1 patient only had scarlet fever antitoxin.

Fatal Cases.—Of the 4 fatal cases in this group, 2 were cases of severe toxic diphtheria and died within 36 and 48 hours of admission respectively. The other 2 deaths were from paralysis of the vagus nerve.

2 FAUCIAL AND LARYNGEAL.—In 2 cases, the fauces and larynx were both involved. They were classified as severe. The average amount of serum given was 45,000 units. The average duration of residence was 43 days. There were no deaths.

Serum Rash.—2 patients in this group developed serum rashes. There were no other complications.

3. LARYNGEAL.—In 4 cases, the larynx alone was involved. They were all classified as moderately severe. The average amount of serum given was 20,000 units, the ages of the patients being 10 months, 11 months, 17 months, and 3 years, respectively. The average duration of residence was 42 days. There were no deaths.

Complications.—Gastro enteritis, 1.

Serum Rash.—1 patient in this group developed a serum rash.

4. *Nasal*.—2 cases were classified in this group. Both were mild. The average amount of serum given was 9,000 units. The average duration of residence was 41 days. There were no deaths.

Conditions present, but not as direct complications of Diphtheria.—Impetigo, 1 ; T.B. abscess of face, 1.

Total Complications.—26 patients, or 33 per cent. of the clinical cases discharged, developed one or more complications, as summarised in the following table :—

	Cervical Adenitis.	Rhin- orrhoea	Otitis Media.	Album- inuria	Conjunct- ivitis.	Gastro Enteritis.	Paresis. Palate.	Eye.	Vagus.
In 79 cases discharged,	13	6	1	6	1	1	5	1	2
Percentage,	16.5	7.6	1.3	7.6	1.3	1.3	6.3	1.3	2.5

Corrected Diagnosis.—26, or 19.5 per cent. of the total number of cases admitted, were wrongly diagnosed. The diagnosis in these cases was revised as follows :—Catarrhal pharyngitis, 1 ; positive swab, 5 ; rhinitis, 1 ; sore throat, 2 ; syphilitic ulceration of soft palate, 1 ; tonsillitis, 15 ; nil, 1.

Mixed Infection.—The total number of cases of mixed infection occurring during the year was 3, viz. :—Diphtheria and chickenpox, 1 ; diphtheria and whooping-cough, 1 ; diphtheria and measles, 1.

Cross Infection.—The total number of cases of cross infection was as follows :—Measles, 1 ; scarlet fever, 1.

Fatality Rate.—4 patients, or 5.1 per cent. of the clinical cases discharged, died. The average day of disease on admission was 4.3 days, and the duration of residence, 11.8 days.

Antitoxin.—The average amount of serum given in all clinical cases discharged was 32,000 units, and in the fatal cases, 115,000 units. 5 patients, or 6.3 per cent. of the clinical cases discharged, had scarlet fever antitoxin. 24 patients, or 30 per cent. of the clinical cases discharged, developed serum rashes. These, in the main, were erythematous, and in one case only did acute symptoms of anaphylaxis develop.

Pneumonia.

8 cases were in residence at the beginning of the year. During the year, 58 cases were admitted. The diagnosis was revised in 15 cases, 3 of whom died. Of the remaining 51 cases, 32 were discharged well, 9 died, and 10 were in residence at the end of the year.

Classification of Disease.—Lobar, 25 ; bronchial, 16.

The Average Day of Disease on admission of all cases discharged was 5.8 days ; of recovered cases, 5.8 days ; and of fatal cases, 7.8 days.

The Average Duration of Residence of all cases discharged was 45.3 days ; of recovered cases, 56.8 days ; and of fatal cases, 4.8 days.

The Fatality Rate.—9, or 22 per cent. of the cases discharged, died. Of these, however, 2 died within 24 hours of admission to hospital. The corrected rate is, therefore, 17·1 per cent. The fatal cases were classified as 5 lobar pneumonia and 4 broncho-pneumonia.

Complications.—13, or 31·7 per cent. of the cases discharged, suffered from one or more of the following complications:—Abscess of neck, 1; albuminuria, 1; *basal meningitis, 1; bronchiectasis, 1; delayed resolution, 2; empyema, 2; *gastro enteritis, 1; *myocarditis, 1; *otitis media, 4; rhinorrhoea, 4; sepsis, 1; tabes mesenteric, 1.

*Complications in fatal cases.

Conditions present, but not as direct complications of Pneumonia.
Occupational silicosis, 1; burn, 1.

Corrected Diagnosis.—14 of the patients admitted had the diagnosis of pneumonia revised as follows:—Bronchitis, 4; influenza, 2; *pericarditis and V.D.H., 1; *tetany, 1; pleurisy, 1; malnutrition, 1; nil, 1; abscess of lumbar region, 1; pernicious anaemia, 1; enteritis, 1.

*These cases proved fatal.

Empyema.—3 occurred as complications of acute lobar pneumonia, and one was admitted as such. In one other case admitted as empyema, the diagnosis was revised to malignant tumour of the lung, which proved fatal.

Sex.—Male, 3; female, 1.

Causal Organism.—The causal organism in all 4 cases was the pneumococcus.

Treatment.—All 4 cases, after varying periods of preliminary aspiration, were treated by operation. A rib resection was performed under a general anaesthetic. There were no deaths.

Enteric Group.

There were no cases in residence on 1st January, 1936. During the year, 5 cases were admitted as belonging to this group. In 2 cases, however, the diagnosis was revised to pernicious anaemia and influenza respectively. The remaining 3 cases belonged to the para typhoid B. group. 2 were true clinical cases and 1 was a carrier. There were no deaths and no complications.

Meningitis.

1 case was in residence on 1st January, 1936. During the year, 4 others were admitted as meningitis. In 2 cases, the diagnosis was revised to bronchitis and enteritis and cerebral abscess, respectively. Of the 3 true cases, 2 proved to be cerebro-spinal fever and 1 pneumococcal meningitis.

CEREBRO-SPINAL FEVER.—Of the 2 cases, 1 died and 1 recovered.

The Average Day of Disease on admission was 4.5 days.

Duration of Residence.—The duration of residence was 89 days in the recovered case and less than 24 hours in the fatal case.

Sex and Age.—Both cases were males, aged $1\frac{1}{2}$ and $9\frac{1}{2}$ years, respectively.

Treatment.—Both cases were treated with meningococcus antitoxin intramuscularly and intrathecally. The fatal case received one dose of 40 cc., and the recovered case in all 120 cc. of serum.

PNEUMOCOCCAL MENINGITIS.—One male, aged 15 years, died after 3 days' residence in hospital. Serum was given without effect.

Erysipelas.

No cases were in residence at the beginning of the year. During the year, 7 were admitted as such. In 3 cases the diagnosis was revised. Of the remaining 4 cases, 2 were discharged well and 2 died.

Type of Disease.—In all cases the disease was confined to the face and scalp. 1 was classified as mild, 1 as moderate, and 2 as severe.

Complications.—Glycosuria, 1.

The Average Day of Disease on admission of all cases discharged was 5.5 days.

Duration of Residence.—The average duration of residence in hospital of all cases discharged was 24.2 days; of recovered cases, 26.5 days; and of fatal cases, 22 days.

Revised Diagnosis.—In 3 cases the diagnosis was revised, as follows:—Cellulitis of face, 1; cellulitis of leg, 1; nil, 1.

Fatal Cases.—In the 2 fatal cases the disease was complicated by cardiac lesions. One patient, on admission, was suffering from auricular fibrillation complicating an old-standing valvular lesion. She died from cardiac failure on the 15th day.

The other fatal case was a female, aged 58 years, admitted with a severe facial erysipelas, which responded to treatment. There was no cardiac lesion to be heard on auscultation. Two days before patient was due to be discharged, she suddenly collapsed with an extremely severe pain in chest radiating down the left arm. She died within three minutes. A diagnosis of coronary thrombosis was made, and this was confirmed at post-mortem examination.

MISCELLANEOUS CASES DISCHARGED DURING 1936.

			Rec.	Died.				Rec.	Died.
Abscesses, ...	...	...	1	—	Nil, ...	...	...	4	—
Acute Choriza, ...	...	...	1	—	Otitis Media, ...	...	...	1	—
Aneurism, ...	...	...	1	—	Pericarditis & V.D.H.,	—	...	1	—
Asthma, ...	...	...	1	—	Pernicious Anaemia,	2	...	—	—
Bronchitis, ...	...	...	4	—	Pleurisy, ...	...	...	1	—
Bronchitis and Enteritis,	2	—	—	—	Pleurisy with Effusion,	2	...	—	—
Catarrhal Pharyngitis, ...	...	...	1	—	Pleurodynia, ...	...	...	1	—
Carcinoma of Lung, ...	...	...	—	1	Post Pneumonic De-	...	...	1	—
Cellulitis, ...	...	...	2	—	bility, ...	...	...	1	—
Cerebral Abscess, ...	...	...	—	1	Puerperal Sepsis, ...	...	...	1	—
Dermatitis, ...	...	...	1	—	Pulmonary Tuberculosis,	5	...	1	—
Doubtful, ...	...	...	3	—	Pulmonary Tuberculosis	...	...	1	—
Dysentery, ...	...	...	1	—	(Hilus Disease),	...	...	1	—
Enteritis, ...	...	...	1	—	Rheumatoid Arthritis,	1	...	—	—
Fracture, ...	...	...	1	—	Rhinitis, ...	...	...	2	—
German Measles, ...	...	...	1	—	Ringworm, ...	...	...	1	—
Influenza, ...	...	...	3	—	Sore Throat, ...	...	...	3	—
Malnutrition, ...	...	...	1	—	Syphilitic Ulceration	...	...	1	—
					of Soft Palate,	...	...	1	—
					Tetany, ...	...	...	—	1
					Tonsillectomy, ...	...	...	1	—

SANATORIUM.

On the 1st January, 1936, there were 23 patients in residence in the Sanatorium and 5 patients in Isolation Pavilion. During the year, 23 others were admitted to the Sanatorium and 1 to Isolation Pavilion. Of these 52 patients, 27 were discharged improved or well, 3 died, and 22 were in residence at the end of the year.

ADMISSIONS AND DISCHARGES FOR 1936.

In Hospital, 1st January, 1936.	Admitted.	Discharged.	Died.	Remaining 31st December, 1936.
28	24	27	3	22

Sex and Classification.—There were 7 males and 23 females discharged. They were classified as :—Pulmonary, 27 ; non-tuberculous, 3.

The following table gives the distribution according to age-groups, sex, and type of disease :—

Age Groups.	Males.	Females.	Total.	Pul.	Non- Pul.	Non- T.B.
- 5	—	—	—	—	—	—
-10	—	1	1	1	—	—
-15	1	—	1	—	—	1
-20	—	3	3	3	—	—
-25	—	5	5	4	—	1
-30	3	2	5	5	—	—
-35	1	7	8	8	—	—
-40	—	3	3	3	—	—
-45	—	—	—	—	—	—
-50	1	1	2	1	—	1
-55	—	—	—	—	—	—
-60	1	1	2	2	—	—
	7	23	30	27	—	3

The following table gives the place of residence of the patients admitted during the year :—

Airdrie,	1	Cleland,	1
Baillieston,	1	Kirkmuirhill,	1
Bargeddie,	1	Lamington,	1
Bellshill,	1	Lanark,	5
Blantyre,	1	Lenzie,	1
Carluke,	5	Lesmahagow,	1
Carstairs,	4		

Duration of Residence.—The following table gives the duration of residence, in days, of all patients discharged during the year :—

Classification.	Maximum.	Minimum.	Average.
Pulmonary,	1,522	12	296
Non-Tuberculous,	527	72	250

Pulmonary.

There were 27 pulmonary cases discharged during the year, including 3 deaths.

Duration of Illness of all cases prior to admission is shown in the following table in three-monthly periods. The cases are classified according to the Turban-Gerhardt scale :—

Classification on Admission.	Months.						Total.
	1-3	3-6	6-12	12-18	18-24	Over 24	
GI,	2	1	1	—	—	—	4
GII,	3	5*	1	2	2	—	13
GIII,	1	—	1	2	3*	3*	10
	6	6	3	4	5	3	27

*Including 1 re-admission for the purpose of further treatment.

Fatal Cases.—3, or 11.1 per cent. of the pulmonary cases, died.

Duration of Illness of Fatal Cases from date of onset of illness to that of death, recorded in monthly periods, was as follows :—

No. of Patients.	Record in Months.
2	12-18
1	18-24

Results of Treatment.—The general result in treatment in pulmonary tuberculosis is summarised in the following table :—

Classification on Admission.	Disease Arrested.	Very much Improved.	Improved.	I.S.Q.	Died.	Total.
GI, ...	3	1*	—	—	—	4
GII, ...	2	6	4	1	—	13
GIII, ...	1	1	2	3	3	10

*Patient dismissed against medical advice.

Bacteriological Examination of the Sputum.—The following table shows the results of sputum examinations on admission and on discharge :—

Classification on Admission.	No. of Patients.	SPUTUM EXAMINATIONS.			
		On admission.		On discharge.	
		Pos.	Neg.	Pos.	Neg.
GI, ...	4	—	4	—	4
GII, ...	13	11	2	5*	8
GIII, ...	10	8	2	7†	3

*Including 4 cases who went home against medical advice.

†Including 3 deaths.

Non-Pulmonary.

There were no cases classified under this heading discharged during 1936.

Non-Tuberculous.

Of the cases discharged during the year, 3 showed no clinical, radiological, or bacteriological evidence of tuberculosis, and were classified as :—*(1) Rheumatoid arthritis ; (2) chronic bronchitis ; (3) nil.

*This case showed some interesting clinical features worth recording. Patient, a miner, aged 47 years, worked 30 years under ground—admitted as pulmonary tuberculosis complicated with rheumatoid arthritis. Patient had been confined to bed for over 12 months. Both elbows and knee joints flexed and fixed, marked limitation of movement in ankle, wrists, shoulders and metacarpal joints, with marked swelling and deformity in all. In short, he was a bed-ridden patient, who was unable to do anything for himself. Investigation showed the lung condition to be a typical bilateral silicosis—no positive evidence of tuberculous disease obtained. Crisalbine was given intravenously for the rheumatoid arthritis and results were quite startling. A total of 14.05 gm. were given in two courses over a period from January, 1935, to July, 1936. The following dates show the rate of progress :—

April, 1935.—Patient feeding himself.

May, 1935.—Able to shave.

July.—Allowed up, walking with two sticks shakily across ward.

October 20th.—Walking well with one stick a distance of 400 yards.

December 20th.—Walking without any support.

February 29th, 1936.—Discharged—complete functional use of all joints with only slight limitation of movement, considerable deformity of course remaining.

May, 1936.—Patient cycled 8 miles on a push-bike from his home to report progress.

Consultations and Operations by Consulting Staff.

Dr. Adam, Otologist—

Tonsillectomy and Adenoid Curettage,	8
Mastoidectomy,	1
Suture of Faucial Pillars,	1
Total,	10

Dr. Mortimer, Ophthalmologist—

Consultations,	2
-----------------------	---

Mr. Jacobs, Urological Surgeon—

Consultations,	1
	13

Other Operations.

The following table gives the details of the operative work performed during the year, other than the above:—

INFECTIOUS DISEASES HOSPITAL:—

Empyema—

Resection of Rib and Drainage,	4
Aspirations,	8

Suppurative Cervical Adenitis—

Incision and Evacuation,	5
---------------------------------	---

Acute Abscess of Neck—

Incision, evacuation, and drainage,	1
--	---

Acute Abscess of Scalp—

Incision, evacuation and drainage,	1
---	---

Quinsy—

Incision and evacuation,	4
---------------------------------	---

Otitis Media—

Paracentesis of Tympanum,	5
----------------------------------	---

Minor Abscesses, Onychia, etc.—

Incision, removal, etc.,	14
---------------------------------	----

Total,	42
---------------	----

SANATORIUM :—

Artificial Pneumothorax—

Inductions and refills,	108
--------------------------------	-----

Aspirations and replacements,	6
--------------------------------------	---

T.B. Abscesses—

Aspirations,	6
---------------------	---

Incisions, etc.,	5
-------------------------	---

Total,	125	125
---------------	-----	-----

Total,	167
---------------	-----	-----

Buildings and Grounds.

There were no alterations carried out during this year.

Staff.

The indoor staff consists of 1 resident physician-superintendent, 1 matron, 3 sisters, 8 staff nurses, 16 probationers, 18 maids, and 1 clerkess.

The outdoor staff consists of 1 engineer, 2 firemen, 1 chauffeur, 1 gardener, and 1 assistant gardener-chauffeur.

Lectures.—During the year a qualifying course of lectures on anatomy and physiology, hygiene, and the theory and practice of nursing was given. 8 probationers were entered for the preliminary examination of the General Nursing Council's Certificate in Fever Nursing. 1 failed in all subjects. The others were all successful in gaining a complete pass, although 2 had to resit one paper at the next examination.

4 senior nurses were entered (from Motherwell) for the final examination. They passed in all subjects and gained their certificate.

Staff Illnesses.—4 staff nurses, 5 probationers and 5 maids were warded with the following illnesses :—Acute conjunctivitis, 1 ; pleurodynia, 1 ; pneumonia, 1 ; prepatella bursitis, 2 ; sore throat, 4 ; tepoma of thigh, 1 ; tonsillitis, 5.

The sick staff lost 209 working days.

Immunisation.—9 probationer nurses had the Schick and Dick tests performed. Of these, 5 gave a positive Schick reaction and were immunised. All were negative to the Dick test.

3 probationer nurses were successfully vaccinated.

The voluntary attendance of the general public for free testing and immunisation still lags in this area, only 3 children being immunised during the year from this source.

Ambulance Work.

<i>Admissions—</i>							<i>Mileage.</i>	
Infectious Diseases Hospital,	...	...	...	...	...	6,624		
Sanatorium,	...	...	...	...	...	126		
							6,750	6,750
<i>Discharges—</i>								
Infectious Diseases Hospital,	...	...	...	...	...	3,815		
Sanatorium,	...	...	...	...	...	66		
							3,881	3,881
								10,631
<i>Others,</i>	...	...	...	...	...	...	5,713	5,713
<i>Total Mileage,</i>							...	16,344

HAIRMYRES COLONY.

REPORT BY THE PHYSICIAN-SUPERINTENDENT,
JAMES JOHNSTONE, M.B., CH.B., D.P.H.
FOR THE YEAR 1936.

PATIENTS TREATED.

The number of patients under treatment during the course of the year is shown in the following tabular statement:—

In Residence 1st January.	Admitted During Year.	Discharged During Year.	In Residence 31st December.
186	184	158	212

PATIENTS CLASSIFIED ACCORDING TO PARISH OF RESIDENCE.

(a) *County of Lanark.*

Avondale,	4	Dalziel,	1
Blantyre,	6	East Kilbride,	3
Bothwell,	30	Hamilton,	7
Cadder,	6	Lanark,	1
Cambuslang,	21	Lesmahagow,	7
Cambusnethan,	3	New Monkland,	5
Carluke,	1	Old Monkland,	13
Carnwath,	2	Rutherglen,	3
Crawford,	1	Shotts,	10
Dalserf,	8	Stonehouse,	1
		Total,	133

(b) *Burghs in County.*

Hamilton,	15	Lanark,	3
		Total,	18

(c) *Outwith the County.*

Berwickshire,	1	Renfrewshire,	5
Greenock,	1		
		Total,	7

NATURE OF DISEASE.

Of the 158 patients discharged during the year under consideration, 151 proved to be tuberculous, in 93 cases the disease assuming the pulmonary form, while in 58 it was non-pulmonary. The diseases affecting seven non-tuberculous cases were as follows:—Pulmonary fibrosis, 3; bronchiectasis, 1; arthritis, 1; cardiac disease, 1. In the remaining case no lesion was detected.

The number of patients suffering from the pulmonary form of the disease markedly outnumbered those of the non-pulmonary form.

In the statistics which follow, only 151 patients—discharged during the year—who proved to be tuberculous, are referred to:—

SOCIAL CONDITIONS.

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 and over.	Total.
Men, ...	20	38	20	5	5	88
Women, ...	6	14	6	3	2	31
Boys, ...	1	13	7	2	—	23
Girls, ...	1	3	3	2	—	9
Totals, ...	28	68	36	12	7	151

63 per cent. of the patients came from houses of less than three apartments. This is practically the same percentage as last year, and probably indicates a standard which will remain the same until the effect of the new Housing Act begins to be felt.

OCCUPATIONS.

Miners, ...	19	Furnacemen, ...	2
Labourers, ...	16	Shoemakers, ...	2
Steelworkers, ...	8	Soldiers, ...	2
Motor Engineers, ...	5	Hairdresser, ...	1
Professional, ...	5	Mental Attendant, ...	1
Artisans, ...	4	Mine Inspector, ...	1
Moulders, ...	3	Pattern Maker, ...	1
Merchants, ...	3	Tobacco Worker, ...	1
Domestic Servants, ...	2	Vanboy, ...	1
Factory Workers, ...	2		

24 per cent. of the patients were miners.

PULMONARY TUBERCULOSIS.

		ADMISSIONS.			DISCHARGES.			
		Direct.	By Transfer.	Total.	Direct.	By Transfer.	Death.	Total.
Men, ...	...	55	14	69	55	—	14	69
Women, ...	...	16	6	22	18	—	4	22
Boys, ...	...	1	—	1	1	—	—	1
Girls, ...	...	1	—	1	1	—	—	1
Totals, ...	...	73	20	93	75	—	18	93

REASONS FOR DISCHARGE.

				Stage I.	Stage II.	Stage III.	Totals.
Period of Treatment Completed,				3	7	2	12
Against Medical Advice,	...			1	3	5	9
Domestic and Financial,	...			7	13	18	38
Absconded,	...	...	...	4	5	6	15
At Request of Other Local Authority,	...	...	...	—	—	1	1
Died,	...	...	...	—	4	14	18
Totals,	...	...	...	15	32	46	93

In this table the most striking feature is the number of patients who were discharged for domestic and financial reasons. If the patient is a breadwinner, he is naturally anxious about his family. To remove this great obstacle to successful treatment, would it not be possible for the Local Authority to grant increased financial assistance, probably by means of a Care Committee.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	AGE AND SEX DISTRIBUTION.			Age Groups.
	Males.	Females.	Both Sexes.	
Under 5,	—	—	Pre-School Age.
„ 10,	1	—	School Age.
„ 15,	1	1	
„ 20,	10	3	Adolescence.
„ 25,	14	11	
„ 30,	13	4	Early Maturity.
„ 35,	4	—	
„ 40,	14	3	
„ 45,	5	1	
„ 50,	3	—	Late Maturity.
„ 55,	3	—	
„ 70,	2	—	Post Maturity.
Totals,	70	23	93

Adolescence and Early Maturity continue to be the dangerous periods. Again one has to record a slight increase compared with last year in the disease incidence amongst young adult females—60 per cent. of the total number of females treated.

DURATION OF ILLNESS.

Duration, ...	Months.			Years.		
	1-3	3-6	6-12	1-2	2-4	Over 4
Cases, ...	4	9	10	15	18	37

59 per cent. of the patients gave a history of over 2 years' illness on admission. This figure is still too high, and one can only hope that better and more efficient diagnosis will reduce it.

INITIAL MANIFESTATIONS OF ILLNESS.

Cough and Spit, ...	...	31	Dyspepsia, ...	...	...	1
Pleurisy, ...	...	19	Dyspnoea, ...	...	...	1
Lassitude, ...	...	11	Empyema, ...	...	...	1
Pneumonia, ...	...	7	Enteritis, ...	...	...	1
Loss of Weight, ...	...	5	G.S.W. of Lung, ...	...	...	1
Debility, ...	...	4	Influenza, ...	...	...	1
Night Sweats, ...	...	3	Lupus, ...	...	...	1
Osseous Tuberculosis, ...	...	3	Otitis Media, ...	...	...	1
Adenitis, ...	...	1				

RESULTS OF TREATMENT.

The classification adopted is that of Turban-Gerhardt.

Stage.	Number of Patients.	T B. Present.	Quiescent.	Improved.	No Change	Worse.	Died.
I, ...	15	4	3	10	2	—	—
II, ...	32	17	5	18	4	1	4
III, ...	46	39	—	23	9	—	14
Totals,	93	60	8	51	15	1	18

This table shows that patients were admitted in all stages of the disease. 36 per cent. showed no change, became worse, or died. It is gratifying to record that 64 per cent., compared with 43 per cent. last year, left the Colony with their health improved, although the majority of the patients, those in Stage III, showed advanced disease.

Complications.—The undernoted table shows complications present in the different stages of the disease. This is only retained for official purposes ; strictly speaking, they are, in the majority of cases, manifestations of the disease.

	Stage I.	Stage II.	Stage III.	Total.
Laryngitis, ...	—	—	7	7
Pleurisy, ...	5	—	1	6
Empyema, ...	—	1	1	2
Lupus, ...	—	1	1	2
Abdominal Tuberculosis,	—	—	1	1
Adenitis, ...	1	—	—	1
Double Otorrhoea, ...	—	1	—	1
Emphysema, ...	—	1	—	1
Ischio-rectal abscess, ...	—	—	1	1
Mentally Defective, ...	—	1	—	1
Spinal Caries, ...	—	1	—	1
Tuberculosis of Sternum,	—	1	—	1
Totals, ...	6	7	12	25

DURATION OF RESIDENCE.

	Under 4 weeks.	4 and under 13 weeks.	13 and under 26 weeks.	26 and under 52 weeks.	52 weeks and over.	Average duration of stay in days.
Stage I,	2	—	5	4	4	453
Stage II,	2	6	3	7	14	408
Stage III,	10	10	7	2	17	418
Totals,	14	16	15	13	35	

In tuberculosis, unfortunately, there is no short road to recovery. To obtain satisfactory results, prolonged treatment is necessary.

DURATION OF RESIDENCE IN DAYS.

	Average.	Maximum.	Minimum.
Men, ...	418	2,448	3
Women, ...	416	2,304	6
Boys, ...	878	—	—
Girls, ...	179	—	—

FAMILY HISTORY.

	Number of Cases Discharged.	Positive History			Percentage.
		Stage I.	Stage II.	Stage III.	
Men, ...	69	4	6	10	29
Women, ...	22	1	2	8	50
Boys, ...	1	—	—	—	—
Girls, ...	1	1	—	—	100
Totals, ...	93	6	8	18	34

It is always difficult to obtain the information necessary for the compilation of this table. The tendency is to conceal a positive family history. Further education of the public is necessary. However, the figures show an increase on last year.

NON-PULMONARY TUBERCULOSIS.

58 patients received treatment for the non-pulmonary form of tuberculosis.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5, ...	3	2	5	Pre-School Age.
„ 10, ...	11	4	15	School Age.
„ 15, ...	9	2	11	
„ 20, ...	6	5	11	Adolescence.
„ 25, ...	2	—	2	
„ 30, ...	6	2	8	Early Maturity.
„ 35, ...	1	1	2	
„ 40, ...	1	—	1	
„ 45, ...	—	1	1	
„ 50, ...	1	—	1	Late Maturity.
„ 55, ...	—	—	—	
„ 70, ...	1	—	1	Post Maturity.
Totals, ...	41	17	58	

44 per cent. of the cases were between the ages of 5 and 15.

The following table shows results of treatment according to the nature of the disease :—

	Quiescent.	Im-proved.	No Change.	Worse.	Died.	Total.
Peripheral Glands, ...	6	6	—	—	—	12
Tracheo-bronchial Glands, ...	1	1	—	—	—	2
Joints, ...	8	6	1	—	—	15
Bone, ...	5	2	—	—	1	8
Skin, ...	3	3	—	—	1	7
Abdomen, ...	2	3	—	—	1	6
Spine, ...	3	1	—	—	—	4
Other Organs, ...	1	1	1	—	1	4
Totals, ...	29	23	2	—	4	58

17 per cent. of the peripheral gland cases had discharging sinuses before or during treatment.

90 per cent. of the cases discharged were either "quiescent" or "improved."

DURATION OF RESIDENCE.

	Under 4 Weeks.	4 Weeks and under 13.	13 Weeks and under 26.	26 Weeks and under 52.	52 Weeks and over.	Average duration of stay in days.
Peripheral Glands, ...	—	3	1	2	6	403
Tracheo-bronchial Glands, ...	—	—	—	—	2	403
Joints, ...	1	—	2	5	7	619
Bone, ...	—	1	2	1	4	438
Skin, ...	—	—	1	1	5	739
Abdomen, ...	—	—	3	3	—	181
Spine, ...	—	—	1	1	2	440
Other Organs, ...	—	1	1	1	1	439
Totals, ...	1	5	11	14	27	

DURATION OF RESIDENCE IN DAYS.

	Average.	Maximum.	Minimum.
Men, ...	468	1,672	31
Women, ...	391	1,124	116
Boys, ...	543	1,615	6
Girls, ...	481	1,023	91

FAMILY HISTORY.

	Number of Cases Discharged.	Positive.	Percentage.
Men, ...	19	3	15
Women, ...	9	1	11
Boys, ...	22	4	18
Girls, ...	8	2	25
Totals, ...	58	10	17

ORTHOPAEDIC DEPARTMENT.

These notes were prepared by Dr. Alexander Smith, our Orthopaedic Surgeon.

There has been an increasing demand for beds for orthopaedic cases. In former years 34 or 35 beds in the bottom flat of Pavilion III were available, but in the early months of 1936 the orthopaedic waiting list became so unmanageable that an additional 15 beds in Pavilion II were converted for this purpose. Admissions to them began to be made at the end of March.

During 1936, 37 were admitted under my care, and 26 discharged. Of the discharges, 2 were transferred to the Colony for further ambulant treatment, while the other 24 were discharged to their homes. 24 of the patients suffered from tuberculous disease, and 2 from non-tuberculous orthopaedic conditions.

The discharges are tabulated below :—

(A) NON-TUBERCULOUS DISEASE.
(2 Cases).

No. of Case.	Sex.	Age.	Disease.	Treatment.	Result.	Residence in Days.	Remarks.
1	M.	10	Acute streptococcal arthritis, right hip.	Aspiration. Immobilisation.	I.S.Q.	6	Transferred to Stonehouse for operation.
2	M.	37	Sacralisation of lumbar vertebrae.	—	Improved.	67	—

(B) TUBERCULOUS DISEASE.
TUBERCULOSIS OF SPINE (2 Cases).

No. of Case.	Condition on Admission. Region affected, etc.	Sex.	Age.	Duration of illness in years.	Treatment.	Result.	Residence in days.	Remarks.
3	Extensive disease involving most of dorsal vertebrae with right psoas and gluteal abscesses.	M.	21	18	Recumbency. Aspiration. Celluloid jacket.	Quiescent.	415	—
4	Disease of 4th and 5th lumbar vertebrae with psoas and lumbar abscesses.	M.	29	3	Recumbency. Aspiration. Celluloid jacket.	Quiescent.	983	Walking normally.

TUBERCULOSIS OF JOINTS (11 Cases).

No. of Case.	Condition on Admission.		Sex.	Age.	Duration of illness in years.	Treatment.	Result.	Residence in days.	Remarks.
	Region affected, etc.								
5	Left Hip.	Early disease of hip-joint.	M.	9	6/12	Extension, etc.	Quiescent.	151	Apparently complete recovery.
6	Left Hip.	Disease of great trochanter with abscess.	M.	15	8/12	Aspiration. Fixation.	Quiescent.	31	Transferred from Stonehouse.
7	Left Hip.	Disease of femoral epiphysis with deformity.	M.	15	1	Correction of deformity. Celluloid splint.	Quiescent.	569	Discharged wearing appliance.
8	Left Hip.	Gross disease of femoral epiphysis and acetabulum with deformity and shortening.	F.	17	6	Extension. Correction of deformity. Celluloid splint.	Quiescent.	932	—
9	Right Hip.	Disease of acetabulum.	F.	3	6/12	Extension.	Improved.	320	Transferred to Stonehouse.
10	Right Hip.	Disease of acetabulum.	F.	7	3	Extension. Celluloid splint.	Quiescent.	941	Discharged wearing appliance.
11	Right Hip.	Disease of femoral epiphysis and acetabulum with deformity.	F.	13	6	Correction of deformity. Plaster. Celluloid splint.	Quiescent.	1,023	Discharged wearing appliance.
12	Right Hip.	Disease of femoral epiphysis and acetabulum.	M.	16	1	Extension. Celluloid splint.	Quiescent.	861	Transferred to Colony.
13	Right Hip.	Old disease of femur and acetabulum, with shortening.	F.	19	17	Recumbency. Appliance.	Quiescent.	268	Discharged wearing special boot.
14	Left Knee.	Disease of femoral and tibial epiphyses, with abscess.	M.	12	1	Extension. Aspiration. Walking caliper.	Quiescent.	850	Discharged with walking caliper.
15	Left Knee.	Disease of femoral and tibial epiphyses.	M.	14	8	Extension. Walking caliper.	Quiescent.	1,120	Transferred to Colony.

TUBERCULOSIS OF OTHER BONES (4 Cases).

No. of Case.	Condition on Admission. Region affected, etc.	Sex.	Age.	Duration of illness in years.	Treatment.	Result.	Residence in days.	Remarks.
16	Tuberculous dactylitis.	M.	1	6/12	Operation.	Healed.	462	—
17	Tuberculosis of 5th rib with abscess.	M.	2	3/12	Aspiration. Excision.	Well.	93	—
18	Disease of left tibia with abscess.	M.	10	6/12	Aspiration, etc.	Healed.	951	Walking normally.
19	Tuberculosis of 1st right metatarsal.	M.	29	1	Operation. Celluloid splint.	Healed.	537	—
20	Disease of left shoulder. Disease of 2nd and 3rd lumbar vertebrae.	M.	7	4	Celluloid jacket.	Quiescent.	108	Transferred from Stonehouse to complete treatment.

No. of Case.	Condition on Admission. Region affected, etc.	Sex.	Age.	Duration of illness in years.	Treatment.	Result.	Residence in days.	Remarks.
21	Tuberculosis of rib. Chronic pulmonary tuberculosis. Tuberculous empyema.	M.	19	1	Palliative.	Died.	86	—
22	Tuberculosis of spine. Tuberculosis of lungs. Tuberculosis of kidneys.	M.	27	2	Palliative. Aspiration, etc.	Died.	219	—
23	Spine. Old extensive dorsal disease and chronic pulmonary tuberculosis.	F.	31	30	Rest.	Improved.	143	—
24	Old spinal lesion. Old lesion of right knee. Active lesion left Os Calcis.	M.	33	32	Palliative.	Improved.	164	—

NOTES ON TABLES, Etc.

Of the two non-tuberculous cases, one was transferred to Stonehouse for operation. He suffered from acute haemolytic streptococcal arthritis, and was one of the early cases of this condition to be treated by Prontosil. He made a perfect recovery.

Two patients suffered from tuberculous disease of the spine, and both were discharged well with their lesions quiescent and wearing celluloid jackets.

Eleven patients suffered from disease of the joints, nine having lesions of the hip and two lesions of the knee joint. The hip-joint cases, with one exception, made good recoveries, and were dismissed home, six of them wearing appliances. One patient was transferred to Stonehouse for further treatment, and one to the Colony for training.

Both knee-joint cases also made good recoveries, and both were discharged from the ward wearing walking caliper splints. One is now a Colony patient, and is being trained in the cabinetmaking shop.

Four patients suffered from osseous lesions of the bones of the hands or feet, and these all made good recoveries, two of them after operation.

The patients with multiple tuberculous lesions, five in number, proved, as usual, the least amenable to treatment. Only one of the five was dismissed with a quiescent lesion. Two were somewhat improved, and two died. Tuberculosis of the spine, pulmonary tuberculosis, and bilateral renal tuberculosis occurring in one patient offer, unfortunately, little scope for more than palliative measures.

Two remaining patients, not classified in the tables, suffered from tuberculous cervical adenitis and had been transferred from Stonehouse after operation.

As in previous year only minor operative procedures such as the aspiration of abscesses were carried out in the wards. Operations were carried out at Stonehouse, and all plaster casts and celluloid appliances constructed there.

GRADUATED LABOUR.

Of the 87 adult males discharged during the year, 15 registered for training. 14 were physically unfit for systematic training, but were engaged in occupational therapy, and 58 were unfit to work without

prejudice to their condition. The last figure represents 67 per cent. of the total number of patients discharged, and indicates the advanced type of disease that is being treated.

NECESSITOUS CASES.

During the year, 24 cases—a decrease of 4 on last year—were supplied with clothing and boots, as follows :—

	Cases.	Value.
County of Lanark,	20	£41 9 8
Other Authorities,	4	9 11 4

WASSERMANN TEST.

A specimen of blood was taken from all adult patients on admission, with the undernoted result :—

Strongly positive, 3.

This was equal to 1·9 per cent. of the adult admissions compared with 6·7 per cent. last year.

DENTAL TREATMENT.

During the year, 110 adults and 18 children received treatment, as follows :—Extractions, 248 ; fillings, 58 ; scalings, 31.

These figures show a decrease on last year, although there was a slight increase in the number of fillings and scalings.

Our Dental Surgeon, Mr. Hutchison, visited the Colony once a fortnight.

X-RAYS.

The work done in this department was as follows :—1,261 radiograms. The parts examined were as follows :—Lungs, 1,146 ; pelvis, 36 ; spine, 20 ; knee, 10 ; abdomen, 10 (barium enemata) ; head sinuses, 9 ; foot, 4 ; hand, 4 ; ankle, 3 ; shoulder, 2 ; sternum, 2 ; wrist, 2 ; elbow, 1 ; femur, 1 ; mastoid, 1 ; rib, 1 ; skull, 1.

8 lipiodol injections were given for suspected bronchiectasis.

The work done in this department showed a marked increase, although we were still greatly handicapped by lack of suitable apparatus.

It is pleasing to record that the plans for the new X-ray Department have now been finally approved, and it is hoped to commence building operations early next year. A modern and powerful X-ray apparatus is the keystone of an institution for the treatment of tuberculosis.

ACTINOTHERAPY.

The ultra-violet rays, both natural and artificial, were again extensively used for the treatment of the non-pulmonary form of tuberculosis.

Heliotherapy.—This treatment was used as much as possible during the summer months whenever sunshine was available.

Artificial Light.—The equipment in this department was as follows :—4 carbon arc lamps (short-flame), 2 carbon arc lamps (long-flame), 1 K.B.B. atmospheric quartz mercury vapour lamp, 1 K.B.B. uviator air-cooled lamp, 1 Kromayer water-cooled quartz mercury vapour lamp.

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Glands.	S.R.	7	M.	2 years.	12 months.	S.F. L.F. U.V.	Cured.
	S.R.	15	F.	3 years.	15 months.	S.F. U.V.	Cured.
	J.M'A.	8	M.	3 months.	14 months.	S.F. L.F. M.V.	Cured.
	M.M.	28	F.	1 year.	12 months.	S.F. U.V.	Cured.
	J.M'K.	10	M.	2 years.	8 months.	S.F. M.V.	Cured.
	J.S.	12	M.	3 months.	11 months.	S.F. L.F.	Cured.
Glands (Discharging Sinus).	A.F.	12	M.	2 weeks.	2 months.	L.F.	Cured.
	A.B.	8	F.	3 months.	18 months.	S.F. L.F. U.V.	Cured.
	J.S.	6	M.	5 months.	10 months.	S.F. L.F. U.V.	Cured.
Bone (Discharging Sinus).	P.N.	16	M.	8 months.	2 months.	S.F. M.V.	Cured.
	J.C.	21	M.	3 years.	55 months.	S.F. L.F. U.V.	Improved.
	J.G.	10	M.	8½ years.	8 months.	S.F. M.V.	Improved.
	A.G.	19	M.	8½ years.	1 month.	S.F. M.V.	Cured.
	J.H.	18	M.	8 years.	48 months.	S.F. M.V.	Cured.
	P.L.	58	M.	2 years.	17 months.	S.F. L.F. M.V.	Cured.

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Fibroid Lupus.	H.C.	26	M.	18 years.	27 months.	{ S.F. M.V. U.V.	Cured.
	M.C.	15	F.	14½ years.	8 months.	{ S.F. M.V.	Cured.
	P.M'G.	9	M.	8½ years.	21 months.	{ S.F. L.F. U.V.	Cured.
Catarrhal Lupus.	M.T.	25	F.	20 years.	37 months.	{ S.F. M.V. U.V.	Cured.
	J.M'G.	46	M.	28 years.	17 months.	{ S.F. M.V. U.V.	Cured.
Abdomen.	E.B.	43	F.	6 weeks.	3 months.	{ S.F. M.V.	Cured.
	L.F.	9	F.	1 year.	8 months.	{ S.F. M.V.	Cured.
	C.L.	17	F.	3 months.	9 months.	{ S.F. M.V.	Cured.
	J.W.	10	M.	2 months.	6 months.	{ S.F. M.V.	Cured.
Empyema (Discharging Sinus).	R.H.	27	M.	9 months.	7 months.	S.F.	Cured.
	J.M'I.	17	M.	3 months.	4 months.	S.F.	Cured.
Epididymitis.	W.L.	24	M.	3 months.	13 months.	{ S.F. L.F.	Cured.
Asthma.	J.H.	17	M.	15 months.	4 months.	M.V.	Improved.
Ulcer of Tongue.	O.C.	22	M.	3½ years.	4 months.	U.V.	Cured.
Laryngeal Ulceration.	A.K.	37	M.	6 weeks.	2 months.	Krom.	Improved.

At the end of the year, 8 males and 5 females were still undergoing treatment.

Out-Patients.—The following table shows details of out-patients treated during the year. At the end of the year, 5 males and 4 females were still undergoing treatment.

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Gland (Discharging Sinus).	M.D.	2	F.	1 month.	1 month.	{ M.V. U.V.	Cured.
	N.R.	9	F.	1 month.	4 months.	{ M.V. U.V.	Cured.
	R.B.	11	M.	2 months.	6 months.	{ M.V. U.V.	Cured.
Laryngeal Ulceration.	J.C.	44	M.	3 years.	6 months.	Krom.	Marked Improve- ment.

*S.F. = Short Flame.

L.F. = Long Flame.

Krom. = Kromayer.

M.V. = Mercury Vapour.

U.V. = Uviator.

85 per cent. of the cases after treatment were classified as "cured," a result which could not be obtained by any other form of treatment.

The average number of treatments given per month was 633. The total number given by the different lamps was as follows:—Short-flame arc, 3,087; long-flame arc, 1,882; mercury vapour, 1,299; uviator, 966; Kromayer, 182.

Radiant Heat.—The total number of treatments given was 180. The K.B.B. Gallois infra-red radiation projector was used for various conditions requiring counter irritation.

The undernoted table gives details of the cases treated:—

Lesion.	Patient. Name.	Age.	Sex.	Duration of Illness.	Number of Treatments.	Result.
Lumbago.	J.D.	50	M.	3 weeks.	38	Cured.
Arthritis.	W.M'I.	46	M.	2 weeks.	22	Cured.
Pleurodynia.	{ D.F.	45	M.	5 weeks.	42	Cured.
	{ J.W.	30	M.	1 week.	4	Cured.
	{ D.M'C.	45	M.	1 week.	4	Cured.
Rheumatism.	{ B.M'M.	37	M.	2 weeks.	8	Cured.
	{ T.P.	45	M.	3 months.	42	Cured.
	{ J.F.	72	M.	1 year.	24	Cured.

TREATMENT.

Artificial Pneumothorax.—This is still the most satisfactory form of treatment for pulmonary tuberculosis. Where it can successfully be employed, it has revolutionised the outlook. A further stage of treatment is chest surgery, and, when we have the proper facilities in our new treatment block, it is hoped that we will be able to record further progress.

A striking feature regarding artificial pneumothorax is its effect on the sputum. In 90 per cent. of the cases, the sputum became negative for tubercle bacilli. This meant a subsequent reduction in the possibilities of spreading infection. Including inductions and refills, 424 injections were given.

Gold.—This drug was used for selected cases, being given in the form of Sanocrysin, Crisalbine and Oleo-Solganal, the last being used for the majority of the patients. Altogether, 183 injections were given. The total quantity in each case varied from 3.95 grms. to 5.19 grms.

Our County Laryngologist, Dr. James Adam, visited the Colony regularly and carried out the undernoted treatment:—

J. M'G.	Atrophic Rhinitis.	Lipiodol injected into sinus.
J. C.	Do.	do.
J. M.	Do.	do.
L. S.	Do.	do.
J. T.	Do.	do.
R. P.	Ulceration of Vocal Cords.	Cauterisation.
G. G.	Do.	do.
E. D.	Do.	Cauterisation and ultra-violet light.
J. L.	Do.	Cauterisation.
C. C.	Do.	do.
M. M.	Do.	do.
A. T.	Do.	Cauterisation and ultra-violet light.
P. M'A.	Do.	Cauterisation and ultra-violet light.
J. H.	Do.	Cauterisation and ultra-violet light.
M. M.	Do.	Cauterisation.
A. J.	Do.	Painted with silver nitrate.
M. C.	Do.	Cauterisation.
A. K.	Do.	Cauterisation and ultra-violet light.
B. C.	Do.	Cauterisation and ultra-violet light.
J. M'W.	Do.	Painted with silver nitrate.
D. L.	Do.	Cauterisation.
J. G.	Polypoid Masses.	do.
P. M'P.	Ulceration of soft palate.	do.
R. D.	Lupus Nose.	Diathermy.
J. D.	Septic Tonsils.	Tonsillectomy.
E. C.	Do.	do.
C. M.	Do.	do.
A. M'L.	Hay Fever.	Nasal cavity painted with silver nitrate.
M. D.	Otitis Media.	Ionisation.
D. F.	Do.	do.
J. D.	Do.	do.
J. G.	Do.	do.
T. C.	Do.	Painted with silver nitrate.
C. P.	Do.	do.
B. M'C.	Do.	do.
B. M'M.	Furuncle of Nose.	do.
A. S.	Aural cyst.	Excised.

BODY WEIGHT.

PROGRESS OF PATIENTS IN RESIDENCE DURING THE YEAR.

(1) Total number of patients who gained weight, ...	193
(2) Total number of patients who lost weight, ...	20
(3) Total number of patients who remained <i>in statu quo</i> , ...	2
(4) Total number of patients who were not weighed, ...	9
(5) Total number of patients who died, ...	23

For the 193 patients who gained weight, the average net gain is 11 lbs. 15 ozs. The greatest gain in weight is 65 lbs. 6 ozs. The lowest gain in weight is 2 ozs. For the 20 patients who lost weight, the average loss is 6 lbs. 2 ozs. The greatest loss recorded is 19 lbs. 8 ozs.

Taking the patients who were discharged during 1936, the average gain in weight was 12 lbs. 3 ozs.

TABLE I.
RELATION BETWEEN LENGTH OF STAY AND GAIN IN WEIGHT.

Under 1 month.	Between 1-2 mths.	Between 2-3 mths.	Between 3-6 mths.	Between 6-9 mths.	Between 9-12 mths.	Over 12 mths.
2 lbs.	7 lbs.	7 lbs.	12 lbs.	12 lbs.	13 lbs.	15 lbs.
15 ozs.	2 ozs.	15 ozs.	1 oz.	3 ozs.	15 ozs.	14 ozs.

TABLE II.
AVERAGE GAIN IN WEIGHT ACCORDING TO CLASSIFICATION.

Stage I. Spit -	Stage II. Spit -	Stage III. Spit -	Stage I. Spit +	Stage II. Spit +	Stage III. Spit +	Other forms of Tubercul.	Non- Tubercul.
8 lbs.	16 lbs.	14 lbs.	13 lbs.	10 lbs.	11 lbs.	15 lbs.	18 lbs.
8 ozs.	4 ozs.	3 ozs.	10 ozs.	9 ozs.	14 ozs.	13 ozs.	9 ozs.

The grading used is the Turban-Gerhardt classification. Other forms of tuberculosis in above table include abdominal tuberculosis, glandular tuberculosis, lupus and some orthopaedic conditions.

BLOOD SEDIMENTATION REACTION.

This reaction continues to become with each successive year more firmly established as a dependable measure for the assessment of clinical condition and by aggregation of prognosis. Its application is now adopted, therefore, in all cases, both on admission and thereafter at each subsequent routine examination, since by its aid it is possible to prepare coherent consecutive records of the progress of each case towards completion of treatment, and to assess the degree of involvement of the lungs.

As in previous years, the technique of Westergren is followed, in which one reading is made an hour subsequent to the setting up of the pipette. Using the normal readings of 1-3 for males and 4-7 for females, and an arbitrary classification of recorded rates suggested by a review of cases, the following results may be tabulated:—

TABLE I.
CLASSIFICATION OF SEDIMENTATION RATE WITH TYPE OF LESION.

Lesion.	Sedimentation Rate.				Totals.	Percentage of cases in various groups.
	1-3	4-20	20-40	Over 40		
Pulmonary—Spit negative :						
Stage I, ...	10	4	4	—	18	7.73
Stage II,	9	23	2	3	37	15.88
Stage III,	1	6	3	2	12	5.15
Pulmonary—Spit positive :						
Stage I, ...	—	3	—	—	3	1.28
Stage II,	—	14	11	15	40	17.17
Stage III,	2	14	19	41	76	32.62
Glands,	3	3	—	—	6	2.56
Lupus,	1	5	1	1	8	3.43
Bone,	4	10	—	2	16	6.86
Abdomen,	1	3	—	1	5	2.15
Other Regions,	3	6	3	—	12	5.12
Totals,	34	91	43	65	233	
Percentage of cases in various blood sedimentation groups,						
	14.59	39.05	18.45	27.89		

It is evident from perusal of the above table that the Sedimentation Rate in cases other than pulmonary is relatively low. On consideration of pulmonary cases alone, it is clear that spit negative cases have a lower sedimentation rate than spit positive cases, and, moreover, Stage III of the spit positive group has, without doubt, the highest sedimentation rate, a fact which agrees with the clinical findings. These figures emphasise the importance of the sedimentation rate in assessing the degree of involvement of the lungs apart from its usefulness in prognosis.

TABLE II.
CLASSIFICATION OF SEDIMENTATION RATE INCIDENCE
AMONG PULMONARY CASES ONLY.

Pulmonary Cases.		0-	10-	20-	30-	40-	50-	60-	70-	80-	90-	100-	110-
Spit Neg.	{ Stage I,	...	12	2	3	1	—	—	—	—	—	—	—
	{ Stage II,	...	21	11	1	1	—	2	—	1	—	—	—
	{ Stage III,	...	4	3	2	1	1	—	1	—	—	—	—
Spit Pos.	{ Stage I,	...	1	2	—	—	—	—	—	—	—	—	—
	{ Stage II,	...	5	9	9	2	5	5	1	1	—	1	1
	{ Stage III,	...	8	8	7	12	8	10	7	7	2	3	1

The above table confirms the fact stated above that the highest sedimentation figures are found in cases of Stage III spit positive grouping where there is the most widespread involvement of the lungs associated with activity.

TABLE III.
SEDIMENTATION RATES OF VARIOUS CLASSIFICATIONS
OF PULMONARY TUBERCULOSIS.

Classification.	Number of Cases.	Mean S.R. on Admission.
Pulmonary—Spit negative cases :		
Stage I, ...	6	14.60
Stage II, ...	23	15.08
Stage III, ...	5	33.00
Pulmonary—Spit positive cases :		
Stage I, ...	1	22.00
Stage II, ...	17	40.53
Stage III, ...	40	46.75
Total, ...	92	28.66

From consideration of the above table, the mean sedimentation rate of all pulmonary cases on admission is calculated to be 28·66. On the other hand, the mean sedimentation rate of all types of cases is 21·43.

The mean sedimentation rate of all cases discharged is found to be 30·93, this figure being partially accounted for by the proportion of patients who leave the institution against medical advice. This is further borne out by the fact that the mean sedimentation rate of those patients discharged on completion of treatment is found to be 7·27, a figure very much lower than the mean sedimentation rate of patients on admission, viz., 21·43.

The mean sedimentation rate of all deaths was 71·93.

SCHOOL.

Our three teachers were responsible for the education of our children, both in the open-air school and in the wards of the orthopaedic department. Although there was a reduction in the number of pupils attending the former, this was more than balanced by the increased number of pupils requiring individual attention in the wards. This individual teaching takes up a good deal of the teachers' time, but the results more than justify the time taken. Children confined to bed look forward to the teachers' visit, and it greatly relieves the somewhat dull monotony of rigorous bed confinement.

The average number of children attending school was 35.

In September our senior teacher, Miss Lamont, resigned owing to her approaching marriage. Her services to the school and colony cannot be too highly praised. She had the proper temperament for the work and had the gift of imparting knowledge. Our best wishes go with her in her new sphere.

BUILDINGS AND GROUNDS.

The Colony has accommodation for 250 patients, as follows:—

Pavilion I—Adult Males,	...	...	...	...	...	84
Pavilion II—Adult Males,	...	...	...	...	...	40
Boys,	...	...	...	...	...	40
					—	80

Pavilion III—Women,	25	
Girls,	17	
	—	42
Orthopaedic—Males,	20	
Females,	14	
	—	34
Observation—Children,		10
Total Beds,	250	

Owing to lack of staff accommodation, the Observation Pavilion was reserved for nurses. On completion of the new Nurses' Home, this pavilion will revert to its previous function.

Laboratory.—This was extensively used during the year, and arrangements were made to carry out the routine bacteriological examinations which previously were done at the County Laboratory.

An extensive amount of repair work was done by the County Works Department, including the renewal of the window frames and sills in the various buildings.

An additional telephone line was also installed in the office.

As a first step in our scheme of reorganisation this year, Pavilions II and III underwent extensive alterations. While these alterations were being carried out the patients were accommodated during the summer months in marquees. Verandahs were built on to the ground floors with communicating doors, and the windows on the top flat were reconstructed on the sliding collapsible principle. All the ward doors were widened and converted to the sliding type. The two smaller locker rooms on each floor were converted to slunges, and equipped with bedpan sterilizers and racks, sputum sterilizers, sinks, slunges, Macintosh and towel rails. A lift was also installed in each pavilion. The former boot rooms were converted into kitchens and equipped with dish-washing machines, electric cookers and tea urns. The electric wiring in these pavilions was also renewed.

Institution Kitchen.—Extensive alterations were also carried out in the kitchen, the old coal range being scrapped and the following new equipment installed :—A six-oven electric cooking range, fish fryer,

grill, baking ovens, "Monel" metal sinks, potato steamer, jam boiler, mixer, potato peeler, mincer and ham slicer. The bread store was provided with a new electric bread-cutting machine. A refrigerator, ice-making machine and ice-cream freezer were also installed.

Considerable progress was made with the new Nurses' Home, and it is hoped to give full details in the next annual report.

RECREATION.

The usual facilities were available for patients' recreation, our well-equipped Recreation Hall being in constant use.

Arrangements for outdoor recreation consisted of a golf course, putting green, and croquet lawn.

Towards the end of the year our wireless equipment was installed with bedside head-phones in the wards, and loud-speakers in the recreation rooms and staff quarters. There was also a microphone in the Recreation Hall to enable us to broadcast concerts and church services. Already it has supplied a long felt want and has been much appreciated by our patients.

Recreation takes a very important place in the treatment of tuberculous patients, and with the above facilities it is considered that we are well equipped in every respect. Our thanks are due to the under-noted kind friends who so generously provided entertainments during the season :—

The Arts League of Service.

Mr. Campbell's Party (2 entertainments).

The Gay Gordons.

Glasgow Highlanders' Concert Party.

Glasgow Police Male Voice Party.

Impromptu Entertainers.

Jubilee Mascots.

Rev. Father O'Leary's Party, Bridgeton.

Merrymakers' Concert Party.

The Regent Entertainers (2 entertainments).

Rosebank Church Junior Choir, Cambuslang.

St. Charles' School, Newton.

Sunshine Concert Party.

Virginian Concert Party.

Religious Services.—Regular services were held in the Recreation Hall, the undernoted clergymen very kindly giving their services voluntarily :—

Rev. D. C. Alexander, Eaglesham.

Rev. John Anderson, Carmunnock.

Rev. J. A. Cowley, Clarkston.

Rev. N. V. Hope, Busby.

Rev. T. K. Johnstone, East Kilbride.

Rev. Father Kennedy, Clarkston.

Rev. J. G. Liddell, East Kilbride.

Rev. D. L. Seath, Eaglesham.

Rev. N. S. Boyd Scott, East Kilbride.

Rev. A. M. Wright, Busby.

In addition, Sunday Schools were conducted for both Protestant and Roman Catholic children.

STAFF.

At the end of the year the Medical Staff was as follows :—

Physician Superintendent.

Consultant Laryngologist.

Orthopaedic Surgeon.

Consultant Dentist.

2 Assistant Physicians.

Consultant Oculist.

Towards the end of the year, owing to increased medical duties, an additional assistant was appointed.

The Institution Staff included the following :—

Matron,	1	Typist,	1
Sisters,	7	Clerks,	2
Staff Nurses,	5	Instructors,	4
Nurses,	31	Electric Power Station,	6
Supervisor,	1	Handyman,	1
Maids,	40	Attendant,	1
School Teachers,	3	Porter,	1
		Total,	<u>104</u>

METEOROLOGICAL REPORT.

I. RAINFALL.

Month.	Depth in Inches.	Month.	Depth in Inches.
January,	4.94	July,	4.71
February,	2.22	August,	2.46
March,	2.10	September,	3.50
April,	1.45	October,	5.73
May,	1.42	November,	4.7
June,	1.43	December,	6.3
		Total rainfall for year,	<u>40.96</u>

This shows a decrease of 3.79 inches on previous year.

During the year there were 215 completely dry days, being 9 days more than last year.

II. WINDS.

North,	27	South,	48
North-East,	30	South-West,	40
East,	78	West,	93
South-East,	15	North-West,	32
		North-North-West,	2
		West-North-West,	1
		<u>150</u>	<u>216</u>

III. TEMPERATURE.

			Highest Reading.	Lowest Reading.	Mean.
January,	...	...	46	19	32.5
February,	...	...	48	18	33
March,	...	...	64	28	46
April,	...	...	68	24	46
May,	...	...	76	34	55
June,	...	...	82	36	59
July,	...	...	78	46	62
August,	...	...	82	44	63
September,	...	...	78	33	55.5
October,	...	...	66	31	48.5
November,	...	...	52	24	38
December,	...	...	48	18	33

The mean temperature for the year was 47.

COLONY DEPARTMENTS.

The training conditions in all departments were similar to those of previous years, the patients being trained by experienced instructors. The working hours per day varied from two to six, according to the patient's physical condition.

GARDENS.

The upkeep of the grounds is a very important part of the duty of the staff. These grounds are very extensive compared with other sanatoria, and naturally the cost of upkeep is greater. All the garden produce was sent to the Institution kitchen and the flowers to the various wards. Any surplus was sent to market or sold privately. We again had a good tomato crop free from disease. The work of the patients in this department is classified as occupational therapy. It was almost entirely reserved for female patients, thus solving one of the problems of finding work for this class in a mixed colony. Twelve patients were enrolled. The staff at the end of the year consisted of a head gardener, inside and outside foremen, 5 undergardeners and a carter.

FOREST NURSERY.

This department undertook a considerable amount of work for the County Council, particularly the Housing, Highways and Public Parks Departments, *e.g.*, supplying the planting hedges at the various housing schemes; a start was made with the planting of trees and shrubs on the main arterial roads; trees were also supplied to the various public parks. It is quite evident that this department is becoming of increasing value to other County schemes. In addition, there has been an increased demand by the public for shrubs, roses, etc., for decorating the gardens of the numerous villas which are being erected in the neighbourhood. Three patients enrolled for training. The staff at the end of the year consisted of a head forester, foreman forester, 4 under-foresters, and a carter.

POULTRY FARM.

The work in this department is very suitable for tuberculous patients. It is an open-air occupation, and the duties are not too arduous. Poultry-farming can be considered as both occupational therapy and vocational training. There is a certificated poultrymaid in charge, and the patients work in relays, thus ensuring constant supervision of the poultry. The patients do not require to be on duty more than three hours per day. During the year 17 patients enrolled for training.

We had facilities in the incubator house for hatching 860 eggs at one time. There was an increased demand for table birds for patients' light diet, and, to meet this demand, 986 fowls were purchased at Lanark Auction Mart. This was more than double the requirements for last year. In addition, 150 day-old heavybreed cockerels were purchased and fattened for killing at 16 weeks old. Altogether, during the year, 844 chickens, 20 turkeys, and 92 ducklings were hatched. At the end of the year the stock consisted of 6 cocks, 165 cockerels, 341 hens, 230 pullets, 202 chickens, 51 ducklings, 7 turkeys—total, 1,002 fowls—an increase of 335 on the previous year.

The fertility of the stock was rather lower than last year, but the hatchability for the season reached the high figure of 85 per cent., and the rearability 87.1 per cent.

Chicken rearing for spring trade commenced on October 20th, 1935, and the cockerels were saleable on January 2nd, 1936.

PIGGERY.

Our new piggery has fully justified its erection. The sales amounted to the record figure of £920 13s. 5d., compared with £561 14s. 11d. last year. The pigs were sold at the various local auction marts. At the end of the year the stock numbered 152.

This department was under the supervision of the Farm Manager and seven patients enrolled for training.

GUINEA-PIG DEPARTMENT.

We were quite unable to cope with the demands of the County Laboratory for guinea-pigs. There was evidently an extreme shortage of these animals. The erection of a large house for rearing guinea-pigs would obviously be a sound investment and would also be of great assistance to the laboratory. This work would be of considerable interest to tuberculous patients of the non-pulmonary and non-infectious type.

This department was again successfully run by a patient. The stock was healthy and showed no evidence of disease. The fertility of the stock was kept at a good standard by the purchase of new stock.

Sold to County Laboratory,	...	...	140
Stock at end of year,	...	...	60

INSTITUTION WORKSHOP.

This department was in the charge of our handyman, being responsible for all the minor Institutional repairs. It has effected a considerable saving in maintenance costs, undertaking work which would otherwise have been done by outside contractors. It was considerably handicapped owing to lack of proper accommodation. A larger workshop would be a great improvement, and would enable even more work to be undertaken by our staff and patients.

Wherever possible, we employed patients in this department who had some previous experience of joiner and paintwork. Seven patients enrolled during the year.

GARAGE.

All the work in this department was undertaken by trainees under the supervision of our Motor Instructor. The work done by these

trainees was a good example of what can be done by a colony scheme. These men were performing duties which otherwise would have been undertaken by two full-time chauffeurs. This year we did a considerable amount of our own ambulance work, and another second-hand Austin ambulance was purchased. It was overhauled and painted by our own staff and trainees.

FARM.

The stock is a pedigreed Ayrshire herd, and we hold a producer's licence for certified milk (the highest grade). The average figure for the routine veterinary inspection was 97 per cent. All the milk produced was purchased by the Institution, none being retailed. Any surplus milk was made into butter. Being members of the Scottish Milk Records Association, the milk production was regularly tested by the official tester, and the figures were as follows:—Average butter fat, 3·98 per cent. 4 cows yielded over 1,000 gallons each. 11 heifers averaged 1,003 gallons at 4·1 per cent. butter fat. The average for the whole herd was 969 gallons. Bacteriological examination of the milk gave the result of 1,800 blood heat organisms per c.c., and no coliform bacilli in one-hundredth of a c.c.

The following were the awards gained at the various cattle shows:—

1st and 3rd,	...	2-year old Heifers,	...	East Kilbride.
3rd, ...	...	1-year old Heifer,	...	do.
1st, ...	...	1-year old Heifer,	...	Strathaven.
1st and 2nd,	...	2-year old Heifers,	...	Hamilton.
2nd, ...	...	2-year old Heifer,	...	Chapelton.
1st and 2nd,	...	1-year old Heifers,	...	do.
Breeder's Medal, ...	Silver ...	Champion Bull,	Ayrshire ...	H. & A.S. Show, Melrose.

The sale of year-old bulls continued to be a considerable source of profit to the farm. Altogether during the year we sold four year-old bulls, the highest figure being 30 guineas at the Lanark Bull Sale. One heifer went to Canada, being sold for £60.

The weather was very favourable for working the ground and sowing the seed. The heavy soil held the dampness during the very

dry period in May and June. Grazing was good all round. Hay and oats were a good crop and well secured considering the bad weather we had during hay time and harvest. Turnips were a very good sound crop, and have kept exceptionally well. Potatoes were also very good and entirely free from disease.

The staff consisted of Farm Manager, dairymaid, byreman, assistant byreman, 2 ploughmen and 2 outdoor workers.

The stock at the end of the year was as follows :—2 stock bulls, 2 bull stirks, 6 bull calves, 28 cows, 34 heifers, 9 heifer calves, 6 work horses.

INDUSTRIAL WORKSHOPS.

These workshops have been fully described in previous reports, consequently it is somewhat difficult to give fresh information. They continue to take a very important place in the Colony's scheme, and may be considered to be one of the more successful features. Patients look forward to getting a place in these workshops. One hopes that this unique scheme will long be a feature of the Colony.

The patients were afforded an opportunity of obtaining vocational training in basket-making, boot-repairing, cabinetmaking and motor-driving. There was a fully qualified instructor in charge of each department. A feature was the training of patients of the orthopaedic type with bone and joint tuberculosis. Although these workshops are essentially for training, and must not be considered as a commercial proposition, it is pleasing to record that the receipts totalled almost £1,000. It was a compliment to the staff and pleasing to record that other County Departments utilised the services of our instructors in a consultative and expert capacity.

55 patients, compared with 49 last year, enrolled for training as follows :—

Basket-making Department,	...	...	...	17
Boot-repairing Department,	...	...	...	9
Cabinetmaking Department,	...	...	...	15
Motor Department,	...	...	...	14

Hairmyres Colony,
March, 1937.

COUNTY ORTHOPAEDIC HOSPITAL, STONEHOUSE.

REPORT BY MEDICAL SUPERINTENDENT.

Medical Superintendent—ALEXANDER SMITH, M.B., Ch.B.

Visiting Physician—ALEXANDER M'LEAN, M.B., Ch.B.

Matron—Miss H. J. MORE.

ADMINISTRATION.

There are now available for orthopaedic cases some eighty beds at Stonehouse and fifty at Hairmyres, making a total of one hundred and thirty. This is an increase of 16 orthopaedic beds at Hairmyres, but, in spite of this, it has not been possible to reduce the waiting list to any appreciable extent. The demand on the accommodation seems to have grown with the years, not because of any increase in non-pulmonary tuberculous disease, but because doctors and their patients are more anxious to avail themselves of facilities for treatment as early as possible. It is, therefore, a matter for regret that a waiting list should still exist. Also, it is quite impossible to tackle with our present accommodation the many orthopaedic cases of a non-tuberculous nature whose demands for attention are clamant.

During 1936 there were usually more than 80 patients in residence at Stonehouse, while, on several occasions, the figure was as high as 85. The orthopaedic beds at Hairmyres were also fully occupied, though Stonehouse, having the operating theatre, had, of necessity, to stand the greater strain on its resources, because urgent cases simply had to have beds put up for them.

No alteration has been made in the buildings as yet, though a scheme for remodelling the kitchen and adding a new maids' dining-sitting room has been approved. It has also been decided to take the Clyde Valley Electrical supply rather than to renew our own generating plant, which is quite worn out. This will be a great boon, because it will permit of more modern radiological equipment, and at the same time allow parts of the institution not at present lit by electricity to be supplied.

STAFF.—*The Medical Staff*, as before, consists of a resident superintendent who carries out the treatment, including practically all the

operative work, and a visiting doctor whose chief duty is the administration of anaesthetics.

The visiting dentist gives treatment in his department at regular intervals.

The *Nursing Staff* consists of a matron, 5 trained sisters, and 17 probationers; *Clerical Staff*—1 clerkess, full-time, non-resident; *Teaching Staff*—1 full-time, non-resident, female teacher; *Domestic Staff*—1 cook, 2 laundrymaids, and 12 maids; *Outdoor Staff*—2 engineers, 2 gardeners, and 1 fireman.

Patients.

The work of the indoor and the outdoor departments are, as in former reports, classified separately.

Indoor Patients.

During the year, a total of 128 patients were admitted under my charge, and 118 dismissed. They were divided between Stonehouse and Hairmyres, as follows:—

	Admitted.	Discharged.
Hairmyres Orthopaedic Section, ...	37	26
Stonehouse, ...	91	92

The description of the Hairmyres cases has been incorporated in the general report from that hospital, which should be considered in conjunction with this report.

The 92 patients dismissed from Stonehouse are classified according to place of residence and age and sex distribution in Tables I and II.

TABLE I.

PLACE OF RESIDENCE.

Avondale, ...	3	Carmunnock, ...	1	Lanark, ...	4
Blantyre, ...	3	Carnwath, ...	1	Lesmahagow, ...	2
Bothwell, ...	33	Crawfordjohn, ...	1	New Monkland, ...	1
Cadder, ...	2	Dalziel, ...	1	Old Monkland, ...	2
Cambuslang, ...	8	Dalserf, ...	13	Pettinain, ...	1
Cambusnethan, ...	4	East Kilbride, ...	2	Shotts, ...	4
Carmichael, ...	1	Hamilton, ...	1	Stonehouse, ...	2
					90
Hamilton Burgh, 1; Airdrie Burgh, 1, ...	...	...	...	...	2
Total, ...	...	...	...	...	92

TABLE II.
AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age-Groups.	Tuber- culous.	Non- Tuberculous.
- 5	7	5	12	Pre-School,	7	5
-10	11	11	22	School Age,	19	3
-15	8	12	20		17	3
-20	8	9	17	Adolescent,	15	2
-25	—	5	5		5	—
-30	1	1	2	Early Maturity,	1	1
-35	—	2	2		—	2
-40	—	4	4		4	—
-45	1	1	2		2	—
-50	2	—	2	Late Maturity,	2	—
-55	—	—	—		—	—
-60	1	—	1		1	—
-65	—	—	—		—	—
-70	—	—	—		—	—
-75	2	—	2		2	—
-80	—	1	1		1	—
	41	51	92		76	16

Non-Tuberculous Disease.

(See Table III.)

During the year 16 patients were dismissed who had been treated for diseases other than tuberculosis.

Six suffered from acute cervical adenitis with abscess formation, and required surgical drainage. Two of them, suffering from acute haemolytic streptococcal infections, received Prontosil.

Two cases of acute streptococcal arthritis also made excellent recoveries. All cases of streptococcal arthritis are now, of course, receiving the sulphonamides.

The cases of osteomyelitis were treated on the Winnett Orr principles by drainage, removal of sequestra when present, and plaster.

Non-Pulmonary Tuberculosis.

The remaining 76 patients suffered from some form of non-pulmonary tuberculosis.

SPINAL DISEASE (10 CASES).

(See Table IV.)

Of the 10 patients suffering from tuberculosis of the spine, 8 were discharged well, wearing celluloid spinal jackets. Two of these 8 had had fairly bad spastic paralysis of the lower limbs, but were able to walk normally on discharge, with their spasticity completely recovered. Two patients admitted with spinal disease died, one unexpectedly from tuberculous meningitis, which is now much less commonly seen as a complication than formerly, and one with long standing sinus formation from amyloid degeneration.

HIP JOINT (4 CASES).

(See Table V.)

Four patients with hip joint disease were discharged, two of them with quiescent lesions. Operation was necessary in one case. Two patients were improved, but were transferred elsewhere to complete their treatment.

KNEE JOINT (2 CASES).

(See Table VI.)

Two knee joint cases were discharged well. One, after operation, was transferred to Calderbank, Home, being an ante-natal case. The other patient was a readmission to be fitted with a new walking caliper splint.

OTHER JOINTS (3 CASES).

(See Table VII.)

In this group were three patients. One of them was a child with sacro-iliac disease, with abscess and sinus formation, who required operative treatment. She was, unfortunately, taken home by her parents, but the hope of her ultimate recovery was not in any case great.

The other sacro-iliac case made a good recovery.

The third patient was a man of 57 years who had an excision of his wrist performed. He subsequently attended the Out-patient Department for ultra-violet light therapy and general supervision, and his lesions are now quiescent.

OTHER BONES (4 CASES).

(See Table VIII.)

In this Table are grouped patients with miscellaneous bony lesions. Two cases of dactylitis required operative treatment, but were discharged with their lesions quiescent, though there was some deformity of the fingers left. The third patient had an old very ugly scar adherent

to her malar bone which had formerly been the seat of tuberculous mischief. Operation was undertaken to improve her appearance. The last patient also made a good recovery after operation for the removal of a sequestrum from the sacrum.

MULTIPLE TUBERCULOSIS (10 CASES). (See Table IX.)

Only one patient in this group died during the year, an advanced multiple case with sinuses and amyloid disease. Two patients were admitted from Hairmyres for operation. One of these had his inguinal glands excised, and the other an operation for disease of the ribs and sternum. They were improved. A patient with renal tuberculosis was admitted from Longriggend, but after investigation the lesion was found to be bilateral and therefore inoperable, and she was sent back for Sanatorium treatment. Other three patients with multiple conditions were improved as a result of operative treatment to the most aggressive of their lesions, while the remaining three were dismissed in a quiescent condition.

GLANDULAR TUBERCULOSIS.

During 1936, 43 classified as suffering from glandular tuberculosis were discharged. I have frequently referred to the diversity of views held on the treatment of this condition. They range from the most extreme conservatism to the most radical of operative measures. My own views have been described in full in previous reports. I still believe that operation is necessary in many, both on account of the better cosmetic result achieved, and on account of the shortening of the duration of invalidism. A judicious separation of the cases suitable for purely conservative measures from those in whom operation is a preliminary to ultra-violet light therapy and a general sanatorium regime gives the best results. Sometimes it is with regret that cases are discharged within a short period of operation, but pressure on accommodation makes this necessary.

The regions involved and the type of treatment employed on the gland cases discharged during the year may be summarised as follows:—

Region.	Treatment.	No. of Cases.
Cervical.	Excision.	20
Cervical.	Incision and Scraping.	14
Cervical.	Tonsillectomy.	3
Preauricular and Parotid.	Excision.	1
Axillary.	Incision and Scraping.	1
Inguinal.	Excision.	2
Generalised.	General and Aspiration.	2

General remedial measures reinforced by ultra-violet light radiation were, of course, used in every case no matter what the type of operation. Thirty-one patients were discharged healed. The other twelve were greatly improved, but had not completed their treatment on discharge. Four of them were re-transferred to other institutions after operation ; one developed measles and was sent to the County Fever Hospital, while seven attended Stonehouse Outpatient Department for ultra-violet light therapy and dressings till their necks were healed.

General Remarks.

No great changes have taken place during the year in our methods of treatment. Since the disease in a particular bone or joint is merely the metastatic manifestation of a haematogenous spread of tubercle bacilli from mediastinal or mesenteric glands, treatment must consist of a combination of adequate orthopaedic and general measures, including rest, fresh air, good diet, and ultra-violet light therapy, natural or artificial. When surgical intervention is necessary it is undertaken.

Most of the spine cases are dismissed wearing celluloid jackets, and the hip cases wearing celluloid spica splints. Celluloid appliances are also used for elbow and ankle cases. In knee joint cases we are still making use of the walking caliper splint in the quiescent phase in preference to celluloid or certalmid apparatus. The entire process in the manufacture of celluloid appliances from the initial plaster cast to the finished product is carried out in the hospital.

Surgical Appliances.

Celluloid Apparatus.—During the year, 36 new celluloid appliances were made and 27 repairs carried out. The types of the new appliances were as follows :—

Spinal Jackets,	21
Hip Spica Splints,	7
Knee Splints,	2
Ankle Splints,	4
Elbow Splints,	2

Ten of the new appliances, 2 spinal jackets, 3 hip splints, 2 knee splints, 2 ankle splints, and 1 elbow splint, were made for Hairmyres ; and 7 repairs were carried out.

Other Surgical Appliances.—15 new surgical appliances, other than celluloid, were supplied and 11 repairs sanctioned. The new appliances were as follows :—

Walking Caliper Splints,	...	...	...	...	4
Surgical Boots,	...	...	...	...	9
Artificial Limbs,	...	...	...	...	2

Four of these new appliances and two of the repairs were for Hairmyres.

Infectious Diseases.

Infectious diseases are a definite source of difficulty in any hospital treating large numbers of children. An endeavour is made to keep the staff and patients immunised against diphtheria. With the streptococcal infections we have more difficulty. In recent times these have been treated with the sulphonamides, and some account of this will be given in the next report when the series is completed.

During 1936, a child was admitted for an operation for tuberculous cervical adenitis. Five days after admission he developed a well marked measles rash and was transferred to the County Hospital, Motherwell. Twelve of the immediate contacts who had not had measles were each given 5 c.c. convalescent measles serum obtained by Dr. Reid. No contact developed the disease. It is to be hoped that, when measles occurs again, we shall be sufficiently fortunate as to be able to get a supply of convalescent measles serum.

BEDSIDE TUITION.—The teacher has, as usual, carried out bedside tuition during the year. Children of school age are taught as much as possible of the usual school subjects. All patients, both adults and children, are taught arts and crafts.

X-ray Department.

During the year, 325 radiological examinations were made, 183 of these being of indoor patients, and 142 of outdoor patients.

Dental Treatment.

The visiting dentist paid three visits during the year, and 27 patients were treated as follows :—

Extractions,	...	...	...	...	49
Fillings,	...	...	...	...	2
Scaling,	...	...	...	...	2

Indoor Operations.

1. OPERATIONS WITH GENERAL OR SPINAL ANAESTHESIA.

Disease.	No. of Cases.	Operation.	Remarks.
Tub. Cervical Adenitis.	22	Excision.	Well.
Tub. Cervical Adenitis.	28	Incision and drainage.	Well.
Tub. Preauricular Adenitis.	1	Excision.	Well.
Tub. Axillary Adenitis.	1	Incision and drainage.	Well.
Tub. Inguinal Adenitis.	2	Excision.	Well.
Tub. of Spine with sinus.	2	Incision and drainage.	Improved.
Tub. of Rib.	2	Resection.	Well.
Tub. of Sternum.	1	Removal of sequestra.	Well.
Tub. of Hip Joint with Sinus.	2	Incision and drainage.	Improved.
Tub. of Hip Joint.	2	Removal of sequestra, etc.	Improved.
Tub. of Os Calcis.	1	Removal of sequestra.	Well.
Tub. of Tarsus.	1	Partial excision.	Improved.
Tub. of Wrist Joint.	1	Excision.	Well.
Tub. Dactylitis.	2	Removal of sequestra, etc.	Well.
Tub. of Malar Bone.	1	Plastic operation.	Well.
Tub. of Kidneys.	2	Cystoscopy and catheterisation of ureters.	Bilateral cases.
Acute Orchitis.	1	Drainage.	Well.
Acute Streptococcal Cervical Abscess.	3	Incision and drainage.	Well.
Acute Streptococcal Arthritis of Hip.	1	Arthrotomy.	Well.
Acute Streptococcal Arthritis of Knee.	1	Arthrotomy.	Well.
Osteomyelitis of Radius.	2	Removal of sequestra, etc.	Well.
Osteomyelitis of Femur.	1	Removal of sequestra, etc.	Well.
Osteomyelitis of Hand.	3	Incision, etc.	Well.
Branchial Cyst.	1	Excision.	Well.
Enlarged Tonsils.	3	Tonsillectomy.	Well.
Carcinoma of Oesophagus.	1	Excision of gland.	Died.
Total,	88		

2. MINOR OPERATIONS WITH LOCAL ANAESTHESIA.

Aspiration of psoas abscesses, paracentesis, etc.=482.

TABLE III.

NON-TUBERCULOUS DISEASE.

No. of Case.	Sex.	Age in Years.	Disease.	Treatment.	Result.	Residence in Days.	Remarks.
1	F.	$1\frac{9}{11}$	Acute cervical adenitis.	Incision and drainage.	Well.	23	—
2	F.	$1\frac{1}{12}$	Acute cervical adenitis.	Incision and drainage.	Well.	24	—
3	M.	$2\frac{8}{17}$	Acute cervical adenitis.	Incision and drainage.	Well.	19	—
4	M.	5	Acute cervical adenitis.	Incision and drainage. Prontosil.	Well.	24	—
5	F.	5	Acute cervical adenitis.	Incision and drainage. Prontosil.	Well.	12	—
6	F.	13	Acute cervical adenitis.	Incision and drainage.	Well.	34	—
7	F.	17	Septic tenosynovitis.	Incision and drainage.	Well.	5	—

TABLE III—Continued.

No. of Cases.	Sex.	Age in Years.	Disease.	Treatment.	Result.	Residence in Days.	Remarks.
8	M.	3	Acute streptococcal arthritis of both hips.	Drainage, etc.	Well.	534	—
9	F.	5	Acute streptococcal arthritis shoulder and hip.	Drainage.	Well.	322	—
10	M.	19	Osteomyelitis of os calcis.	Removal of sequestrum. Plaster.	Improved.	3	Transferred to Haimyres and discharged healed.
11	F.	29	Osteomyelitis.	Drainage. Plaster.	Healed.	22	—
12	M.	14	Branchial cyst.	Excised.	Well.	32	—
13	F.	7	Infantile paralysis both legs.	Tendon transplanting. Walking caliper.	Well.	1,544	Able to walk.
14	F.	12	Congenital deformity cervico-dorsal spine.	Corrective jacket.	Improved.	3	—
15	F.	33	Gummata of bones.	Specific treatment.	Improved.	104	Lesions healed. Transferred to Clinic for further treatment.
16	F.	32	Carcinoma of oesophagus.	Operation.	Died.	52	—

TABLE IV.
SPINAL DISEASE (10 CASES).

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
1	6th cervical to 3rd dorsal vertebrae with abscess.	F.	5	$\frac{4}{12}$	Recumbency. Aspiration. Celluloid jacket.	1	—	—	—	—	1,597	—
2	3rd-6th dorsal vertebrae with abscess and paralysis of lower limbs.	M.	19	1	Recumbency. Extension. Aspiration. Celluloid jacket.	1	—	—	—	—	1,626	Able to walk well.
3	2nd-6th dorsal vertebrae with abscess and paresis of lower limbs.	F.	36	4	Recumbency. Aspiration. Celluloid jacket.	1	—	—	—	—	906	Walks well.
4	9th-12th dorsal vertebrae.	F.	13	4	Celluloid jacket.	1	—	—	—	—	2	Quiescent on admission. Admitted for new celluloid jacket.

TABLE IV.—Continued.

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Fatal.		
5	9th-12th dorsal vertebrae.	F.	35	4	Recumbency. Celluloid jacket.	1	—	—	—	—	225	—
6	9th dorsal to 2nd lumbar vertebrae with lumbar abscess.	F.	17	8	Recumbency. Aspiration, etc.	—	—	—	—	1	1,872	Tuberculous meningitis.
7	2nd and 3rd lumbar verte- brae with abscess.	M.	3	1	Recumbency. Aspiration. Celluloid jacket.	1	—	—	—	—	1,362	Able to walk well. Transferred to Hairmyres.
8	2nd and 3rd lumbar verte- brae with abscesses.	M.	48	1	Recumbency. Aspiration. Celluloid jacket.	1	—	—	—	—	1,136	—
9	Dorso-lumbar region.	M.	7	4	Celluloid jacket.	1	—	—	—	—	2	Admitted for renewal of celluloid jacket.
10	Lumbo-sacral region with abscesses and sinuses.	M.	12	1	Recumbency. Aspiration. Operation.	—	—	—	—	1	2,968	Developed amyloid disease.

TABLE V.
HIP JOINT (4 CASES).

No. of Case.	Condition on Admission. Region affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
1	Right hip. Disease of femur and acetabulum.	M.	6	2	Plaster.	—	1	—	—	—	6	Transferred to Wester Hospital.
2	Left hip. Disease of femur and acetabulum.	F.	14	2	Extension.	—	1	—	—	—	6	Transferred to Hairmyres.
3	Left hip. Disease of head and neck of femur spread to trochanter.	M.	14	$\frac{3}{1\frac{1}{2}}$	Aspiration. Plaster. Celluloid splint.	1	—	—	—	—	346	Able to walk well.
4	Left hip. Extensive disease of femur and acetabulum with shortening.	M.	17	3	Extension. Tenotomy. Celluloid splint.	1	—	—	—	—	376	Ankylosed.

TABLE VI.

KNEE JOINT (2 CASES).

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
1	Right knee. Disease of tibial and femoral epiphyses.	F.	7	1	Extension. Walking caliper.	1	—	—	—	—	16	Re-admission.
2	Right knee. Extensive disease with abscess formation.	F.	27	14	Operation.	1	—	—	—	—	37	Knee ankylosed. Ante-natal case. Transferred to Calderbank House.

TABLE VII.

OTHER JOINTS (3 CASES).

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
1	Left sacro-iliac joint with abscess.	F.	10	$4\frac{1}{2}$	Recumbency. Aspiration. Operation.	—	—	1	—	—	371	Taken home on parents' request.
2	Left sacro-iliac joint.	F.	10	1	Recumbency, etc.	1	—	—	—	—	544	Walking normally.
3	Left wrist with sinuses.	M.	57	7	Excision.	—	1	—	—	—	3	Attending Out-patient Department.

TABLE VIII.

OTHER BONES (4 CASES).

No. of Case.	Condition on Admission. Region affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
1	Dactylitis of 2nd and 4th fingers left hand.	F.	2	1	Operation. Splintage. Ultra-violet light.	1	—	—	—	—	613	—
2	Tuberculous dactylitis of 3rd and 4th left metatar- sals with sequestrum.	M.	2	1	Operation. Ultra-violet light.	1	—	—	—	—	192	—
3	Tuberculosis of left malar bone with depressed scar.	F.	8	3	Operation.	1	—	—	—	—	3	Healed lesion. Plastic operation.
4	Disease of sacrum with sinus.	F.	10	$\frac{6}{1\frac{1}{2}}$	Operation.	1	—	—	—	—	447	—

TABLE IX.

MULTIPLE TUBERCULOSIS (10 CASES).

No. of Case.	Condition on Admission. Region affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in days.	Remarks.
						Healed.	Improved.	I. S. Q.	Worse.	Died.		
1	Tuberculous peritonitis. Tuberculous inguinal glands with sinus. Tuberculous dactylitis.	M.	7	1	Excision of inguinal glands.	—	1	—	—	—	4	Admitted from Hair- myres for opera- tion.
2	Left hip joint with sinus. Left knee. Left arm.	M.	15	1	Operative.	—	—	—	—	1	61	Advanced multiple case.
3	Tuberculous peritonitis. Tuberculosis of spine. Tuberculosis of ribs.	M.	17	1	Operation.	—	1	—	—	—	3	Admitted from Hair- myres for opera- tion, then re- transferred.
4	Bilateral renal tuberculosis. Chronic pulmonary tuberculosis.	F.	19	3	Pyelography. Catheterisation of ureters.	—	—	1	—	—	9	After investigation, retransferred to Longriggend.
5	Tuberculosis of 7th rib. Old quiescent disease right hip. Quiescent pulmonary lesion.	F.	37	3	Operation.	1	—	—	—	—	106	—

TABLE IX—Continued.

6	Tuberculosis of rib with abscess. Quiescent tuberculosis of hip.	F.	39	1	Aspiration.	1	—	—	—	—	286	—
7	Tuberculosis of 4th metatarsal with abscess. Tuberculosis of sternum with sinuses. Chronic pulmonary tuberculosis.	F.	41	5	Operation.	—	1	—	—	—	3	Home at request.
8	Disease of 10th-12th dorsal vertebrae. Chronic pulmonary tuberculosis. Quiescent tuberculous left elbow.	M.	43	8	Recumbency. Celluloid jacket.	1	—	—	—	—	507	—
9	Tuberculosis of ribs with sinuses. Chronic pulmonary tuberculosis.	M.	48	5	Operation.	—	1	—	—	—	3	Transferred to Shotts.
10	Tuberculosis of dorso-lumbar spine with abscess. Tuberculosis of sternum.	F.	77	3	Recumbency. Aspiration.	—	1	—	—	—	52	Now in Hairmyres.

Outdoor Department.

During the year, 2,818 attendances were paid at the Outpatient Department, and in 332 instances the patients were seen for the first time. Details of the 332 new cases are contained in the following Tables. As in former years, all the cases were sent on the recommendation of the Welfare Centres, Tuberculosis Dispensaries, Educational Clinics, etc.

Consultations.

A. TUBERCULOUS DISEASE.

Pulmonary, 3 ; Contacts, 2,	...	...	...	...	...	5
Genito-Urinary,	...	...	...	...	...	3
Glandular,	...	...	...	...	...	41
Bones and Joints :—Spine, 8 ; Sacro-iliac, 1 ; Hip, 9 ; Knee, 5 ; Ankle, 1 ; Shoulder, 1 ; Elbow, 2 ; Others, 6,	...	...	...	...	...	33
Multiple,	...	...	...	...	...	4
Total,						86

B. NON-TUBERCULOUS DISEASE.

Pulmonary System—

Bronchitis, 1 ; Pul. Fibrosis, 1 ; Pleurisy, 1, ... 3

Nervous System—

Infantile Paralysis, 2 ; Pressure Paralysis, 1, ... 3

Bones and Joints—

Normal, 5 ; Fractures, 1 ; Synovitis, 4 ; Periotitis, 3 ;
Osteomyelitis, 4 ; Osteoarthritis, 2 ; Rheumatoid
Arthritis, 6 ; Traumatic Arthritis, 2 ; Streptococcal
Arthritis, 1 ; Transient Arthritis, 1 ; Rickets, 6 ;
Scoliosis and Kyphosis, 5 ; Congenital Abnormality
of Spine, 1 ; Spina Bifida, 1 ; Coxa Vara, 1 ;
Talipes Equino Varus, 1 ; Hammer Toe, 1, ... 45

Septic Diseases—

Acute Cervical Adenitis and Cellulitis, 7 ; Chronic
Cervical Adenitis, 2 ; Preauricular Gland Abscess, 1 ;
Axillary Abscess, 1, ... 11

Miscellaneous—

Foreign Body, 1; Haematoma, 2; Lipoma, 1; Chondroma, 1; Hodgkin's Disease, 1; Erythema Nodosum, 1; Gonococcal Vulvo Vaginitis, 1; Ton- sils and Adenoids, 1; Amputations (Artificial Limbs), 4, 	13
Total, 	75

Operations.

System.	Disease.	No. of Cases.	Operation.	Remarks.
Osseous.	Tuberculosis of Ankle.	1	Aspiration.	Admitted later.
...	Tuberculosis of Sternum.	1	Removal of Sequestrum.	Well.
Glandular.	Tuberculous Cervi- cal Adenitis.	2	Excision.	Well.
	Tuberculous Cervi- cal Adenitis.	4	Incision and Scraping.	Well.
	Tuberculous Cervi- cal Adenitis.	2	Aspiration.	Admitted later.
	Acute Strepto- coccal Abscess.	1	Incision and Drainage.	Well.

X-ray Examinations.**A. TUBERCULOUS DISEASE.**

Pulmonary, 	5
Glandular, 	9
Bones and Joints :—Spine, 5; Sacro-iliac, 1; Hip, 10; Knee, 5; Ankle, 1; Shoulder, 1; Elbow, 2; Others, 4, 	29
Multiple,	1
Total,	44

B. NON-TUBERCULOUS DISEASE.

Pulmonary System—

Bronchitis, 2 ; Pul. Fibrosis, 1 ; Pleurisy, 2 ; Unresolved Pneumonia, 1 ; Empyema, 1, 	7
--	---

Nervous System—

Infantile Paralysis, 	2
--	---

Genito-Urinary System—

Nephritis, 	1
---	---

Bones and Joints—

Normal, 8 ; Fractures, 2 ; Synovitis, 4 ; Periostitis, 3 ; Osteomyelitis, 4 ; Osteoarthritis, 2 ; Rheumatoid Arthritis, 6 ; Traumatic Arthritis, 2 ; Transient Arthritis, 1 ; Rickets, 1 ; Scoliosis and Kyphosis, 5 ; Congenital Abnormality of Spine, 1 ; Spina Bifida, 1 ; Coxa Vara, 1 ; Hammer Toe, 1, 	42
---	----

Septic Diseases—

Axillary Abscess, ... * 	1
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Miscellaneous—

Foreign Body, 1 ; Haematoma, 2 ; Lipoma, 1 ; Chondroma, 1, 	5
--	---

Total, 	58
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ULTRA-VIOLET LIGHT THERAPY.—24 patients attended for the first time for ultra violet light therapy, 1,792 revisits were paid, and 3,494 exposures were given. Many of these patients required dressings, and, in all, 155 were done during the year.

MISCELLANEOUS AND DRESSINGS.—The remaining 34 cases attended for dressings, plasters, injections, etc.

REVISITS.—In addition to the new cases, revisits were paid during the year for the undernoted purposes :—

Operations, 3	Miscellaneous, 35
X-Ray Examinations, 40	Electrical Treatment, ... 202
Consultations, 318	Dressings, 96

Hours of Consultations and Treatment.

CONSULTATIONS.—Monday and Thursday, from 2 p.m.

X-RAY EXAMINATIONS.—Monday and Thursday, from 2 p.m.

ULTRA-VIOLET LIGHT TREATMENT.—

Females—Monday and Thursday, from 1.15 p.m.

Males—Tuesday, from 3 p.m., and Saturday, from 10 a.m.

ELECTRICAL TREATMENT.—By arrangement at time of consultation.

OUTDOOR OPERATIONS — DRESSINGS AND PLASTERS.—By arrangement.

The number of patients attending the Out-patient Department for consultations and radiological examinations is somewhat less. This is because, from January, 1936, patients were no longer referred indiscriminately from their own doctors as in former years. The Out-patient Department at Stonehouse has several functions. It exists in the first place to act as a centre for consultation in the diagnosis of orthopaedic conditions, and secondly, as an after-care centre for the observation of orthopaedic patients wearing appliances. All cases for consultation are therefore now referred from the district Tuberculosis and Child Welfare Centres, and occasionally from the Educational Medical Service and Public Assistance Authorities. The public assistance cases are mainly for consultation and advice regarding artificial limbs and surgical appliances.

In addition, ultra-violet light therapy, electrical therapy, minor operations, etc., are carried out.

COUNTY SANATORIUM, UPPERTOWN, LONGRIGGEND.

Physician Superintendent—LESLIE J. LANG, M.B., Ch.B., D.P.H.

Visiting Physician—RICHARD RAE, M.B., Ch.B., D.P.H.

Matron—Miss CAMPBELL.

ADMISSIONS AND DISCHARGES.

In Residence 1st January.	Admitted during year.	Discharged during year.	Died during year.	In Residence 31st December.
40	94	*79	8	47
		87		

* One patient was readmitted and completed two periods of residence during the year, making a net total of 78 discharged and 8 died, and the subsequent statistics deal with the total of 86.

PLACE OF RESIDENCE.—All cases discharged resided in the County of Lanark, the place of residence according to parish being as follows :—

Glasgow,	2	Crawford,	1
East Kilbride,	3	Old Monkland,	5
Blantyre,	6	Shotts,	6
Bothwell,	26	Cadder,	3
Cambuslang,	16	Rutherglen,	4
Cambusnethan,	4	Carmunnock,	1
Dalserf,	1	Hamilton,	2
Douglas,	1		
New Monkland,	3		86
Carstairs,	2		

AGE AND SEX.—In the following table the cases are shown classified according to age and sex, and according to age-groups for both sexes, each age-group also containing the pulmonary, non-pulmonary, tuberculised, and non-tuberculous cases referable to it :—

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age-Groups.		Pulm.	Non- Pulm.	Suspect.	Non- Tuber- culous.
— 5	6	2	8	Pre-School,	...	—	2	—	6
—10	6	8	14	School Age,	...	{ 1	4	5	4
—15	—	9	9						
—20	2	10	12	Adolescent,	...	{ 8	—	3	1
—25	4	12	16						
—30	—	9	9	Early Maturity,	{ 6	2	—	—	1
—35	1	4	5						
—40	2	4	6						
—45	2	1	3						
—50	1	1	2	Late Maturity, ...	{ 2	—	—	—	—
—55	1	—	1						
—60	—	1	1						
	25	61	86			38	19	12	17
	86					86			

DURATION OF RESIDENCE.

				Residence in Days.							
				Maximum.	Minimum.	Average.					
Pulmonary,	...	...	...	1,050	24	368				
Non-Pulmonary,	...	...	...	327	10	122				
Suspect,	...	...	...	338	12	121				
Non-Tuberculous,	...	...	...	211	26	106				
				Residence in Months.							
				0-1	1-3	-6	-9	-12	-18	-24	Over.
Pulmonary,	2	6	6	8	3	2	1	10	
Non-Pulmonary,	5	4	6	3	1	—	—	—	
Suspect,	3	3	3	1	1	1	—	—	
Non-Tuberculous,	1	4	11	1	—	—	—	—	

TRANSFERS TO OTHER INSTITUTIONS.—After observation or at the end of their period of sanatorium treatment, 8 cases were transferred to other institutions, as follows:—

Motherwell,	...	...	4 (Scarlet Fever 2 : Diphtheria 1 : Empyema 1).
Hairmyres,	...	...	4

Pulmonary Tuberculosis.

(38 Cases).

Included under this heading is one case of tuberculous pleurisy, a female of 26 years. History of pleurisy with effusion 6 months

before admission. Empyema developed and she was transferred to Motherwell Hospital for operation. She returned to the Sanatorium and died, after a further 120 days, of tuberculous empyema.

The remaining 37 cases are of parenchymatous tuberculosis.

DURATION OF ILLNESS.—The duration of illness recorded at the time of admission, and stated in monthly periods, was as follows :—

Classification on

Admission.	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
Group I, ...	2	1	—	—	—	1	4
Group II, ...	1	1	3	—	—	5	10
Group III,	5	2	6	2	1	7	23

DURATION OF ILLNESS OF FATAL CASES.—4 cases of pulmonary tuberculosis died, and the duration of illness from the date of onset to that of death was thus recorded in monthly periods :—

1-3	3-6	6-9	9-12	12-18	18-24	Over 24
—	—	1	2	1	—	—

GENERAL RESULTS OF TREATMENT.—The general condition of the patients on discharge is shown in the following tabular statement :—

Classification on

Admission.	Quiescent.	Improved.	Stat.	Worse.	Died.
Group I, ...	—	4	—	—	—
Group II, ...	3	6	1	—	—
Group III, ...	2	12	1	4	4

SPUTUM EXAMINATIONS.—Bacteriological examinations showed that 86 per cent. of the verified cases had tubercle bacilli in the spit :—

Classification on

Admission.	Positive.	Negative.
Group I., ...	2	2
Group II., ...	9	1
Group III., ...	21	2

SPUTUM NEGATIVE PULMONARY TUBERCULOSIS (5 cases).—In the spit negative cases the X-ray was positive in four instances and doubtful in one. The following confirmatory signs were found :—

History of Pleural Effusion	...	...	...	...	1
Crepitations and Haemoptysis,	...	...	...	...	1
Crepitation and Haemoptysis and History of Pleural	...	...	...	...	1
Effusion, ...	...	...	...	...	1
Sputum positive prior to admission,	...	...	...	...	1

One case, a girl of 16, with a definitely positive X-ray, had no confirmatory signs apart from a doubtful history of pleurisy.

Non-Pulmonary Tuberculosis.

(19 Cases.)

Cases of non-pulmonary tuberculosis requiring only hygienic and nursing treatment were dealt with in the Institution, and those for whom operative treatment or special appliances were necessary were transferred to Hairmyres, Stonehouse Hospital or Motherwell Hospital.

ABDOMINAL TUBERCULOSIS (10 Cases).—One case had, in addition, tuberculous cervical adenitis and one tuberculous salpingitis. Of the 10 cases discharged during the year, in 3 the condition was quiescent at time of discharge, 2 were improved, and 1 showed deterioration. In 3 cases, where the period of residence was short, the condition was unchanged, and the remaining case died. One case was transferred to a general hospital with acute intestinal obstruction.

GLANDS (7 Cases).—In 5 cases the cervical glands were affected. Three cases were discharged quiescent and 2 much improved.

The remaining cases were of cervical and mediastinal adenitis and multiple adenitis. Both were quiescent on discharge.

GENERALISED TUBERCULOSIS (2 Cases).—One, a child of 5 years, died after 46 days' residence; the other, a child of $1\frac{1}{2}$ years, died after 18 days.

Suspected Tuberculosis.

(12 Cases.)

Seven cases were children, three being contacts with spit positive cases. All showed radiological abnormalities and had positive skin tests. All were improved on discharge.

The remaining 5 cases were adults, admitted for observation and diagnosis. Two were spit positive contacts.

In three cases, who remained in hospital less than 2 weeks, the diagnosis was not established. The remaining cases had radiological abnormality but no parenchymatous disease. Both were improved on discharge.

Non-Tuberculous Diseases.

(17 Cases).

In 17 cases—that is, 19·8 per cent. of those under review—the diagnosis of tuberculosis was altered, as follows :—

ADULTS (5).—*Notified pulmonary tuberculosis* (5).—Pulmonary fibrosis, 3 ; debility, 1 ; cardiac disease, 1.

CHILDREN (12).—*Notified pulmonary tuberculosis* (2).—Asthma and bronchitis, 1 ; debility following pneumonia, 1.

Notified abdominal tuberculosis (5).—Debility, 3 ; Enteritis 2.

Notified Tuberculosis of Kidney (1)—Debilty.

Notified suspected tuberculosis for observation (4).—Debility, 2 ; debility and enteritis, 1 ; muscular dystrophy, 1.

Special Examinations and Treatment.

ARTIFICIAL PNEUMOTHORAX.—This form of treatment was carried out by transferring patients to Motherwell Hospital for the initial operation and for re-fills.

During the year 11 patients received this treatment.

5 of the patients were discharged. One had had treatment throughout 2 years' residence and will continue at home. In the other 4 cases treatment was stopped after 2 years, 17 months, 1 year, and 10 months respectively, in three cases on account of adhesion, and in the remaining case because of activity on the other side.

TREATMENT WITH GOLD SALTS.—Treatment with intravenous crisalbine or intra muscularly myocrisin was given in 8 cases during the year.

6 cases showed improvement ; 2 showed no improvement.

ARTIFICIAL LIGHT TREATMENT.—Suitable cases received this form of treatment, and the results in these selected cases were good. 8 cases were treated during the year.

X-RAY EXAMINATIONS.—73 patients were X-rayed at the County Hospital, Motherwell, the radiographs being sent to the Sanatorium and read in conjunction with the clinical picture.

EAR, NOSE AND THROAT SPECIALIST.—3 cases were referred to the consulting laryngologist.

OPHTHALMIC SPECIALIST.—Saw four cases in consultation during the year.

DENTAL TREATMENT.—The visiting dentist made 4 visits and treated 27 patients, the total number of extractions being 90. One filling was carried out.

Administration.

BUILDINGS AND GROUNDS.—No building extensions were undertaken during the year.

ACCOMMODATION.—The accommodation was unchanged, and consisted of 39 beds and 14 cots, allocated as follows :—Adult males, 9 ; adult females (open cases), 19 ; adult females (closed cases), and juvenile females, 11 ; cots, 14.

STAFF.—The *Medical Staff* of 2 is non-resident. The *Nursing Staff* comprises the Matron, 2 general trained sisters, 4 staff nurses and 4 probationers. *Domestic Staff*.—1 cook, 2 laundry maids, and 8 maids. *Outdoor Staff*.—1 engineer attendant (resident) and 2 assistant gardener-firemen (1 resident).

COUNTY SANATORIUM, SHOTTS.

Physician-Superintendent—CATHERINE B. WILSON, M.B., Ch.B., D.P.H.

Visiting Physician—JOHN M'MILLAN, M.B., Ch.B.

Matron—Miss SIMONS.

ADMISSIONS AND DISCHARGES.

In Residence 1st January.	Admitted during year.	Discharged during year.	Died during year.	In Residence 31st December.
46	85	*80	11	40
		91		

* One patient was readmitted and completed two periods of residence during the year, making a net total of 79 discharged and 11 died, and the subsequent statistics deal with the total of 90.

PLACE OF RESIDENCE.

All the cases discharged during the year resided within the County of Lanark, and the parish of residence is shown in the following table :—

Avondale,	1	Dalserf,	4
Barony,	1	East Kilbride,	2
Blantyre,	3	Hamilton,	2
Bothwell,	21	Lanark,	1
Cadder,	2	New Monkland,	3
Cambuslang,	16	Old Monkland,	7
Cambusnethan,	7	Rutherglen,	1
Carluke,	1	Shotts,	14
Crawford,	1	Stonehouse,	2
Dalziel,	1		

AGE AND SEX.

The following table shows the patients discharged, classified according to age group, sex, and type of disease :—

Quinquennial Periods	Males	Females	Both Sexes	Age Groups	Pulmonary	Non-Pulmonary	Suspected Tuberculosis	Non-Tuberculous
— 5	8	6	14	Pre-School, ...	—	3	1	10
— 10	12	1	13	School Age, ...	—	1	2	10
— 15	5	—	5		—	—	1	4
— 20	9	3	12	Adolescent, ...	11	—	—	1
— 25	7	3	10		8	1	1	—
— 30	5	1	6	Early Maturity, ...	4	1	—	1
— 35	4	3	7		6	1	—	—
— 40	1	1	2		1	—	—	1
— 45	4	1	5		4	—	—	1
— 50	7	—	7		5	—	—	2
— 55	—	—	—	Late Maturity, ...	—	—	—	—
— 60	6	1	7		6	—	—	1
— 65	1	—	1		—	1	—	—
— 70	1	—	1		1	—	—	—
	70	20	90		46	8	5	31

DURATION OF RESIDENCE.

				RESIDENCE IN DAYS		
				Maximum	Minimum	Average
Pulmonary, ...	...	...	...	906	1	289
Non-Pulmonary, ...	...	...	...	324	9	156
Suspected Tuberculosis, ...	...	...	...	615	166	324
Non-Tuberculous, ...	...	...	...	598	6	124

Residence in Months.

				0-1	1-3	-6	-9	-12	-18	-24	Over.
Pulmonary, ...	...	...	...	6	10	8	6	—	8	3	5
Non-Pulmonary, ...	...	...	...	1	2	2	1	2	—	—	—
Suspected Tuberculosis, ...	...	...	...	—	—	1	2	—	1	1	—
Non-Tuberculous, ...	...	...	...	5	12	8	4	—	1	1	—

TRANSFERS TO OTHER INSTITUTIONS.

Hairmyres Colony,	5
County Hospital, Motherwell—	
Erysipelas,	1
Hypernephroma,	1
	— 2
County Orthopaedic Hospital, Stonehouse—	
Spinal Caries,	1
Caries of Sternum,	1
Sacro-iliac Disease,	1
	— 3
County Sanatorium, Uppertown,	3
County Hospital, Bellshill—	
For Induction of Abortion,	1
Victoria Infirmary, Glasgow—	
Cerebral Tumour for Operation,	1

Pulmonary Tuberculosis.

(46 Cases).

Included under this heading is the following case of *tuberculous pleurisy* :—

F.31.—Admitted as *tabes mesenterica* after operation in Glasgow Royal Infirmary. Developed pleural effusion after 3 months in Sanatorium. Repeated aspiration of fluid which was negative on examination for tubercle bacilli. On discharge after 25 months' treatment there were no abdominal symptoms and X-ray of chest showed no abnormality.

This case having been deducted, there remain 45 cases of *parenchymatous tuberculosis*.

DURATION OF ILLNESS.—The duration of illness recorded at the time of admission, and stated in monthly periods, was as follows :—

Classification on								Total.
Admission.		1-3	3-6	6-12	12-18	18-24	Over 24	
Group I, ...	11	3	—	—	—	3		17
Group II, ...	5	1	1	—	—	8		15
Group III, ...	2	6	1	—	—	4		13

DURATION OF ILLNESS OF FATAL CASES.—9 cases of pulmonary tuberculosis died, and the duration of illness from the date of onset to that of death was thus recorded in monthly periods :—

1-3	3-6	6-9	9-12	12-18	18-24	Over 24
3	1	1	1	—	1	2

GENERAL RESULTS OF TREATMENT.—The general condition of the patients on discharge is shown in the following tabular statement :—

Classification on Admission.		Quiescent.	Improved.	Stat.	Worse.	Died.
Group I,	...	9	4	4	—	—
Group II,	...	2	6	3	2	2
Group III,	...	—	—	1	5	7

SPUTUM EXAMINATIONS.—Bacteriological examinations showed that 64.5 per cent. of the verified cases had tubercle bacilli in the spit :—

Classification on Admission.				Positive.	Negative.	No Spit.
Group I,	...	...	...	7	8	2
Group II,	...	...	...	8	7	—
Group III,	...	...	...	13	—	—

SPUTUM NEGATIVE PULMONARY TUBERCULOSIS (17 Cases).—In all of these cases the X-ray was positive, and the diagnosis was further supported by the following confirmatory signs :—

Crepitations, positive guinea pig inoculation,	...	1
Crepitations, pleurisy, positive guinea pig inoculation,	...	1
Crepitations, haemoptysis, pleurisy,	...	1
Crepitations, pleurisy,	...	1
Pleurisy,	...	1
Haemoptysis,	...	4
Haemoptysis, crepitations,	...	1
Positive spit prior to admission,	...	2
Positive spit prior to admission, crepitations,	...	1

Three cases of chronic fibrotic tuberculosis had no confirmatory symptoms. All had quiescent lesions of old standing, and X-rays were definitely positive.

One case, with no confirmatory symptoms, had a definitely positive X-ray showing recent deposits in the left apex only. In this case artificial pneumothorax was successfully used.

Non-Pulmonary Tuberculosis.

(8 Cases).

ABDOMINAL TUBERCULOSIS.

(4 Cases).

Febrile.—M.33.—Admitted after laparotomy in Glasgow Royal Infirmary, resistance, pain and tenderness ; went home against advice in 9 days. Condition unchanged.

M.2.—Distension, resistance, pain, diarrhoea ; taken home against advice after 31 days. Condition unchanged.

M.9.—Distension, resistance, pain, palpable mesenteric glands ; transferred to Hairmyres Colony after 171 days. Condition much improved.

Afebrile.—M.22.—Large gland mass in umbilical region, tuberculin tests markedly positive. Much improved after 68 days.

BONES AND JOINTS.

(1 Case).

M.63.—Old standing case with multiple lesions in arm and hip-joint ; condition quiescent. Discharged after 136 days.

GLANDS.

(2 Cases).

M.2.—Cervical adenitis with abscess formation, spit positive contact, marked reaction to tuberculin tests. Transferred to Uppertown Sanatorium after 324 days. Condition quiescent.

F.4.—Cervical adenitis with abscess formation, corneal ulceration and opacities, marked reaction to tuberculin tests. Discharged after 275 days. Condition quiescent.

MULTIPLE TUBERCULOUS LESIONS.

(1 Case).

M.26.—Admitted pending transfer to Stonehouse. Caries of lumbar spine, cold abscesses of thigh, epididymitis. Transferred to Hairmyres (Orthopaedic Section) after 322 days. General condition improved.

Suspected Tuberculosis.

(5 Cases).

Four children who had suggestive symptoms, and who reacted to tuberculin tests, but in whom no diagnostic localising signs were detected, are included in this group. All were debilitated on admission, and had respiratory or abdominal symptoms suggestive of tuberculosis, while three had a history of definite exposure to infection while living with an established case of open pulmonary tuberculosis.

All four cases showed on X-ray examination a definite radiological abnormality, not classifiable as tuberculosis and without any physical signs of active disease. All were in good general condition on discharge, and showed no signs of active tuberculosis.

The remaining case, admitted as pulmonary tuberculosis, was an adult of 21 years, with valvular heart disease and failing compensation. X-ray showed well marked quiescent hilum deposits. Compensation was re-established and the patient's general condition good on discharge. He showed no signs of active tuberculosis.

Non-Tuberculous Diseases.

(31 Cases).

In 31 cases—that is, 34·4 per cent. of those under review—the diagnosis of tuberculosis was altered, as follows :—

ADULTS (7).—*Notified Pulmonary Tuberculosis* (7).—Pulmonary fibrosis, 2 ; valvular disease of the heart, 1 ; gastritis, 1 ; cerebral tumour, 1 ; pulmonary abscess, 1 ; asthma, bronchitis, hypernephroma, 1.

CHILDREN (24).—*Notified Pulmonary Tuberculosis* (4).—Pulmonary fibrosis, 1 ; bronchitis, 1 ; debility, 1 ; endocarditis, 1.

Notified Suspected Abdominal Tuberculosis (15).—Rickets, debility, 4 ; rickets, eczema, debility, 1 ; enteritis, debility, 2 ; debility, 5 ; cardiac disease, 1 ; nephritis, 1 ; bronchitis, 1.

Notified Suspected Tuberculosis (5).—Rheumatic endocarditis, 1 ; bronchitis, 1 ; debility, radiological abnormality, 2 ; debility, corneal ulceration, 1.

The ages of the children were :—0—5 years, 10 ; 5—10 years, 10 ; 10—15 years, 4. The altered diagnosis in each case was supported by repeated negative tuberculin reactions.

Special Examinations and Treatment.

ARTIFICIAL PNEUMOTHORAX.—Six of the patients discharged during the year were considered suitable for treatment by means of artificial collapse of the lung. All were spit positive on admission. Four of these patients had a unilateral lesion and responded well to the treatment, the disease being quiescent on discharge, the spit absent or negative and the patients' general condition good.

One patient had a chronic fibrotic lesion with a persistent temperature. In this case the operation was attempted on two occasions, but was unsuccessful on account of adhesions. Ordinary sanatorium treatment resulted in a marked improvement, and the patient's condition was quiescent on transfer to Hairmyres Colony.

The remaining patient, very ill on admission, with severe toxaemia and repeated haemoptysis, had a bilateral lesion, much more marked on one side. Combined collapse and crisalbine therapy resulted in a very marked improvement over a period of 10 months, but treatment was discontinued on the occurrence of pyopneumothorax. This patient died.

INTRAVENOUS CRISALBINE.—Three patients, including the one above referred to, were considered suitable for this treatment. In both cases improvement was marked in X-ray appearances and in the patients' general condition. In one case the sputum remained positive, in the other there was no sputum over a period of 15 months before discharge.

ARTIFICIAL LIGHT TREATMENT.—Suitable cases received this form of treatment, and the results in these selected cases were good.

X-RAY EXAMINATIONS.—As in former years, patients were sent to the County Hospital, Motherwell, for X-ray examination.

59 patients were X-rayed during the year.

EAR, NOSE, AND THROAT SPECIALIST.—8 cases were referred to the consultant, 2 of tonsils and adenoids in children, 3 of laryngeal tuberculosis, 2 of laryngitis, which proved to be non-tuberculous in origin, and 1 case of otitis media.

DENTAL TREATMENT.—During the year Mr. Allan, L.D.S., made 5 visits to the Sanatorium, and treated 35 patients. The total number of extractions was 135, and of fillings, 18.

It is desired to make grateful recognition of the services of the local clergymen during the year, and of the entertainments to patients given by various parties.

Administration.

BUILDING AND GROUNDS.—No building extensions were undertaken during the year. Necessary repairs were carried out as required.

ACCOMMODATION.—The accommodation remains unchanged, and consists of 46 beds and 7 cots, allocated as follows :—Adult males, 24 ; observation beds for juvenile males, 8 ; adult females, 14 ; cots, 7. The emergency bed in the side-room of Pavilion II is not included in this number.

STAFF.—The *Medical Staff* is non-resident, and consists of a Physician-Superintendent and a Visiting Physician. The *Nursing Staff* comprises the Matron, 2 general trained sisters, 4 staff nurses, and 4 probationers, while a sixth nurse is required during the holiday period. *Domestic Staff.*—1 cook, 1 laundress, and 8 maids. *Out-Door Staff.*—1 gardener-attendant (resident), 1 fireman, and 1 assistant gardener-attendant.

COUNTY OF LANARK MATERNITY HOSPITAL,
BELLSHILL.

1936

MEDICAL STAFF.

Physician Superintendent—HENRY JAMES THOMSON, M.D., M.C.O.G.

Resident Assistant Physicians (at periods during the year).

J. S. HOGG, M.B., Ch.B.,	to 15th January.
J. E. M'CLEMENT, M.B., Ch.B.,	to 10th April.
G. I. WATSON, M.B., Ch.B.,	to 30th March.
J. N. MARSHALL CHALMERS, M.B., Ch.B.,	to 30th April.
GEO. BROWNING, M.B., Ch.B.,	to 30th June,
D. O. DICKIE, M.B., Ch.B.,	to 31st August.
JAS. MACRAE, M.B., Ch.B.,	to 15th October.
A. S. HUTCHESON, M.B., Ch.B., D.P.H.	
R. PETTIGREW, M.B., Ch.B.	

Matron Mrs. MACDOUGALL.

CONSULTANTS.

Obstetrician and Gynaecologist—S. J. CAMERON, M.B., F.R.F.P.S.
(Glas.), F.C.O.G.

Cardiologist—GEO. A. ALLAN, M.D., F.R.F.P.S.(Glas.), F.R.C.P.
(Lond.).

Otologist—JAMES ADAM, M.A., M.D., F.R.F.P.S.(Glas.).

Ophthalmologist—JOHN MORTIMER, M.D., M.R.C.P.(Edin.).

Children's Diseases—STANLEY GRAHAM, M.D., F.R.F.P.S.(Glas.).

Report by the Physician Superintendent,

HENRY JAMES THOMSON, M.D., M.C.O.G.

The form of this Report conforms to the suggestions of the Royal Society of Medicine.

At the beginning of the year, 82 patients were resident in hospital, of whom 31 were babies. Adult admissions numbered 1,978. There were 1,311 babies born, of whom 76 were born before admission and 95 were stillborn.

At the end of the year, 85 patients remained in hospital, of whom 33 were babies.

The report deals with discharges under the following headings :—

	1936.	1935.
(1) Delivered at or near full term, ...	1,327	1,326
(2) Delivered before admission, ...	71	96
(3) Discharged undelivered, ...	331	337
(4) Cases of abortion, ...	226	197
(5) Gynaecological cases and others,	22	47
(6) Babies born alive, ...	1,309	1,337
	<hr/>	<hr/>
	3,286	3,340
	<hr/>	<hr/>

1. According to the instructions of the Department of Health that overcrowding in hospital must on no account be allowed, admissions have been curtailed by allowing only cases of abnormalities, primiparae and cases where the housing conditions were bad, and in cases where overcrowding existed. During the first part of the year on several occasions gross overcrowding existed in the wards to meet the demands of those desirous of being confined in hospital.

2. The stillbirth rate increased from 6.6 per cent. to 8.1 per cent.

3. The maternal death rate is 7 per thousand (14 deaths) for all admissions, but if one excluded cases of abortion, the maternal death rate is reduced to 5.6 per thousand. Of the 226 cases of abortion dealt with 4 cases died. Three of those deaths on admission suffered from general peritonitis, while the fourth was a case of ectopic gestation in a woman of 39 years of age who was severely exsanguinated on admission. This patient also suffered from heart disease. Of the remaining deaths—10 in number—occurring in women near full term or after delivery, 5 suffered from toxæmias of pregnancy; only one attended the ante-natal clinic during her pregnancy, while 5 were primiparous women.

4. Of the 13 cases of puerperal pyrexia, 4 were cases of sepsis, 1 suffered from enteric fever and 2 from paratyphoid fever. Three of the cases attended ante-natal clinics regularly until just prior to confinement. Four did not attend during last month of pregnancy, while 6 had no ante-natal supervision.

TABLE SHOWING ADMISSIONS AND DISCHARGES FROM 1ST JANUARY, 1936, TO 31ST DECEMBER, 1936.

			In Residence, 1/1/36.		Admitted. Discharged.		In Residence, 31/12/36.	
Ante-natal,	...	...	13	327	329	2	9	
Confinement,	...	...	32	1,332	1,320	7	37	
Abortion,	...	...	4	228	222	4	6	
Post-natal,	...	...	2	69	70	1	—	
Babies born alive,	...	...	31	1,311	1,240	69	33	
Gynaecological,	...	...	—	22	22	—	—	
			82	3,289	3,203	83	85	

STILLBIRTHS.

There were 95 stillbirths during the year. The probable causes of stillbirths, maternal and foetal are given below :—

MATERNAL.				FOETAL.			
Eclampsia, ...	...	9		Prematurity, ...	...	7	
				Congenital debility, ...	...	2	
						—	9
Cardiac Disease, ...	...	1		Prematurity, ...	...	1	
						—	1
Twins, ...	...	4		Dystocia, ...	...	1	
				Prolapsed cord, ...	...	1	
				Prematurity, ...	...	1	
				Negative, ...	...	1	
						—	4
Malpresentations, ...	...	17		Dystocia, ...	...	8	
				Prematurity, ...	...	1	
				Hydrocephalus, ...	...	1	
				Anencephalus, ...	...	1	
				Prolapsed cord, ...	...	4	
				Macerated foetus, ...	...	2	
						—	17
Toxaemia of Pregnancy, ...	...	13		Prematurity, ...	...	5	
				Hydrocephalus, ...	...	1	
				Monster, ...	...	1	
				Prolapsed cord, ...	...	1	
				Negative, ...	...	5	
						—	13
Placenta Praevia, ...	...	8		Dystocia, ...	...	3	
				Prematurity, ...	...	5	
						—	8
Rupture of Uterus, ...	...	3		Premature separation of placenta, ...	...	1	
				Death in utero, ...	...	2	
						—	3
Hydramnios, ...	...	4		Foetal dropsy, ...	...	1	
				Anencephalus, ...	...	2	
				Macerated foetus, ...	...	1	
						—	4
Ante partum Haemorrhage, ...	...	8		Cerebral Haemorrhage, ...	...	1	
				Prematurity, ...	...	3	
				Asphyxia, ...	...	3	
				Premature separation of placenta, ...	...	1	
						—	8

STILLBIRTHS—*Continued.*

MATERNAL.			FOETAL.		
Contracted Pelvis, ...	5		Cerebral Haemorrhage, ...	3	
			Dystocia, ...	1	
			Prolapsed cord, ...	1	
				—	5
Delayed Labour, ...	10		Macerated foetus, ...	4	
			Prematurity, ...	1	
			Prolapsed cord, ...	2	
			Monster, ...	1	
			Compression of cord, ...	1	
			Hydrocephalus, ...	1	
				—	10
Syphilis, ...	1		Negative, ...	1	
				—	1
No apparent cause, ...	12		Macerated foetus, ...	4	
			Foetal Ascites, ...	1	
			Prematurity, ...	1	
			Monster, ...	2	
			Negative, ...	4	
				—	12
	—				—
	95				95
	—				—

MATERNAL DEATHS.

The causes of death were as follows :—

Cerebral Haemorrhage and toxaemia of pregnancy, ...	1
Acute salpingitis and uraemia (abortion), ...	1
Salpingitis—Peritonitis (abortion), ...	1
Pneumonococcal Peritonitis (abortion), ...	1
Acute Yellow Atrophy, ...	1
Toxaemia of Pregnancy, ...	2
Obstetric shock, ...	1
Obstetric Shock and postpartum haemorrhage, (admitted after confinement), ...	1
Antepartum Haemorrhage and toxaemia of pregnancy, ...	1
Pernicious anaemia, ...	1
Rupture of uterus, ...	1
Eclampsia, ...	1
Cardiac disease—Ectopic gestation, ...	1
	—
	14
	—

DISCHARGES FROM HOSPITAL CLASSIFIED ACCORDING TO NUMBER OF PREGNANCY.

Pregnancy.	1	2	3	4	5	6	7	8	9	10	11	12
Confinements.	551	265	153	96	64	46	41	28	29	21	19	14 = 1,327
Ante-natals.	122	63	31	27	28	19	7	8	9	2	7	8 = 331
Abortions.	38	39	22	31	26	13	20	11	9	3	2	12 = 226
Post-natals.	13	19	15	8	7	2	1	1	2	—	1	3 = 72
Totals.	724	386	221	162	125	80	69	48	49	26	29	37 = 1,956

Gynaecology,	22
	<u>1,978</u>

Born Alive.					Stillbirths.				
		Leg.	Illeg.				Leg.	Illeg.	
Males,	...	563	69	= 632	Males,	...	51	3	= 54
Females,	...	546	51	= 597	Females,	...	41	2	= 43
		1,109	120	= 1229			92	5	97

Percentage of Illegitimate Children.

Born Alive.					Stillbirths.				
Males,	...	...	10.9		Males,	...	...	5.5	
Females,	8.5		Females,	4.65	

Percentage of Stillbirths.

Legitimate,	7.66		Illegitimate,	4	
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Category A.—Cases which have been under ante-natal supervision (*i.e.*, bed booked) :—

					1936.	1935.
1	Delivered in Hospital,	...	...	...	1,126	1,085
2	Died undelivered,	...	...	...	—	1
3	Abortions (Including Ectopic Gestation),	...	...	...	3	—
4	Miscellaneous (B.B.A.—A/N),	...	...	...	197	197
					1,326	1,283
Died (Including undelivered),					1	4

Category B.—Cases sent in as emergencies (*i.e.*, bed not booked) :—

1	Delivered in Hospital,	...	...	...	200	241
2	Died undelivered,	...	...	...	1	2
3	Abortion (Including Ectopic Gestation and Mole),	...	...	...	224	188
4	Gyn,	...	...	...	22	47
5	Miscellaneous (P/N—A/N),	...	...	...	204	242
					651	720
Died (Including undelivered),					13	6

ANTE-NATAL CASES—INDOOR.

There were 331 cases treated in the ante-natal wards, and discharged undelivered during the year :—

CASES ADMITTED TO ANTE-NATAL WARDS ;
DISORDERS OR ACCIDENTS OF PREGNANCY.

Disorder or Accident of Pregnancy.	Total Number of Cases.		Mother.	
			Lived.	Died.
1 Toxaemia of Pregnancy :—				
(a) Albuminuria, Pre-eclamptic Toxaemia and Nephritic Toxaemia,	71		71	—
(b) Eclampsia,	1		—	1
(c) Hyperemesis,	51		51	—
2 Antepartum Haemorrhage,	9		9	—
3 Threatened Abortion and 1 Carneous Mole,	28		28	—
4 Pulmonary Disease—non-tuberculosis,	5		5	—
5 Pulmonary Tuberculosis,	1		1	—
6 Cardiac Disease,	8		8	—
7 Contracted Pelvis,	13		13	—
8 Urinary Sepsis with Pyelitis,	24		24	—
9 Discharged as not in labour,	54		54	—
10 Retroverted gravid uterus,	1		1	—
11 Fibroid complicating pregnancy,	4		4	—
12 Leucorrhoea and Bartholinitis,	3		3	—
13 Abnormal Presentations and Hydramnios,	12		12	—
14 Anaemia and Debility,	9		9	—
15 Others,	37		37	—
	331		330	1

CASES CONFINED IN HOSPITAL

	Bellshill.	Shotts.	Cambuslang.	Blantyre.	Totals.	Died.	Pyrexia.	Sepsis.
Cases who had ante-natal supervision :—								
1. Cases attending until date of confinement.	252	41	78	33	404	—	3	—
2. Cases attending until 1 month prior to confinement.	45	3	15	6	69	1	2	—
3. Cases attending irregularly.	240	44	43	34	361	—	3	2
4. Cases with only one attendance.	191	17	23	8	239	1	—	—
	728	105	159	81	1,073	2	8	2
Cases with no ante-natal supervision,,								
	—	—	—	—	883	12	1	2
	728	105	159	81	1,956	14	9	4

The following detailed tables are printed in the separate report issued by the Physician Superintendent, but have not been reprinted in this volume owing to lack of space :—

1. Cases treated in the Hospital before labour.
2. Posterior position of the Occiput.
3. Twins.
4. Normal Breech Presentations.
5. Complicated Breech Presentations.
6. Shoulder Presentations.
7. Face and Brow Presentations.
8. Hydramnios.
9. Prolapse of Cord.
10. Forceps (labour not induced).
11. Induction of Labour (Normal Delivery).
12. Induction of Labour (Forceps Delivery).
13. Caesarean Section.
14. Version.
15. Embryotomy and Craniotomy.
16. Contracted Pelvis—Spontaneous Delivery, Induction of Labour, etc.
17. Cases of Albuminuria.
18. Eclampsia.
19. Accidental Ante-partum Haemorrhage.
20. Placenta Praevia.
21. Post-partum Haemorrhage.
22. Manual Removal of Placenta.
23. Cardiac Disease.
24. Sundry Cases.
25. Lacerations of Perineum, Vagina, etc.
26. Infants' Report.
27. Stillbirths.
28. Infant Deaths.
29. Foetal Abnormalities.
30. Ophthalmia.

COMPLICATED LABOURS.

Category A.—i.e., Cases under ante-natal supervision :—

					Primi- parae.	Multi- parae.	Total.
1	Albuminuria,	...	...	...	35	28	63
2	Eclampsia,	...	...	...	5	1	6
3	Hyperpiesis,	...	...	...	7	7	14
4	Hyperemesis,	...	...	...	—	2	2
5	Pyelitis,	...	...	...	4	2	6
6	Contracted Pelvis,	...	...	...	16	15	31
7	Antepartum Haemorrhage :—						
	(a) Placenta Praevia,	...	...	...	1	1	2
	(b) Accidental Haemorrhage,	...	...	...	2	9	11
8	Cardiac Disease,	...	...	...	1	1	2
9	Respiratory Disease,	...	...	...	2	2	4
10	Others :—						
	Hydramnios,	...	...	...	1	4	5
	Phlebitis and Thrombosis,	...	...	...	—	3	3
	Chorea,	...	...	...	1	—	1
	Premature Labour,	...	...	...	4	8	12
	Epilepsy,	...	...	...	1	—	1
	Hysterical "fits,"	...	...	...	1	—	1
	Anaemia,	...	...	...	1	3	4
	Fibroid complicating pregnancy,	...	...	...	3	2	5
	V.D.,	...	...	...	3	3	6
11	Malpresentations and positions,	...	...	...	18	28	46
					<u>106</u>	<u>119</u>	<u>225</u>

Category B.—i.e., Cases sent in as emergencies :—

					Primi- parae.	Multi- parae.	Total.
1	Albuminuria,	...	...	...	9	17	26
2	Eclampsia,	...	...	...	10	6	16
3	Hyperemesis,	...	...	...	2	1	3
4	Hyperpiesis,	...	...	...	—	1	1
5	Pyelitis,	...	...	...	3	4	7
6	Contracted Pelvis,	...	...	...	7	3	10
7	Antepartum Haemorrhage :—						
	(a) Placenta Praevia,	...	...	...	2	9	11
	(b) Accidental Haemorrhage,	...	...	...	3	7	10
8	Cardiac Disease,	...	...	...	1	4	5
9	Respiratory Disease,	...	...	...	—	1	1
10	Others :—						
	Hysteria and Epilepsy,	...	...	...	1	1	2
	Hydramnios,	...	...	...	—	2	2
	Anaemia,	...	...	...	—	3	3
	Premature Labour,	...	...	...	1	7	8
	Fibroid complicating pregnancy,	...	...	...	2	—	2
	Rupture of Uterus,	...	...	...	—	3	3
	Others,	...	...	...	5	1	6
11	Acute Yellow Atrophy,	...	...	...	1	—	1
12	Malpresentations and Positions,	...	...	...	6	7	13
					53	77	130

ABORTIONS.

There were 226 cases of abortion, which have been classified as follows :—

Types.	Number.Curettage.		Alive.	Died.	Pyrexia or Sepsis.	
					P.	S.
Complete,	89	—	88	1	1	—
Induction of Abortion, ...	19	5	19	—	—	1
Incomplete,	111	86	109	2	2	3
Missed Abortion,	1	—	1	—	—	—
Hydatiform Mole,	3	1	3	—	—	—
Abdominal Hysterectomy, ...	1	—	1	—	—	—
Ectopic Gestation,	2	—	1	1	—	—
	226	92	222	4	3	4

POST-NATALS.

There were 72 cases in the above group, viz. :—

	Number.	Alive.	Died.	Pyrexia.	Sepsis.
B.B.A.,	60	60	—	—	—
Post-partum Haemorrhage and Retained Placenta,	6	5	1	—	—
Others,	6	6	—	—	—
	72	71	1	—	—

GYNAECOLOGICAL.

There were 22 cases treated during the year, viz. :—

Group.	Number.	Alive.	Died.
Sterility,	1	1	—
Pelvic Tumours,	3	3	—
Endometritis and Metritis,	6	6	—
Others,	12	12	—
	22	22	—

CONTRACTED PELVIS.

There were 45 cases of contracted pelvis confined, of which 35 had been under ante-natal supervision and 10 were emergency cases. There were no maternal deaths, 8 stillbirths and 3 neo-natal deaths. There was 1 case of puerperal pyrexia—diagnosed as paratyphoid fever—removed to County Hospital, Motherwell.

CASES UNDER ANTE NATAL SUPERVISION (*Category A*).

Mode of Delivery.	No. of Cases.	Mother.		Child.		
		A	D	A	SB	D
Spontaneous,	4	4	—	2	2	—
Induction of Labour,	14	14	—	13	1	—
Forceps Delivery,	7	7	—	4	3	—
Caesarean Section,	10	10	—	8	—	2
	35	35	—	27	6	2

CASES SENT IN AS EMERGENCIES (*Category B*).

Mode of Delivery.	No. of Cases.	Mother.		Child.		
		A	D	A	SB	D
Spontaneous,	3	3	—	2	1	—
Forceps Delivery,	2	2	—	2	—	—
Caesarean Section,	4	4	—	3	—	1
Craniotomy,	1	1	—	—	1	—
	10	10	—	7	2	1

The undernoted table shows the list of cases of eclampsia treated during the last nine years, with the number of deaths and the percentage of maternal mortality :—

Year.	Cases.	Died.	Percentage Mortality.
1928,	24	2	8·3
1929,	22	3	13·6
1930,	38	4	10·5
1931,	8	2	25·0
1932,	9	2	22·2
1933,	13	2	15·3
1934,	12	2	16·6
1935,	17	1	5·8
1936,	26	5	19·2
	169	23	13·6

N.B.—During 1936, 5 cases of eclampsia were treated in the outdoor practice, with no maternal deaths.

MORBIDITY.

A or No. B	Reg. No.	Age.	Gravida.	Maturity.	Type of Labour.	Method of Delivery.	Cause of Temperature.	Duration of Temperature.	Result.		Remarks.
									M	C	
1	A	412	26	1	40	Normal.	Spontaneous.	No apparent cause Tr. albumen in urine.	3 days.	W	A Discharged well. Urine clear.
2	A	373	21	1	40	Normal.	Spontaneous.	Manual removal of placenta. Septic endometritis. Reaction to blood trans- fusion.	24 hours.	W	A C.S. pills not taken by patient. Same found in locker drawer. Blood transfusion. Cardiac weakness.
3	B	340	38	10	40	Normal.	Spontaneous.	Aplastic anaemia.	2 days.	Imp. SB	Hyperremesis, jaundiced three blood trans- fusions given.
4	B	422	27	1	40	Twins.	First manual delivery. Second spontaneous.	Septic endometritis. Profound anaemia.	2 rises, but not main- tained.	Imp. D	First twin died. Trans- ferred to Calder- bank House.
5	A	461	18	1	19	Incomplete abortion.	Spontaneous.	Probably re- tained product.	24 hours.	Trans- ferred to County Hospital Mother- well.	T.B. hip joint. Con- tracted pelvis.
6	A	615	17	1	40	Spontaneous.	Normal.	Unknown origin.	48 hours.	Trans- ferred to County Hospital, Mother- well.	Has had a catarrhal cold.

MORBIDITY—Continued.

A or No. B	Reg. No.	Age.	Gravida.	Maturity.	Type of Labour.	Method of Delivery.	Cause of Temperature.	Duration of Temperature.	Result. M C	Remarks.
7	B	864	25	2	16	Incomplete abortion.	Partly spon- taneous. Com- pleted by digital curettage.	Retained product.	3 days.	W — Seen in own home. Profound toxæmia of pregnancy. Temp. elevated. Two blood transfusions given, removed to hospital on third day. Temp. settled 24 hours after admission.
8	B	823	36	9	—	Incomplete abortion.	Spontaneous.	Sapraemia.	Fluctuated for four days.	W — Blood transfusion given.
9	A	890	22	2	40	Caes. Section.	—	Typhoid fever.	5 days.	Transferred to County Hospital, Mother- well.
10	A	925	17	1	40	Normal.	Spontaneous.	No apparent cause. Slight engorgement of breasts.	Intermittent for four days.	W A Widal test—negative. Typhoid fever con- tact.
11	A	1079	19	1	40	Delayed.	Forceps.	Manual removal of placenta. Perineal tear —2 s.w.s.	Irregular for two to four days.	T'fd. A To Motherwell County Hospital.

12 B	1072	25	4	12	Ind. of abort.	D and C—con- tents very slowly expelled.	Sapraemia.	2nd and 10th days.	Imp. —	Hyperemesis ; acidosis; anaemia ; blood transfusion.
13 A	1270	32	1	40	Delayed labour.	Low forceps.	Pyelitis.	24 hours.	W A	Blood transfusion.
14 B	1765	30	3	12	Incomplete abortion.	Spontaneous.	Salpingitis. Peritonitis.	On admission and 48 hours after.	D —	Laparotomy ; free drainage.
15 B	1686	34	1	40	Delayed.	Spontaneous.	In M.C.H. found to be pyometra.	48 hours.	T 1st D	Eclamptic seizure
16 A	1903	22	2	40	Normal.	Spontaneous.	No apparent cause while in hospital.	56 hours.	2nd A	during second stage.
17 A	1885	34	8	40	Normal.	Spontaneous.	No apparent cause while in hospital.	3 days.	T'fd A	To County Hospital, Motherwell, diag- nosed as paratyphoid
18 B	1866	37	7	38	Caes. Sect.	—	? Pyometritis.	6 days.	T'fd: A	To County Hospital, Motherwell, diag- nosed as para- typhoid.
19 A	1984	27	6	40	Normal.	Spontaneous B.B.A.	Pulmonary congestion.	1st and every 5th and 6th days.	T'fd. A	To County Hospital, Motherwell.
									W A	Chest clear on dis- missal.

	Discharged.	Died.
Number of Ante-Natal Cases,	229	2
Number of Cases of Puerperal Sepsis,	4	—
Number of Deaths from Puerperal Sepsis, removed to Isolation Hospital,	—	1
Number of Cases of Puerperal Pyrexia (D.O.H.), ...	9	—
Number of Cases of Puerperal Sepsis and Pyrexia,	13	—
Rate per 1,000 Births Puerperal Sepsis=2·8.		
Rate per 1,000 Births, Puerperal Sepsis and Pyrexia (D.O.H.)=9·1.		
Number of Cases of Morbidity :—		
Cases of Sepsis, 4	} = 21 = 14·7 per 1,000.	
Cases of Pyrexia (D.O.H.), 9		
Deaths of Cases Confined, 8		
Number of Cases of Abortion,	226	—
Cases notifiable after admission,	6	—
Number of Deaths after Abortion,	—	4
Total Discharges,	1,975	14

Death Rate per 1,000 Discharges=7·08 per 1,000.

Death Rate excluding Abortions=5·7 per 1,000.

With further reference to the prophylaxis of puerperal sepsis and pyrexia, calcium sulphide is being used as a routine line of treatment in large doses of gr.-3 twice daily, for four weeks previous to confinement, while during the puerperium every case is treated by a pill called "E.Q.C." which contains :—

Ergotin gr.-3.

Quinine Hydrochloride gr.-1.

Calcium Sulphide gr.-3.

one pill given twice daily in normal cases and the dose doubled in abnormal cases.

During the year under review no cases of mastitis or phlegmasia alba dolens have occurred.

The cases of puerperal sepsis were :—

(1) Temperature first elevated on the 7th day of the puerperium. The baby had discharging eyes and a pure culture of the *Gonococcus* was isolated.

(2) Case of Wassermann ++, appeared healthy until confinement when the patient was confined normally, but placenta very adherent, and there was

severe post-partum haemorrhage, necessitating two blood transfusions. The placenta was removed manually. The patient died 85 days after delivery.

(3) Case of eclampsia for which labour was induced and twins were born. The case was a moderate degree of sepsis.

(4) A case with a bad obstetric history—four previous pregnancies—one child lived 4 days, the others were stillborn. In this pregnancy Caesarean Section was performed, but temperature did not develop until the 18th day of puerperium. The patient had, however, a very large uterus throughout the puerperium.

Of the nine cases of pyrexia the undernoted shows the conditions from which the patients suffered :—

Anaemia of Gestation,	...	1	
Insanity,	...	1	Removed to Mental Hospital.
Paratyphoid,	...	2	Removed to Isolation Hospital.
Typhoid,	...	1	Removed to Isolation Hospital.
Manual removal of placenta,		1	
Pyelitis,	...	1	
No observable cause,	...	2	
		—	
		9	
		—	

STAFF.

The resignation of Miss Agnes Crawford from the post of Matron, on having completed her term of service, closes an association with the Hospital which dates from the year 1919. During that period Miss Crawford carried out her duties in exemplary fashion, and by faithful service she provided an adequate and competent nursing unit to cope with the rapid increase in the number of patients admitted to Hospital. At all times she took a deep and kindly interest in patients and nurses, and it is the desire of all who have been privileged to work with her that she may long enjoy a well-earned leisure.

Her successor, Mrs. Macdougall, of Calderbank, acted as a nursing sister at Bellshill before going to Calderbank, so that she is familiar with the duties connected with the post. Her appointment was well merited and she enters on her charge with the loyal support and good wishes of the nursing and medical staff.

The staff of the Institution is as follows :—

- 1 Physician Superintendent.
- 2 Resident Assistant Medical Officers.
- 1 Consulting Gynaecologist.
- 1 Consulting Cardiologist.

Staff—*Continued.*

- 1 Consulting Physician for ear, throat and nose.
- 1 Consulting Ophthalmologist.
- 1 Consulting Physician for diseases of children.
- 1 Matron.
- 5 Sisters.
- 12 Staff Nurses.
- 2 Outdoor Nurses.
- 25 Maids.
- 4 Chauffeurs.
- 3 Firemen.
- 2 Typists.
- 1 Sewing Maid.

There are, in addition, 38 pupils taking the course of Midwifery training.

TRAINING OF PUPIL MIDWIVES.

			Nurses Admitted.	Free Training.	Deposit Only.	Fee Paying.	Total Fee.
1921-22,	...	...	13	10	—	3	£60
1923,	...	...	17	7	—	10	114
1924,	...	...	21	1	5	15	199
1925,	...	...	26	1	6	19	373
1926,	...	...	26	—	2	24	500
1927,	...	...	12	—	4	8	180
1928,	...	...	19	2	10	7	180
1929,	...	...	25	1	15	9	200
1930,	...	...	25	—	9	16	184
1931,	...	...	31	—	3	28	283
1932,	...	...	40	—	15	25	210
1933,	...	...	48	—	15	33	291
1934,	...	...	54	—	8	46	329
1935,	...	...	55	—	12	43	226
1936,	...	...	72	—	—	38	192
			484	22	104	324	3,521

Payments by patients amounted to £1,392 6s. 3d.

Payments by pupil nurses amounted to £192.

From 16th July, pupils were paid at a salary rate of £42 per annum, and no fees accepted.

MATERNITY OUTFITS.

The following equipment is sterilised and packed at the hospital in sealed packets and sold for 4s. 6d. each through the medium of the Child Welfare Centres. A 12-inch basin is now added to the equipment and the selling price remains the same :—

- 12 Sanitary Towels.
- 4 doz. Swabbing Squares.
- 1 Yard Jaconet.
- 2 Square Gauze Tissues, 19 ins. by 16 ins.
- 3 Cord Ligatures.
- 6 Cord Dressings.
- 1 Doz. Assorted Safety Pins.
- 1 12-in. Basin.
- 1 Doctor's Towel.
- 1 Nail Brush.
- 1 Piece of Soap.

AMBULANCE MILEAGE.

The total number of miles run by the two ambulances during the year 1936 was 54,766 miles.

MATERNAL DEATHS.

A
or
B Reg. No.

- | | | |
|---|------|--|
| B | 2001 | Eclampsia A/P ; confined spontaneously—premature stillbirth ; uraemic seizures (2) on 5th day and died. Sent in as antepartum haemorrhage but no bleeding p.v. on or after admission, face very puffy, colour poor, had eclamptic seizure on admission ; confined normally, 6 hrs. after admission, of premature stillborn child ; no further fits but urinary output very poor. Became more drowsy and puffy. Did not respond to treatment. On 5th day no urine excreted, became very drowsy. Had uraemic seizure in evening—recovered consciousness slightly, but took second seizure and died 40 minutes after. |
|---|------|--|

- B 351 Admitted as advanced toxæmia of pregnancy—urine + + +, B.P. 170/95, general oedema, visual disturbances. Induction of labour (surgical) performed. Patient took 4 eclamptic seizures when labour commenced—lumbar puncture done and fluid withdrawn (under high pressure). Stomach lavage done under chloroform and mist. senna co. left in stomach. Forceps delivery of a stillborn child—patient became rapidly worse—dyspnoea and cyanosis very marked, breathing stertorous. Patient died on evening of 1st day after confinement.
- B 438 Delayed labour (3 days) before admission. On admission well marked oedema of feet, legs and lower abdomen, urine albumen + +, vomiting, tenderness of abdomen. Forceps applied to 1st twin, interval of 8 hours, then forceps applied to 2nd twin. Manual removal of placenta after 3rd stage of 3 hours. Some hæmorrhage from lacerated cervix; condition poor, hæmorrhage controlled. Gum saline, 1 pt.—glucose 5 per cent. and blood transfusion 1 pt. given. Oedema became generalised and more marked, very drowsy—suppression of urine. Dyspnoea—skin jaundiced. Became semi-comatose. Died some hours later.
- B 527 History of bleeding per vaginam with colicky pains for 1 week. Very shocked on admission. Ectopic gestation 5 weeks. Left salpingo-ophorectomy 4 hours after admission. Drainage tube inserted. Rise of temperature and pulse rate on 1st evening. Blood transfusion given. More comfortable next day, but pulse rapid. Third day, marked distension of abdomen—dyspnoea. Pulse rapid and weak. Cardiac failure. Died 5 a.m.
- B 915 Post-natal. Forceps delivery before admission—retained placenta. Perineum badly torn and sutured before admission. History of oedema of lower limbs. On admission definitely shocked, pulse weak and running. Blood transfusion given. Patient collapsed suddenly (cardiac failure) under anaesthesia just as placenta was being withdrawn from uterus. All usual methods of resuscitation tried, but proved fruitless. Died 5½ hours after admission.
- B 1201 Delayed labour; 3 hours labour with strong pains—pains off completely—withdrawal of presenting part. Chest condition—cyanosed. *Four days later*: slight vaginal hæmorrhage and pains. *Twenty-four hours later*: internal version done—manual delivery of breech (anaesthetic), attempted manual delivery of placenta—unsuccessful. Cervical tear discovered, laparotomy done and anterior fornix repaired. Placenta removed from peritoneal cavity. Blood transfusion given. On 4th day of puerperium, temperature rose to 105°, pulse poor but not rapid. Died 6.15 a.m.

- B 1260 Hyperemesis—severe, and elevation of temperature on admission. No vomiting, general abdominal pain—no rigidity. Aborted complete 2 days after admission, with complete relief of symptoms. T.P.R. fairly normal during next 4 days. Abdominal swelling present—extreme tenderness on palpation. Diarrhoea evening of following day—condition worse, cyanosed—vomiting profusely. Intestinal obstruction treated—slight improvement. Six hours later—sudden collapse—comatose. Death rapid.
- Post-mortem examination: Primary generalised pneumococcal peritonitis with paralytic ileus. 8th day after abortion.
- B 1286 Pernicious anaemia of pregnancy—blood transfusion, 12 oz. given. Confined spontaneously (precipitate) of premature (spina bifida) child. Very shocked and dyspnoea. Blood transfusion commenced, but patient died shortly after. Obstetric shock.
- B 1406 Abortion—acute salpingitis. Patient aborted spontaneously in own home. Debris cleared out by local doctor. Severe abdominal pain with muscular rigidity—vomiting and rapid pulse. Admission to hospital requested. Case referred to County Hospital, Motherwell, but refused. Admitted here in toxic condition—acute abdomen, post fornix drainage—thin serous fluid. Later—laparotomy done and acute left salpingitis found. *Twenty-four hours later*—had suppression of urine. Did not respond to treatment. Uraemic condition worse and patient died in coma—5th day after admission.
- 10 1492 Delayed labour—having “pains” for 3 days, membranes ruptured, no “pains”—temperature 101.4°, pulse 140. Partly dilated, foetal heart not heard. Sedative given, complained of sore throat, vague pains in legs and back. *Ten hours later*—high forceps delivery of stillborn large child—brow presentation. Patient extremely shocked, no excessive blood loss. Gum acacia 2 pints given intravenously with glucose, 50 per cent. Improved. Later in same day, colour grey pallor—pulse thin and rapid—respirations very rapid and laboured. Uterus firmly contracted. Obviously sinking. *Six p.m.*: Blood transfusion commenced but not completed. Died 7.5 p.m. Obstetric shock.
- B 1514 Eclampsia—admitted on account of pre-eclamptic toxæmia which became progressively worse, B.P. 250/146; sudden onset of eclamptic seizures accompanied by attacks of transient blindness. Sensible later in evening. Not in labour. Became restless and irritable, but settled down after H.I. of morphia. Slept naturally for some hours—

12 midnight—condition no worse—pulse fair—asleep. 1.45 a.m.: Patient died suddenly with no warning—while apparently still asleep. Ante-partum eclampsia and cerebral haemorrhage.

- B 1765 Septic incomplete abortion—patient was 6 days ill at home when incomplete spontaneous abortion took place. On admission to hospital patient very ill, temperature elevated, pulse rapid and abdomen distended with tenderness and rigidity. Tongue dry and coated, bright red discharge p.v. on following day. Dilation and curettage done—laparotomy performed (under general anaesthetic)—salpingitis and free pus evacuated, drainage tube inserted, condition of patient poor, blood transfusion given with slight improvement which was not maintained. General condition became rapidly worse and patient sank into unconsciousness. Died 12 hours after operation.
- B 2010 Pre-eclamptic toxæmia—own doctor called in 5 days prior to admission to hospital on account of puffiness of feet and legs. On admission no evidence of oedema, B.P. 180/110, albuminuria marked, complained of dimness of vision and headache following day, B.P. 210/115. Membranes artificially ruptured. Had fit prior to delivery and second fit immediately following delivery. Condition rapidly worse—from one convulsion into another. Consciousness was not regained—temperature rose to 105°F., treatment carried out throughout—sedative and eliminative—with no improvement. Patient died 2½ hours after delivery.
- B 2041 Pre-eclamptic toxæmia—own doctor consulted 4 days before admission on account of lassitude—vomiting and puffiness of face. On admission had labour pains and slight bleeding p.v. No evidence of oedema B.P. 176/120, urine contained albumen ++. Toxic looking, membranes ruptured artificially at 1.30 p.m. Sedative given—had slight eclamptic seizure immediately after. Confined spontaneously of premature stillborn child at 7.20 p.m. Placenta showed evidence of concealed haemorrhage. During next two days—cough, sleeplessness, spells of depression and slight departures from normal behaviour. Became more restless and resistive—apparently delirious at times. Sedative ordered, but patient collapsed suddenly, complaining of pain but unable to say where. Lapsed into comatose condition. Shock treated but coma continued and patient died.

Post-mortem : Cerebral haemorrhage—Pre-eclamptic toxæmia.

SPECIMENS SENT TO COUNTY LABORATORY DURING 1936.

Specimen.	Positive.	Negative.	Total.	Per-centage Positive
Throat Swabs for S. Haemolyticus—Staff,	155	3,629	3,784	4.1%
Throat Swabs for S. Haemolyticus—Patients,	38	1,583	1,621	2.3%
Vaginal Swabs for S. Haemolyticus—Patients,	10	1,611	1,621	.6%
			7,026	

SPECIMENS SENT FOR ASCHIEM-ZONDEK TEST—PREGNANCY DIAGNOSIS
LABORATORY, EDINBURGH.

No. of Specimens Sent.	Results.	In accordance with progress of symptoms.	Incorrect Results.
89	Positive, ... 41	87	2
	Negative, ... 35		
	Uncertain, ... 7		
	Indicative of death of foetus, ... 2		
	Others, ... 4		
	89		

MATERNITY EMERGENCY DOMICILIARY TREATMENT.

There has been a scheme in operation for five years whereby patients, in cases of grave emergency, are attended in their own homes by a staff of two doctors and two well-trained nurses from this hospital. The scheme was first drafted out in 1925 but not put into operation until 1931.

Immediate treatment can be carried out in cases where a patient suffers from severe haemorrhage, eclampsia, or where some obstetric complication has been recognised too late and a degree of shock is sustained. A complete outfit—detailed below—is carried by this staff to each case.

The need for this became apparent to me some years ago when many serious cases died in the ambulance or shortly after admission. If one realised that a normal patient coming to an Institution is never enthused over the prospect and a degree of apprehension is present, much more will that apprehension be increased where severe exhaustion by reason of some obstetrical complication exists.

A car is provided by the Local Authority to carry five people and the equipment, which weighs approximately 2 cwts., so that a patient will, to the extreme limits of the County, receive as speedy attention as possible. Cases residing at a long distance receive little ante-natal care.

I am of opinion that this method of treatment is doing much to reduce the maternal mortality appreciably and such is already manifested in the lessening of the maternal mortality in the Local Authority's area, and to a great extent in the admissions to the hospital.

During the past 5 years the maternal mortality rate has been 5 per 100.

EQUIPMENT.

Gowns.	Quinine Hydrochloride gr. 1.
Towels.	Ergot gr. 11.
Swabs.	Calcium Sulphide Capsules.
Large Gauze and Packing.	Catgut.
Gloves.	10 c.c. Syringe.
2 Rubber Aprons.	Needles.
Masks.	1 Lumbar Puncture Needle.
2 Scalpels.	1 Sterile Test-Tube.
Silkworm Gut.	1 Razor.
Nail Brushes.	Jaconette.
Soap.	1 50 c.c. Record Syringe.
Gum Saline.	Ligatures (3).
Normal Saline (2 Bottles).	Higginson's Syringe.
Sodium Citrate (2 Bottles).	2 Stomach-Tubes.
Methylated Spirits.	Catheters.
Olive Oil.	1 Enamel Jug.
Soap for Enemata.	1 Enamel Filler.
Chloral and Bromide.	1 2-pt. Measure.
Glycerine.	Intravenous Saline Apparatus.
Whisky.	Midwifery Forceps.
Collodion.	Speculum.
Ethereal Soap.	Vulsella (2 Pairs, Single-Toothed and Double).
Ethereal Soap and Acriflavine.	Uterine Sound.
Chloroform.	Playfair's Probe.
6 amps. Coramine.	1 Blunt Curette.
5 amps. Camphor in Oil.	1 Sharp Curette.
1 Bottle Paraldehyde.	7 Pairs Pressure Forceps.
1 Bottle Ether.	5 Dilators.
1 Bottle Mist. Senna Co.	2 Basins.
1 Bottle Sodium Chloride.	1 Pint Measure.
Morphine amps.—gr. $\frac{1}{8}$ (2), gr. $\frac{1}{4}$ (1), gr. $\frac{1}{12}$ (1).	1 Pint Measure—Glass.
3 amps. Veratrine.	1 Filler—Glass.
6 amps. Pituitrin.	1 Blood Transfusion Apparatus.
2 amps. Solution of Glucose.	1 Queen Charlotte's Nitrous Oxide Apparatus.
Aspirin gr. V.	

The undernoted is a statement showing the cases of consultation and complications dealt with during the year :—

CONSULTATIONS WITH GENERAL PRACTITIONERS.

Post-partum Haemorrhage,	2
Post-partum Haemorrhage with Retained Placenta, ...	4
Ante-natal,	23
Eclampsia,	4
Dystocia,	9
Abortion,	20
Ante-partum Haemorrhage,	5
Post-natal,	3
Delayed Labour,	1
Retained Placenta,	1
Pneumonia (Ante-natal),	1
	—
	73
	—

CASES ATTENDED IN OWN HOME.

Eclampsia :—

A/P.,	4
P/P.,	1
	— 5
A.P.H.,	6
P.P.H.,	3
Adherent Placenta,	5
Toxaemia of Pregnancy,	2
Obstetric Shock,	—
Abortion,	19
Delayed Labour,	6

Consultations :—

Abnormal Presentation,	...	...	...	...	5	
Delayed Labour,	...	...	...	...	3	
Others, ... ..	...	...	...	...	19	
Toxaemia of Pregnancy,	...	...	...	...	9	
					—	36
Consultations—P/N.,	...	...	...	...	...	3
						—
						85
						—

RESULTS OF TREATMENT.

BLOOD TRANSFUSIONS.

	In Hospital. In own home.	
Obstetric Shock,	7	4
Caesarean Section,	1	—
A.P.H.,	3	1
P.P.H.,	2	1
Placenta Praevia,	2	—
Retained Placenta,	6	—
Retained Placenta and P.P.H.,	—	3
Secondary Anaemia,	9	—
Abortion,	12	4
Ectopic Gestation,	1	—
Ruptured Uterus,	2	—
Advanced Toxaemia of Pregnancy,	1	—
	—	—
	46	13
	—	—

CONSULTATIONS AND OPERATIONS.

Obstetrician and Gynaecologist.

Caesarean Section, ...	18	T.B., ...	1
		Contracted Pelvis, ...	17
Induction of Labour, ...	35	Toxaemia of Pregnancy, ...	11
		Cardiac Disease, ...	5
		Acute Pyelitis, ...	1
		Contracted Pelvis, ...	9
		Hydramnios, ...	5
		Previous History, ...	1
		Diabetes Mellitus, ...	2
		Albuminuria, ...	1
Induction of Abortion, ...	9	Cardiac, ...	2
		T.B., ...	5
		Toxaemia of Pregnancy, ...	1
		Hyperemesis, ...	1
Dilation and Curettage, ...	4	Sterility, ...	2
		Incom. Abortion, ...	1
		Hydatidiform Mole, ...	1
Laparotomy, ...	2	Rupture of Uterus, ...	1
		Septic Abortion and Peritonitis, ...	1
Perineorrhaphy, ...	1	Complete Perineal Tear, ...	1
Salpingectomy, ...	1	Ectopic Gestation, ...	1
Episiotomy, ...	1		
Version, ...	1		
Examination, ...	18	Contracted Pelvis, ...	8
		Toxaemia of Pregnancy, ...	2
		Spurious Pregnancy, ...	1
		Hydatidiform Mole, ...	1
		Hydramnios, ...	1
		Death of Foetus, ...	—
		Tumour, ...	1
		Pregnancy, ...	2
		Ovarian, ...	1
		Fibroid complicating Pregnancy, ...	1

Otologist.

Consultation for baby's ear, 1

Cardiologist.

Cardiac, ... 11

Anaemia, ... 2

Urologist.

Pyelitis, ... 2

Dermatologist.

Skin condition, ... 1

DENTAL CARE.

Carried out at B.M.H. Clinic. From 24/9/36 to 31/12/36.

No. of cases examined who required treatment, ...	86
No. of cases who had treatment carried out, ...	46
No. of cases who failed to appear for treatment, ...	25
No. of cases to report after confinement for treatment, ...	15
Total No. of cases seen by Dentist, ...	160

ANTE-NATAL CLINICS.

	B.M.H.	Shotts.	Blantyre.	Cambuslang.	Total.
Normal, ...	534	129	104	128	895
Albuminuria, ...	91	12	20	43	166
Hyperpiesis, ...	97	27	11	23	158
Hyperemesis, ...	29	4	4	7	44
Pyelitis, ...	11	1	1	—	13
Hydramnios, ...	13	1	—	2	16
Contracted Pelvis, ...	37	4	2	10	53
Cardiac, ...	21	7	2	5	35
Respiratory, ...	20	1	5	2	28
Haem. and Threat.					
Abortion, ...	44	5	3	6	58
Leucorrhoea, ...	25	2	6	7	40
V.V. and Haemorrhoids,	58	5	5	13	81
Dental Caries, ...	40	7	8	13	68
Abdominal Pain, ...	12	—	—	1	13
Previous Abnormalities,	85	21	8	13	127
Debility, ...	28	4	4	6	42
Abnormal Presentation,	41	—	5	1	47
Others, ...	62	4	8	13	87
	1,248	234	196	293	1,971

	B.M.H.	Shotts.	Blantyre.	Cambuslang.	Total.
Cases referred to A.N.					
Ward,	73	21	10	20	124
Cases referred to Family					
Doctor,	52	2	1	6	61
Cases referred to C.W.					
Clinics,	88	—	—	—	88
Cases treated at A.N.					
Clinic,	1,035	211	185	267	1,698
Total No. of Attendances,	3,540	3,959	870	1,601	9,970
No. of First Attendances,	1,248	234	196	293	1,971

POST-NATAL, GYN. AND OTHERS.

	B.M.H.	Shotts.	Blantyre.	Cambuslang.	Total.
<i>P/N.</i>					
Debility,	3	3	—	4	
Subinvolution,	7	—	—	1	
Albuminuria,	1	—	—	2	
Others,	8	11	1	4	
<i>Gyn.</i>					
Menstrual Disorders, ...	20	5	2	6	
Cervical Polypus, ...	4	—	—	—	
Uterine Displacements, ...	5	—	—	1	
Sterility,	3	3	1	—	
Cervical Tears, ...	2	3	1	—	
Others,	19	16	5	7	
Leucorrhoea,	—	4	—	—	
Total No. of Attendances,	102	125	20	45	292
No. of First Visits, ...	72	45	10	25	152

CONTRACEPTIVE CLINIC.

First Visits.

Cardiac Disease,	4
Chronic Nephritis,	1
	— 5
Revisits,	32

Operations performed.

	Induction of Abortion.	Caesarean Section.
Cardiac Disease,	2	—
Tuberculosis,	—	1
	—	—
	2	1
	—	—

On the first Sunday of September, 1936, religious services were commenced at the Institution for the staff only. These services have been well attended during the latter part of the year. The under-noted clergymen and laymen have given their services :—

Rev. A. Watt.

Rev. Wm. Hamilton.

Rev. F. S. Watson.

Rev. R. G. Paterson.

Rev. A. Fletcher.

Rev. W. Gillon.

Mr. J. T. Smith.

Rev. W. M'Menemy.

Rev. A. D. Law.

Rev. J. M'Kenzie.

Rev. J. Blair.

Rev. K. M'Leod.

Rev. M. S. Dickson.

Rev. A. G. Taylor.

Rev. Chalmers Grant.

Rev. J. B. Wilson.

Rev. A. Dale.

Rev. W. Gilmour.

Rev. J. Meichie.

Rev. N. M. Murray.

Rev. J. Murray.

Mr. Greig.

CALDERBANK HOUSE, BAILLIESTON.

Physician-Superintendent—THOMAS M. HUNTER, M.D., D.P.H.

Visiting Otologist—JAMES ADAM, M.D., F.R.F.P.S.(G.).

Sister-in-Charge—Miss J. W. MAXWELL.

Administration.

ACCOMMODATION consists of 14 adult beds (2 for isolation), 33 children's cots, and 12 treasure cots.

STAFF.—The nursing staff consists of sister-in-charge, 1 sister, 3 staff nurses, and 10 probationers; the domestic staff of 1 cook, 1 laundry maid, and 8 maids; and the outdoor staff of 1 gardener-boilerman, 1 assistant gardener-boilerman, and 1 apprentice gardener.

During the year the staff lost 39 working days through illness.

BUILDINGS AND GROUNDS.—No work beyond ordinary maintenance was carried out during the year.

ADMISSIONS AND DISCHARGES.—

	Infants (Under 1 year).	Children (1-5 years).	Adults.	Total.
In residence, 31st Dec., 1935, ...	21	12	8	41
Admitted during 1936, ...	198	200	195	593
Discharged during 1936, ...	176	204	195	575
Died during 1936, ...	25	—	—	25
In residence, 31st Dec., 1936, ...	18	8	8	34

NUMBER OF BEDS OCCUPIED.—

Average during the year, ...	...	...	...	37
Highest (24/6/36), ...	...	...	...	50
Lowest (23/8/36), ...	...	...	...	14
AVERAGE DURATION OF STAY, ...	...	...	...	22.8 days.

OUT-PATIENTS.—

Total number of persons seen O.P. Department, ...	25
Total number of attendances at O.P. Department, ...	497

CHILD WELFARE CENTRES AND INSTITUTIONS FROM WHICH
ADMISSIONS WERE ARRANGED.

Airdrie,	23	Strathaven,	6
Baillieston,	25	Tannochside,	3
Bellshill,	38	Uddingston,	30
Bishopbriggs,	16		
Blantyre,	49		385
Cadzow,	6		
Cambuslang,	58	Ear, Nose & Throat Clinic,	122
Chapelhall,	15	Bellshill Hospital, ...	71
Chryston,	27	Motherwell Hospital, ...	9
Lanark,	2	Stonehouse Hospital, ...	1
Larkhall,	26	Western Infirmary, Glasgow,	1
Newarthill,	3	School Service,	1
Newmains,	16	Public Health Dept., ...	3
New Stevenston,	20		
Shotts,	22	Total,	593

CONDITIONS TREATED.—

Adults—

Ante-Natal :

Anaemia and Debility,	41	Normal Primipara, ...	1
Toxaemia of Pregnancy,	9	Phlebitis,	1
Cardiac Disease, ...	4	Gallstones,	1
High Blood Pressure,	4	Threatened Miscarriage,	1
Respiratory Disease,	1	Tuberculous Knee,	1

Additional conditions in above cases :—Kidney Disease, 2 ; Hydramnios, 2 ; Cardiac Disease, 2 ; Positive Wassermann, 1 ; Respiratory, 1 ; Pernicious Vomiting, 1 ; High B.P., 1 ; Diabetes, 1 ; Threatened Abortion, 1 ; Tuberculosis of Breast, 1.

One case was confined in Calderbank and immediately transferred to Bellshill Hospital.

Post-Natal :

Anaemia and Debility,	81	Carcinoma,	1
Post-Abortion, ...	22	Post Operation, ...	1
Cardiac Disease, ...	3	Rheumatism,	1
Varicose Veins, Phlebitis,	2	Sub-involution, ...	1
Albuminuria, ...	2	Axillary Abscess, ...	1
With Infant, ...	2	Tuberculous Knee,	1

Additional conditions in above cases :—Cardiac Disease, 7 ; Gastro-intestinal, 2 ; Fallen Arches, 1 ; Mastitis, 1 ; Skin, 1 ; Axillary Abscess, 1.

Others :

Anaemia and Debility,	5	Paralysis,	1
Varicose Veins, ...	3	Dental,	1
Post Operation, ...	1	Tonsils and Adenoids,	1
High B.P.,	1		

Children—

Ear, Nose and Throat,	121	Gastro-Intestinal, ...	4
Debility,	19	School (Ear, Nose and	
Respiratory,	14	Throat),	4
Skin,	11	Phimosiis,	3
Rickets,	9	Eye,	3
Otorrhoea,	7	Worms,	2
With Mother,	6	Infantile Paralysis,	1

Additional conditions in above cases :—Otorrhoea, 3 ; Rickets, 2 ; Debility, 1 ; Infantile Paralysis, 1 ; Mental Defective, 1 ; Mongolism, 1 ; Eye, 1 ; Adenoids, 1 ; Anaemia, 1 ; Bronchiectasis, 1.

Infants—

With Mother,	63	Adenitis,	3
Marasmus,	27	Birth Injury,	3
Debility,	25	Post Meningitis, ...	1
Gastro-Intestinal, ...	22	Jaundice,	1
Phimosiis,	21	Rickets,	1
Skin,	12	Hernia,	1
Prematurity,	11	Harelip Cleft Palate,	1
Respiratory,	9	Eye,	1

Additional conditions in above cases :—Otorrhoea, 5 ; Enteritis, 3 ; Bronchitis, 3 ; Hernia, 2 ; Debility, 2 ; Broncho-pneumonia, 2 ; Congenital Heart Disease, 2 ; Asthma, 1 ; Empyema, 1 ; Eyes, 1 ; Rickets, 1.

RESULTS.—

Discharged—

	Adults.	Children.	Infants.	Total.
Well,	124	186	156	466
Improved,	24	6	7	37
I.S.Q.,	23	8	8	39
Died,	—	—	25	25

Transferred—

Bellshill,	23	—	—	23
Samaritan,	1	—	—	1
Motherwell,	—	4	3	7
Longriggend,	—	—	1	1
R.H.S.C.,	—	—	1	1

Total,	195	204	201	600
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Went home against advice, ...	25	4	7	36
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All the deaths were in the infants, many of whom were only in for short periods (from several hours upwards). The causes were:—Marasmus, 10; Prematurity, 6; Broncho-pneumonia, 3; Post Meningitis, 2; Gastro-Intestinal, 2; Birth Injury, 1; Congenital Defect of Bile Duct, 1.

During the year 7 patients were transferred to the County Hospital, Motherwell:—4 children (3 scarlet fever and 1 whooping cough), 3 infants (2 empyema and 1 ? meningitis).

EAR, NOSE AND THROAT.—The following conditions were treated:—

Tonsils and Adenoids,	52
Adenoids,	70
Otorrhoea,	1
Ethmoid Operation,	1

NUMBER OF SURGICAL OPERATIONS.—

Under general anaesthesia,	135
Other,	39
Phimosi—	
Circumcised,	5
Stretched,	15
	20

ARTIFICIAL SUNLIGHT TREATMENT.

Indoor Patients—

CHILDREN AND INFANTS.

	Number.	Discharged.			Continuing.	Transferred or Stopped.
		Well.	Improved.	I.S.Q.		
Bronchitis, ...	4	1	2	—	—	1
Asthma, ...	1	—	1	—	—	—
Debility, ...	14	4	5	1	1	3
Marasmus, ...	11	9	1	1	—	—
Enteritis, ...	6	4	1	—	1	—
Eczema, ...	4	2	1	1	—	—
Anaemia, ...	2	1	—	—	1	—
Rickets, ...	9	1	6	1	—	1
Ophthalmia, ...	1	—	1	—	—	—
T.B. Adenitis,	1	—	—	—	—	1

Outdoor Patients—

ADULTS.

Lupus, ...	3	—	—	1	1	1
Psoriasis, ...	1	—	1	—	—	—
T.B. Conditions,	5	—	1	—	1	3

INFANTS AND CHILDREN.

Debility, ...	7	3	2	1	1	—
Rickets, ...	6	—	1	—	3	2
T.B. Adenitis,	3	1	1	1	—	—

COUNTY HOSPITAL, LANARK.

Physician-Superintendent—

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

Sister-in-Charge—Miss KEIR.

ACCOMMODATION.—Remains unchanged, and consists of two blocks of two wards each, one block for mothers with 16 beds, and one block for children with 20 cots.

The waiting list for admission tends to become congested at certain periods of the year, but, taken all over, the demands for admission can be satisfactorily met with the present accommodation.

STAFF.—The staff consists of charge sister, 3 staff nurses, 4 probationers, 1 cook, 1 house tablemaid, 2 ward maids, 1 laundry maid, 1 laundry and kitchen maid, and 1 gardener. There is not sufficient accommodation for all the staff, and the cook, 3 maids, and the gardener live out.

BUILDINGS AND GROUNDS.—The extensions to the kitchen premises begun at the end of 1935, were completed in August, 1936, and provide ample accommodation and modern equipment for cooking, which were badly needed. There is now an ample supply of hot water for all purposes in the administration block, and the former kitchen was converted into a maids' dining-room.

A large bedroom was provided above the new kitchen, but, unfortunately, a small bedroom had to be sacrificed to gain access to the new bedroom. Bedroom accommodation has not, therefore, been increased, but we have now a large airy double windowed bedroom instead of a small one with a skylight and no fireplace.

The discarded bedroom is now utilised as a cloak room for the maids who previously had no such accommodation.

The remainder of the alterations, viz., the heating of the wards with hot water radiators, and the replacing of the old grates in the ward kitchen with triplex grates, is promised at an early date.

The grounds continue to be kept in good general condition, the greater part of which produces vegetables and small fruit for hospital use.

I have to report that a new electric washing machine has been installed which is proving a great boon in time and labour saving.

ADMISSIONS AND DISCHARGES.

In Residence, 1/1/36.	Admitted during Year.	Discharged during Year.	Died during year.	In Residence 31/12/36.
17	505	510	—	12
Avondale,	2	Hamilton,	29	
Blantyre,	62	Lanark,	5	
Bothwell,	175	Lesmahagow,	12	
Cadder,	7	New Monkland,	10	
Cambuslang,	64	Old Monkland,	6	
Cambusnethan,	30	Rutherglen,	8	
Carlisle,	8	Shotts,	38	
Carnwath,	1	Symington,	2	
Dalserf,	26	Burgh of Lanark,	15	
East Kilbride,	6			
Glasgow,	4	Total,	510	

AGES OF PATIENTS.—The ages of patients discharged were as follows :—

Children—

Months.		Years.		Total.
—6	6-12	1-2	2-5	
129	36	30	25	220

Mothers—

—20	—25	—30	—35	—40	Over 40.	Total.
14	68	63	73	47	25	290

NATURE OF ADMISSIONS.—The conditions which necessitated admission were :—

Children—

Admitted with mother,	141	Feeding errors,	...	6
Mother in Hospital, ...	7	Skin diseases, ...	...	8
Malnutrition, ...	10	Adenitis, ...	...	2
Rickets, ...	14	Intestinal Worms, ...	...	1
Gastro Intestinal, ...	6	Congenital Heart, ...	...	2
Respiratory disease, ...	14	Others, ...	...	4
Broncho-pneumonia, ...	1			
Cretinism, ...	1	Total, ...		220
Prematurity, ...	3			

Mothers—

Post-Natal.				Ante-Natal.			
Debility, ...	...	158		Debility, ...	...	10	
Post Abortion, ...	...	11		Albuminuria, ...	...	2	
Respiratory, ...	...	6					12
Cardiac, ...	...	4					
Mastitis, ...	...	2					
Varicose Veins, ...	...	3					
Leucorrhoea, ...	...	1					
Albuminuria, ...	...	2					
Gastro Intestinal, ...	...	1					
Dental, ...	...	11					
Others, ...	...	15					
		214					

Gynaecological.				Others.			
Disordered Menses,	...	7		Debility,	...	...	23
Ovaritis,	...	2		Gastro Intestinal,	...	...	3
Subinvolution,	...	2		Respiratory,	...	...	2
				Cardiac,	...	...	12
		11		Dental, ...	...	...	6
				Others, ...	...	...	7
							53

Total, 290.

REVISED DIAGNOSES.—Six cases admitted as post-natal debility proved to be :—Grave's disease, 2 ; hemiplegia, 1 ; pulmonary tuberculosis, 1 ; cardiac disease, 1 ; and rheumatoid arthritis, 1.

One case admitted as amenorrhoea aborted in the hospital and was transferred to Bellshill Hospital.

It will be noted that the majority of mothers admitted were post-natal, *i.e.*, within a year of their confinements, and that they invariably had their babies with them.

These patients suffered from debility, and invariably showed some degree of anaemia and subnutrition, the common complaints being headache, giddiness, and poor appetite.

Investigation shows that the type of diet common to most patients is at fault. They drink large quantities of tea, all types of meat and fish appeared to be fried, and the amounts of carbohydrates seem to be excessive, especially bread and potatoes.

After a few days' residence their appetites rapidly improve, and this is borne out by the almost invariably marked increase in weight and general well-being after 14 days' residence.

The main lines of treatment were rest, regular and varied diet, and the administration of iron, arsenic and strychnine hypodermically or by mouth, with as much time as possible spent in the open air.

TEETH.—Particular attention was paid to dental caries, as the great majority of these patients exhibit either pyorrhoea or dental caries or both with accompanying disturbance of digestion. During the year 290 mothers were admitted, and of these, 171 showed oral

sepsis in one form or other. Fifty patients had sound teeth and 8 of these perfect dentures. The following table gives a resume of conditions found :—

	Slight.	Moderate.	Severe.	Total.
Caries,	55	37	15	107
Pyorrhoea,	18	8	13	39
Both,	1	10	14	25
Good Teeth,	50			
No Teeth,	24			
Artificial Dentures,	36			
Not Noted,	9			

Patients submit readily to dental treatment when they are allowed a few days in hospital to recover from the effects.

Sixty-five patients received dental treatment from qualified dentists and the more severe cases were given gas anaesthesia, which also proves a great inducement to patients, who do not submit readily to treatment under local anaesthesia.

From experience, I can state that patients who have dental treatment under gas anaesthesia make a decidedly more rapid recovery from the effects than those who are given local anaesthetics. The sockets clean up in a day or two and there is little or no swelling.

This form of general convalescent treatment is of infinite value, marked by the pronounced increase in weight and general condition of the patients.

RESULTS OF TREATMENT.—326 patients were discharged well ; 106 much improved ; 73 I.S.Q. ; and 1 worse. Two were transferred to County Hospital, Motherwell ; 1 to Bellshill Hospital ; and 1 was sent home with suspected measles.

There were no deaths in the hospital during the year.

INFECTIOUS DISEASE.—A child who was admitted on 4/2/36 developed a morbilliform rash on 12/2/36 and was sent home by ambulance. All contacts when discharged were followed up by the Nurse Health Visitors in the various districts, but no other cases developed, and no further cases occurred in the hospital.

POOR LAW INSTITUTIONS.

REPORT ON OMOA HOSPITAL, 1936.

Accommodation remains unchanged, consisting of 8 Male Wards and 5 Female Wards.

Staff.—Nursing Staff consists of Matron, 7 Staff Nurses, and 6 Probationers. Staff is assisted by Ward Maids.

	Males.	Females.	Boys.	Girls.	Total.
Number of Patients in Hospital at 31st December, 1935, ...	56	31	4	3	94
Number of Patients admitted during year ending 31st December, 1936, ...	159	72	17	14	262
	215	103	21	17	356
Number of Patients discharged during year ending 31st December, 1936, ...	158	75	19	13	265
Remaining in Hospital at 31st December, 1936, ...	57	28	2	4	91

Largest number in one day—104 on April 8th, 1936.

Smallest number in one day—77 on October 13th, 14th and 15th.

There were 53 deaths—29 males and 24 females.

Eight cases were certified insane and removed to Hartwood Asylum—5 males and 3 females. There are 7 mental defectives, 2 males and 5 females. These have given no trouble, and some of them are usefully employed. The type of case during the year has been, as usual, of a chronic nature. Many of them are incontinent and helpless and consequently require careful nursing. A number of cases are received from the General Hospitals, such as inoperable cases. These hospitals, naturally, with their large waiting list, cannot keep cases which require many months of nursing and are in a hopeless condition. All types of cases are met with:—Pulmonary, cardiac, malignant and skin, etc. A considerable number of gastric cases are received. These require special lines of treatment such as dietary, and of course, require more

expenditure and treatment. It is very noticeable in Omoa Hospital that many more cases are received from the surrounding districts than formerly, pointing to the fact that the old stigma of "Poor House" is slowly but gradually being wiped out.

Naturally these patients demand a higher grade of dietary and treatment than the old "Poor House Patient." About 15 to 20 of the cases in Omoa Hospital are under the National Health Insurance Act.

Encephalitis Lethargica Wards (After Effects).—There are two wards, male and female—7 males and 7 females. These cases are helpless and require constant nursing attention. Some of them cannot feed themselves. In these wards there were two deaths during the year.

Epileptics.—There are 9 epileptics, 6 males and 3 females. I have in previous Medical Reports expressed the view that these patients should not be in a General Hospital. During a seizure they naturally perturb the other patients, and before and after a seizure, they are very often abnormal in their mental condition. They may become a danger to others.

"Borderland" Cases.—These cases are sent in probably to avoid stigma of Asylum. They give a great deal of trouble, and a number have had to be removed to Hartwood Asylum. A Mental Observation Ward outside an Asylum might prove very useful indeed.

Nursery.—There are at present 30 in the Nursery, 22 boys and 8 girls. A number of cases during the year were removed to Dunavon House, and some were boarded out, but, in spite of this, the accommodation is taxed. There have been cases of diphtheria, scarlet fever. These were removed to the County Fever Hospital at Motherwell. There have also been cases of measles, chicken-pox and pneumonia. Most of these cases were nursed in Omoa Hospital. The Nursery is in charge of a qualified staff nurse. The older children attend the village school. The children are healthy and happy looking.

Infirm Wards.—There are two, male and female. These old people are very happy and appear to enjoy the privileges they receive in these wards. Many have expressed to me their gratitude.

Venereal Cases.—These are sent to the County Hospital, Motherwell.

Maternity Cases.—These are kept until the approaching confinement, when they are sent to Bellshill Maternity Hospital. When recovered, they return to this Hospital if they still continue destitute. Ante-natal treatment is carefully carried out.

Eye Cases.—These are sent to the Eye Infirmary in Glasgow when necessary.

Skin Diseases and Offensive Cases.—Arrangements have now been made to send these cases to Motherwell County Hospital.

Cancer Cases.—Superficial cases, such as, rodent ulcer and affection of the tongue are sent to the Radium Centre at the Glasgow Western Infirmary. Some of these cases have done very well. The other cases of cancer received in Omoa Hospital are usually incurable cases from General Hospitals, such as, colostomy and supra pubic systotomy.

Surgical Cases.—These are sent to the Glasgow General Hospitals.

A dentist visits the Hospital when required.

X-Ray Cases.—These are sent to Motherwell County Hospital or to the General Hospitals in Glasgow.

Tubercular cases are notified to the County, and when a bed is vacant are sent to the Sanatoria.

The nursing arrangements are satisfactory, and the nursing staff at present is adequate. Comfortable accommodation is provided for the nurses. There is a sick ward.

The general wards are well kept, clean, bright and well equipped with medical appliances. The bathing of the sick is carefully attended to. Ventilation and heating of the wards is satisfactory.

House.—The wards are clean and carefully looked after. Any inmate can consult the Medical Officer on his daily visit. Cases requiring dietary are given a special diet. Classifications as regards work are submitted to the Medical Officer.

GEO. HUGH LOGAN, M.B., Ch.B.,
Medical Officer.

**REPORT ON CROSSLAW HOME, LANARK,
For the Year 1936.**

I beg to submit my report on the above Home for the year 1936.

The accommodation has proved quite satisfactory for all cases brought in.

All patients are medically examined as they are admitted, and it depends on the type of illness whether they are examined every day or not. Severe cases, such as all fevered diseases, are seen every day. Ordinary cases are seen at least twice weekly.

Diet is given according to the condition of the patient, and is ample, appetising, and well cooked, of good quality and seems to be enjoyed by the inmates. At any rate, there are no complaints.

Nursing arrangements are very satisfactory, there being a Matron and an assistant, both well qualified nurses, the latter being a certificated midwife. They have the help of ward maids and others who seem to take a great interest in their work.

The accommodation for the nursing staff is, in the meantime, quite satisfactory.

Medicines and medical appliances are sufficient for all practical purposes and the equipment of the sick wards is added to as circumstances require.

There is no water in the wards, but in adjacent compartments there is abundance of both hot and cold.

In these compartments there are baths and hand-basins, so that all sick on their arrival have a warm bath if they are in a fit condition for same. If not, they are hand-sponged.

All other patients are bathed once a fortnight or oftener if necessary.

The wards and outside lobbies are heated by means of hot water pipes in the cold season, so that all seem to be cosy and comfortable.

Ventilation of the wards is satisfactorily provided by means of side ventilators and windows, which are slightly raised from the bottom and wood fitted in to prevent draughts.

All sanitary conditions are in excellent order and the wards are well kept and clean.

There is a special hut in the grounds for any cases of skin disease that might come in, such as itch, etc.

Tubercular cases are reported to the Medical Officer of Health who has them removed to the Sanatorium. Any infectious disease, such as diphtheria, scarlet fever, etc., is reported, and then sent to the various fever hospitals. The same applies to any venereal cases which are sent to the various clinics, and any cancer cases are sent to the Glasgow Cancer Hospital.

Obstetric cases are sent to Bellshill Maternity Hospital.

Cases requiring major operations are sent to Glasgow, but any small operations are either done in our local hospitals or in the Home.

Children, as a rule, are boarded out.

THOS. W. BANKS, M.B., C.M.,
Medical Officer.

Crosslaw Home, Lanark.

VETERINARY INSPECTION OF DAIRY HERDS.

To enable all the dairy herds in the County being inspected three times in each year, two additional temporary Veterinary Surgeons are appointed from 1st November to 30th April.

The number of animals detected suffering from tuberculosis of udder amounted to 95, compared with 129 in the previous year.

Under the Milk and Dairies (Scotland) Act, 1914, it is an offence to sell milk from a cow suffering from any disease liable to infect or contaminate the milk. The number of animals giving milk found to contain infectious organisms other than tubercle, amounted to 193, compared with 199 in the previous year.

The following tabular statement shows the work carried out during the year :—

Herds registered,	...	...	...	...	1,312
Herds inspected, ... *	...	...	...	...	4,189
Cows examined, ...	...	...	...	...	97,190
<i>Cows with Abnormal Condition of Udder—</i>					
Tuberculosis,	...	...	...	...	95
Atrophy, ...	...	...	...	...	4,659
Mammitis,	...	...	...	...	602
Induration, non-tuberculous,	...	...	...	...	1,255
Eruption on teats,	...	...	...	...	37
<i>Samples of Milk—</i>					
Number taken, ...	...	...	...	...	1,494
Number found to contain tubercle bacilli (including group and duplicate samples), ...	...	...	...	...	110*
Number found to contain other infectious organisms (including group samples), ...	...	...	...	...	200†
Number negative, ...	...	...	...	...	1,183

One sample insufficient for examination.

* Taken from 95 cows.

† Taken from 193 cows.

Further details regarding the work carried out will be found in the Annual Report of the County Veterinary Inspector which follows.

REPORT OF THE COUNTY VETERINARY INSPECTOR.

To—

The Department of Health for Scotland.

The County Council of the County of Lanark.

The Town Council of the Burgh of Biggar.

The Town Council of the Burgh of Lanark.

GENTLEMEN,

I have the honour to submit herewith the Eleventh Annual Report of the work done by the Veterinary Department under the Milk and Dairies (Scotland) Act, 1914, for the year 1936. As usual, this report is compiled in accordance with instructions issued by the Department of Health for Scotland.

ANY MATTER OF GENERAL INTEREST.

It is gratifying to note that, during 1936, there has been an increase in the liquid consumption of raw milk. This fact is interesting when it is realised that the consumption of milk per head of the population in Great Britain is very low compared with other countries. If this increase can be further augmented by the various schemes operated by the Milk Marketing Board, there will not only be a favourable reflection on the health of the nation, but it will give some encouragement to the milk industry in the shape of better financial returns. These schemes should also serve a useful purpose in educating the general public to the fact that raw milk, consumed as such, is a food and not merely a liquid for culinary purposes. In connection with this increased consumption, it is important to note that the quantity of tubercle-free milk available has now reached an appreciable amount and the gallonage of such milk produced is greater than ever before.

During the year a revised Tuberculosis (Attested Herds) Scheme (Scotland) was introduced with a view to making the scheme more attractive to farmers. Various important changes were made, three of which call for special attention. Firstly, it is now permissible for the nominated Veterinary Surgeon of the Local Authority under the Milk (Special Designations) Order, with the approval of the Department of Agriculture for Scotland, to apply the tuberculin test in Graded Attested Herds after the Certificate of Attestation has been granted, and so long as no reactors are found. If reactors are detected, the herd is then tested by the Veterinary Officers of the Department until such time as it again becomes attested. Secondly, the owner of

an Attested Herd is now entitled to a bonus on all milk produced, irrespective of whether it is sold as graded or not. Thirdly, the scheme makes provision for what are known as Supervised Herds, *i.e.*, herds with less than ten per cent. reactors to the tuberculin test. The owners of such herds have to comply with certain requirements, and, in return, the Department agrees to defray the cost of applying the tuberculin test.

No doubt the present scheme is more attractive than the previous one from the farmer's point of view, and, considering the number of Graded Herds in Lanarkshire eligible to participate in the scheme, it is surprising that a larger number of owners do not avail themselves of the financial benefit to be derived therefrom. It is unfortunate, however, that, even in the revised scheme, it has not been made a condition of attestation that the premises should conform to the local dairy bye-laws. Such a provision would have materially assisted Local Authorities in the good work which they are doing under these bye-laws. As it is, the scheme may even tend to hinder this work in non-graded Attested Herds where premises do not conform to the regulations. The fact that a herd is attested means that it is free of tuberculosis, and, if a bonus is paid, that the milk is of a satisfactory standard both chemically and bacteriologically. Consequently, if an owner is producing milk of such a quality in premises which do not comply with the dairy bye-laws, he may have reasonable grounds for thinking that certain alterations to his premises are unnecessary, a state of affairs which might lead to friction between him and the Local Authority. In addition, if such a provision had been made, there would have been no great difficulty in Attested Herds becoming graded, in which case the milk from such herds would reach the market under a special designation. At present, it is presumed that the milk from non-graded Attested Herds is mixed with the ordinary supply at creameries, etc., a fact which rather nullifies the avowed intention of the scheme.

MILK (SPECIAL DESIGNATIONS) ORDER (SCOTLAND), 1936.

In October of the year under review, the Milk (Special Designations) Order (Scotland), 1936, came into operation. Apart from the fact that certain provisions of the new Order allow it to dovetail into the requirements of the Tuberculosis (Attested Herds) Scheme (Scotland), various important changes were introduced. Certain of these changes should go a long way towards achieving more uniformity amongst the various Local Authorities under the Order, and should to a certain extent

prevent farmers who wish to establish Graded Herds being penalised in one county more than another.

One of the provisions of the new Order, namely, that the milk as soon as it is produced should be cooled to 50° F., has proved rather a stumbling block, not only to present holders of licences, but also to intending applicants. As it is impossible, except under exceptional conditions, to cool milk during the summer months to this temperature with the ordinary water supply, it will be necessary to do so by other means. To achieve this end will mean the installation of expensive cooling plant. In view of this fact and that there is still an inadequate financial return for graded milk, it is doubtful if some of the present licencees will continue to take out licences under the Order. In such an event, the result will be that their milk will be mixed with the ordinary supply, and thus be lost to the consuming public as a tubercle-free commodity. Furthermore, owners who are at present taking steps to free their herds of tuberculosis hesitate to proceed further and apply for a graded licence knowing the expense which they will require to incur in the installation of these cooling plants. Such a requirement may, for some reasons, chiefly commercial, be considered necessary, but, at the moment, it would appear premature and hardly necessary from a public health point of view, which latter fact is the chief concern of the Order. In addition, there never has been any difficulty in Lanarkshire in consistently producing milk of the required bacterial standard without the use of expensive cooling plant.

An entirely new designation has been introduced, namely, Standard Milk. This is more or less a substitute for Grade A Milk, and is produced from herds which are not tuberculin tested, but only examined clinically. The owner may submit such a herd to the tuberculin test and retain reactors, but no known reactor can be introduced. It is difficult to understand why such a provision has been made, since an owner may have in his herd one hundred per cent. reacting cows, many of which may be affected with tuberculosis to a greater extent than the known reactor which he may wish to add. Further, although he must not buy a known reacting cow, yet it is permissible for him to purchase any animal in the open market, and which will almost certainly be or shortly become a reactor.

The immediate requirements of the Order and also developments which may be envisaged under it will undoubtedly entail an increased amount of work for the Veterinary Department.

MILKING MACHINES.

In the last annual report attention was drawn to the increased number of milking machines which had been installed lately in the county. Owing to the difficulty which farmers are having in finding efficient labour there has been a further increase during 1936. If it continues, this development should have a beneficial effect on the milk supply, as these machines, if they are to function properly, require the installation of more efficient means of sterilisation than is usually found on the ordinary farm, and, incidentally, this is available for other dairy utensils.

CONGENITAL TUBERCULOSIS.

Twenty-one reports were received during the year that calves had been slaughtered and found to be affected with congenital tuberculosis, sixteen in the county, one in the City of Edinburgh, and four in the Burgh of Wishaw. In accordance with the usual practice, the mothers of these calves were traced and examined where possible, sixteen being located within the County. Of these, twelve were dealt with under the Tuberculosis Order. The remaining four are still under observation. Much useful work can be done in this direction, as these cows, which usually prove to be affected with advanced tuberculosis and often appear in good health, can be dealt with at an early date. The owner is usually ignorant of the fact that there is anything amiss with the cow, although the size and weight of the calf have often attracted his attention.

ADMINISTRATIVE DIFFICULTIES.

During the year no administrative difficulties were met with under the Milk and Dairies (Scotland) Act.

1. CONDITION AND CLEANLINESS OF COWS.

The general condition of the dairy cows in the County continues to be satisfactory and calls for no comment. The standard of cleanliness remains fairly high, and the practice of clipping the udder and flanks is now adopted by many dairymen as a routine procedure. There are still a few places, however, where the cows are not kept as clean as they might be, either through faulty construction in the byre or slovenliness on the part of the owner, and which call for constant supervision.

(a) NATURE OF THE FODDER AND DIET AS AFFECTING THE
QUALITY OF THE MILK.

In no case during the year was there any reason to believe that the quality or nature of the feeding stuffs affected the quality of the milk.

(b) NUMBER OF DISEASED COWS FOUND—EXCLUDING TUBERCULOSIS.

In the course of herd examination, various diseases affecting dairy cows were encountered, but no attempt was made to classify and enumerate these, as such a procedure would occupy too much time. If, however, it was considered that there was a danger to the milk supply as a result of any disease, the produce of the affected animal was excluded from sale for human consumption.

TABLE I.

STATEMENT SHOWING THE NUMBER OF COWS FOUND TO HAVE
ABNORMAL CONDITIONS OF THE UDDER.

Tuberculosis,	...	...	...	...	95
Atrophy,	...	...	...	...	4,659
Mammitis,	...	...	...	...	602
Induration, Non-Tuberculous,	...	...	...	...	1,255
Eruptions on Teats,	...	...	...	...	37

(c) DISPOSAL OF MILK FROM DISEASED COWS.

Although a certain amount of supervision was exercised, reliance still continues chiefly to be placed on an owner's sense of honour not to use for human consumption the milk of a cow certified to be suffering from a disease liable to infect or contaminate her produce. Even so, there is no reason to believe that such milk was at any time exposed for sale. In fact, the supervision now exercised at creameries and elsewhere makes it in the owner's own interests not to mix infected milk with the ordinary supply.

2. INSPECTION OF CATTLE.

Herds examined,	...	4,189	Average per examination,	1,396
Cows examined,	...	97,190	Average per examination,	32,397

Annual frequency of examination.

Registered dairies,	...	...	...	3
Exempted premises,	...	...	...	1

The total number of unregistered premises in the County is unknown.

In order to complete the three inspections, it was necessary, as in former years, to appoint two temporary assistants during the winter months, and, in the light of the experience gained in this procedure, one wonders if it is the most satisfactory arrangement. At present the permanent Veterinary Staff carries out summer inspections from time to time as the opportunity arises, but as the number of herds licensed under the Milk (Special Designations) Order increases, the opportunity of carrying out these inspections decreases, with the result that most of the examinations are carried out in the winter months. This means that the bulk of the ordinary dairy herds are not examined between the months of May and October inclusive. During this period the cows are at grass, and to conduct any form of routine herd inspection then is difficult for many reasons. Nevertheless, it must be admitted that three examinations made at intervals spread over the whole year would probably give better results than if they were nearly all made during the winter months. It is not suggested that, by so doing, there would be any increase in the number of cases detected under the Tuberculosis Order, but it is felt that many cases would be dealt with at an earlier date, thus reducing, to some extent, the risk of infection in the milk. Experience in the past has shown that the inspections carried out during November and December are the most fruitful of cases amenable to the Tuberculosis Order, while the number of such cases detected during the first four months of the year is considerably less. This means that during November and December we reap the crop which has matured during the summer months when the cows were not examined. To enable the inspections to be carried out during the summer months would, apart from the difficulty, necessitate the appointment of additional permanent assistance, and it is very doubtful if one permanent man could, throughout the year, cover as much ground as two temporary assistants during the winter months. On the other hand, it must be admitted that the value of the work done by a permanent Veterinary Surgeon with experience would be very much greater than that of the available temporary assistants who are appointed yearly.

3. BOVINE TUBERCULOSIS.

In the report for 1935 attention was drawn to the fact that, during the year, a larger number of farmers than usual had submitted their herds to the tuberculin test for the first time. It is interesting

to note that during 1936 there has been a continuance of this practice. Unfortunately, in many cases, the number of reactors disclosed by such tests was such that no further action could be taken short of disposing of the entire herd. In other cases the state of affairs revealed was such as to cause the owners to attempt some means of eradication, and, while the methods adopted are in some instances rather crude, there must be some reduction in the incidence of tuberculosis in the County. There is also an increasing number of farmers breeding their own stock, either wholly or in part, and this must also in time have a favourable influence on the prevalence of the disease.

(a) NUMBER OF COWS FOUND TUBERCULOUS ON CLINICAL
EXAMINATION OF HERDS.

Table III shows the number of cases dealt with under the Tuberculosis Order during the year, and the classification in accordance with that Order of the various forms of the disease. The table also shows the number detected during routine herd examination. The total number of cases dealt with shows a reduction of 120 as compared with 1935. Likewise, the number of cases reported by private Veterinary Surgeons shows a reduction of 50 per cent. Unfortunately, it cannot be assumed, in view of this reduction, that there has been a proportional decrease in the amount of tuberculosis affecting dairy cows in the County. These figures are bound to vary from year to year, and the reduction recorded for 1936 cannot as yet be considered to be due to any specific cause.

(b) NUMBER OF COWS FOUND TUBERCULOUS AFTER
TUBERCULIN TEST.

It was only necessary to apply the tuberculin test in nine cases to assist in diagnosis whilst investigating cases under the Tuberculosis Order. This figure shows a very considerable reduction compared with 1934 and 1935, in which years the test was resorted to in 63 and 40 cases respectively.

(c) TOTAL NUMBER OF COWS TO WHICH THE TUBERCULIN
TEST WAS APPLIED UNDER SECTION 22 OF THE MILK
AND DAIRIES (SCOTLAND) ACT, 1914.

None.

(d) NUMBER OF DAIRIES HOLDING LICENCES IN RESPECT OF
TUBERCLE-FREE HERDS.

CERTIFIED.

Name and Address.	No. of years licensed.	Average number of Herd.	Average number of Cows.	Estimated number of gallons of milk produced per annum.
J. G. Gilchrist, Auchtygemmell, Lesmahagow.	11	41	35	25,915 gallons.
Wm. Fleming, Auldton, Dalserf.	10	45	43	35,770 „
James Hodge, Brownhill, Carnwath.	13½	39	23	16,516 „
Donald Ian Brown, Bushelhead, Carluke.	7	24	19	15,148 „
Thos. Pate, Jr., South Draffan, Kirkmuirhill.	8	63	49	40,637 „
Corporation of Glasgow, Gartloch, Gartcosh.	8	163	90	69,989 „
Robert Lohoar, Greenlees, Cambuslang.	4	83	62	40,637 „
County Council of Lanark, Hairmyres, East Kilbride.	14	52	36	21,900 „
Lanarkshire Mental Hospitals Joint Committee, Home Farm, Hartwood.	8	99	75	64,240 „
J. & T. Blackwood, Hill of Kilncadzow, Carluke.	10	62	38	23,360 „
Robert Lohoar, Holmhill, Cambuslang.	9 months	24	24	16,425 „
John Hamilton, Low Mains, East Kilbride.	10	38	33	22,630 „
Thos. Fleming, Millburn, Larkhall.	4	57	45	28,470 „
Stewart Findlay, Springhill, Baillieston.	4	69	37	26,098 „
John Russell, Walston Mansion, Dunsyre.	12½	81	42	35,953 „
John G. Lohoar, Wellshot, Cambuslang.	5½	55	33	32,120 „
A. W. Montgomerie, Westburn, Cambuslang.	10	42	25	26,189 „
Thos. Renwick, Westertown, Strathaven.	2	—	23	11,863 „
				<u>553,860 „</u>

TUBERCULIN TESTED.

Name and Address.	No. of years licensed.	Average number of Herd.	Average number of Cows.	Estimated number of gallons of milk produced per annum.
James Elder, Ampherlaw, Carnwath.	2½	37	34	19,710 gallons.
John Struthers, Anston, Dunsyre.	11	—	33	32,850 „
Matthew Bowie, Easter Balmuildy, Maryhill, Glasgow.	9 months	38	32	23,603 „
Andrew Lang, Baitlaw, Biggar.	2 months	48	34	25,550 „
Hugh C. Brown, Birkwood Mains, Lesmahagow.	11	40	27	18,615 „
Lindsay Steele, Blackhill, Crossford.	11	49	36	18,798 „
John Fairie, Low Blackwoodyards, Kirkmuirhill.	8	51	44	32,850 „
Corporation of Glasgow, Brackenhirst, by Airdrie.	1½	112	96	67,525 „
Scottish Land Development Company, Brancumhall, East Kilbride.	6 months	45	45	32,850 „
Alexander Wilson, South Carnduff, Strathaven.	9½	47	31	25,002 „
Thos. Cadzow, Mid Coldstream, Carluke.	2	23	15	10,950 „
J. A. & W. Brown, Cormiston Towers, Biggar.	14	75	40	23,725 „
John Cadzow, Craighead, Carluke.	10	48	30	26,888 „
John Simpson & Sons, Crofthead, Bishopbriggs.	2	28	16	13,323 „
John Howatson, Dalzell, Motherwell.	14	104	47	31,025 „
John Bannatyne, Drumalbin, Thankerton.	5	54	48	29,808 „
Frank Lambie, Drumbuie, East Kilbride.	2	—	32	21,718 „
A. & J. Gilchrist, Low Drumclog, Strathaven.	6½	55	27	19,345 „
Wm. Steel, Dumbraxhill, Lesmahagow.	2½	—	32	22,995 „
R. & T. Scott, Eastertown, Douglas Water.	6½	46	30	24,090 „
S. A. Ballantyne, Eastwood, Lesmahagow.	8	—	47	39,298 „
Robert Reid, Greathill, Strathaven.	2	44	32	28,653 „
A. H. Stobo, South Garngour, Lesmahagow.	1	58	43	33,033 „

TUBERCULIN TESTED.

Name and Address.	No. of years licensed.	Average number of Herd.	Average number of Cows.	Estimated number of gallons of milk produced per annum.
Jas. Young & Sons, Greenfield, Strathaven.	4 months	33	25	23,725 gallons.
Walter Adamson, Harleyholm, Thankerton.	10½	51	36	29,200 „
J. & H. Gibson, Hazeldean, Stonehouse.	2	—	31	20,075 „
John Speir, Ltd., Heatheryknowe, Bargeddie.	7	137	94	56,818 „
Thos. Steele, Over Kypeside, Kirkmuirhill.	1½	47	35	20,440 „
Wm. Meikle, Kypewaterhead, Kirkmuirhill.	3	—	26	19,345 „
James Scott, Lawriesmuir, Lesmahagow.	6	—	36	19,893 „
Gavin Cullen, Leadloch, Fauldhouse.	5	44	21	14,965 „
T. B. M'Gregor, Lesserlinn, Lanark.	13½	—	40	25,733 „
R. & W. Wallace, Linnhead, Lanark.	11	48	31	24,820 „
Mrs. Helen Wilson, Lambhill, Strathaven.	4 months	—	28	20,075 „
Hugh Barr, Muirfoot, Carstairs.	5	—	50	31,573 „
Thos. Scott, Netherhall, Lanark.	7	38	28	23,908 „
The Earl of Home, Newmains, Douglas.	11	24	16	10,403 „
Archd. Weir, Netherfield, Coalburn.	9 months	20	16	13,140 „
James Kedar, Netherfield-dyke, Strathaven.	11 months	55	40	28,470 „
R. J. Gilliland, Overhouses, Darvel.	1½	—	14	14,600 „
Wm. Lindsay, Robiesland, Lanark.	1½	61	41	25,185 „
Francis Lambie, Roundhill, Strathaven.	1½	44	36	22,265 „
John Kirkwood, Scorrieholm, Lesmahagow.	13	—	29	20,075 „

TUBERCULIN TESTED.

Name and Address.	No. of years licensed.	Average number of Herd.	Average number of Cows.	Estimated number of gallons of milk produced per annum.
Thos. C. Stewart, Southfield, Blackwood.	11	—	48	39,968 gallons.
Mrs. Jessie Murray, Stramolloch, Chapelton.	13½	20	18	13,140 „
Andrew Murdoch, Teaths, Lanark.	14	42	33	23,908 „
Jas. Neilson, Upper Throughburn, Lanark.	1¼	43	29	19,710 „
John Strachan, Udstonhead, Strathaven.	10½	68	49	30,843 „
James Young, Easter Whitecastle, Biggar.	4½	55	34	23,360 „
James Barr, Whiteshaw, Carluke.	11	60	43	32,120 „
T. A. Ballantyne, Woods, Auchenheath.	11	—	24	18,615 „
George Elder, Wester Yardhouse, Carnwath.	5	—	21	14,235 „
Hugh Russell, Low Whiteside, Lesmahagow.	1¼	24	13	9,033 „
				<hr/> 1,311,844 „ <hr/>

At 31st December, 1936, there were 71 herds licensed to produce either Certified or Tuberculin Tested Milk in the County. This figure shows an increase of 9 compared with 1935, and while it is gratifying to record any increase in this direction, it is feared that the progress made in Lanarkshire is slow compared with some other counties. Of these 71 herds, 35 were eligible for a yearly test and 20 for a six-monthly test in terms of the Order. The remaining 16 were granted certificates of attestation, and were tested at the required intervals by the Department of Agriculture for Scotland. As a result of all tests, 40 reactors were disclosed, this being a reduction of 35 compared with last year.

In connection with these herds, the usual clinical examinations were carried out and in one case the findings were of particular interest.

A cow in this herd had suffered from an attack of streptococcal mastitis in one quarter two years ago, the clinical findings being confirmed by a microscopical examination of the product at that time. In May, 1936, a further sample was taken from the affected quarter, which still showed considerable irregular induration. The sample in this instance revealed the presence of acid-alcohol-fast organisms. In view of this finding, the tuberculin test was applied to the cow, the result being negative, as were all other tests between May, 1936, and the date of taking the streptococcal sample. Under the circumstances, the owner decided to slaughter the animal, and a careful post-mortem examination failed to reveal the presence of any lesions of tuberculosis in the carcase or organs. Likewise, a histological examination of part of the udder did not show any tuberculous lesions. A biological test of the product of the affected quarter was also negative. In the report for 1935, attention was drawn to the fact that acid-alcohol-fast organisms which had been found in a few sputa proved later not to be tubercle bacilli, and in view of the more or less conclusive findings recorded above, it is interesting to note that similar organisms may also be present in milk drawn straight into a sterile bottle.

(e) NUMBER OF ANY OTHER DAIRIES KNOWN TO HAVE
TUBERCLE-FREE HERDS.

It is known that there are some tubercle-free herds in the County other than those licensed under the Milk (Special Designations) Order, but the exact number is unknown. Two such herds are officially tubercle-free in that they are attested under the Tuberculosis (Attested Herds) Scheme (Scotland).

While farmers are becoming increasingly alive to the dangers of tuberculosis amongst dairy cows, and a number are taking steps to free their herds of this disease, many will require to alter their method of dairying before much progress can be made. Because of proximity to markets, lack of grazing and accommodation, etc., a large percentage of the dairymen in the County is wholly or partly dependent on what are known as "flying herds," and any attempt to maintain such herds tubercle-free is impossible or too expensive for all practical purposes. Further, the bonus offered by the Milk Marketing Board for level production has a tendency to encourage this method of farming.

4. MISCELLANEOUS.

(a) LIST OF DAIRIES HOLDING LICENCES FOR THE PRODUCTION OF STANDARD MILK.

Name and Address.	Average number of Cows.	Estimated number of gallons of milk produced per annum.
Archd. Affleck, Barnhills, Douglas Water.	24	14,600 gallons.
John Fleming, Bruntland Dairy, Wishaw.	32	18,980 „
James Barrie, Mossplatt, Carstairs.	30	17,885 „
		<hr/> 51,465 „ <hr/>

(b) NOTES ON ANY SAMPLES TAKEN FOR EXAMINATION IN TERMS OF SECTION 21 OF THE MILK AND DAIRIES (SCOTLAND) ACT, 1914.

TABLE II.

Number of samples taken,	1,494
Number found to contain tubercle bacilli (including group and duplicate samples),	110*
Number found to contain other infectious organisms (including group and dupli- cate samples),	200†
Number negative,	1,183
One sample insufficient for examination.	

* Taken from 95 cows.

† Taken from 193 cows.

During the year, 35 notifications were received that bulk samples of milk had proved biologically to contain tubercle bacilli. This figure represents 32 separate farms, and is more than double the number for 1935. The sources of information were as follows :—

City of Glasgow,	16
City of Edinburgh,	3
County Medical Officer of Health, ...	16

In consequence of these notifications, visits were made to the respective farms and the herds examined. Unfortunately, as a result of these examinations, it was only possible to detect 15 cows amenable to the Tuberculosis Order, our findings on 19 farms being entirely negative. There are many good reasons to account for a careful examination of a herd failing to reveal a case of udder tuberculosis, despite the fact that a bulk sample of milk taken from the produce of the herd has given a positive biological result. Nevertheless, it is felt that these reasons are not sufficient to explain wholly the disconcerting discrepancy between our findings and those of the indicting authority. The sampling of bulk milk, with a view to submitting it to a biological test for tubercle bacilli, is a very commendable practice, and is to be encouraged, but unless the utmost care is exercised by all concerned, much of this valuable work will be rendered futile. Perhaps the greatest responsibility in this connection lies with the officials collecting the original samples. Unless they, in the first instance, take steps to ensure that a particular sample definitely comes from a certain farm, has not been mixed with other supplies, is representative of the whole herd, and that it has been taken with sterile apparatus as aseptically as circumstances permit, erroneous results are certain to ensue and much valuable time and money will be wasted.

It has been stated that approximately a third more positive results are obtained when a biological test is allowed to run for two months instead of one, and considering the fact that one month is the time allowed in the County laboratory, it is a matter of conjecture how many more cases might have been detected if the longer period were adopted. Such a procedure would certainly make more tiresome a method which is tedious enough already, but it may be worthy of a trial.

(c) A STATEMENT OF THE EXTENT TO WHICH SECTIONS 13 AND 14 OF THE MILK AND DAIRIES (SCOTLAND) ACT ARE BEING COMPLIED WITH.

The produce of 147 cows was certified during the year as liable to infect or contaminate the milk, and the usual precautions were taken, but, as already stated, most reliance has to be placed on an owner's sense of duty not to sell such milk. The above figure does not include cases of udder tuberculosis.

No reports were received under Section 14 of the Act.

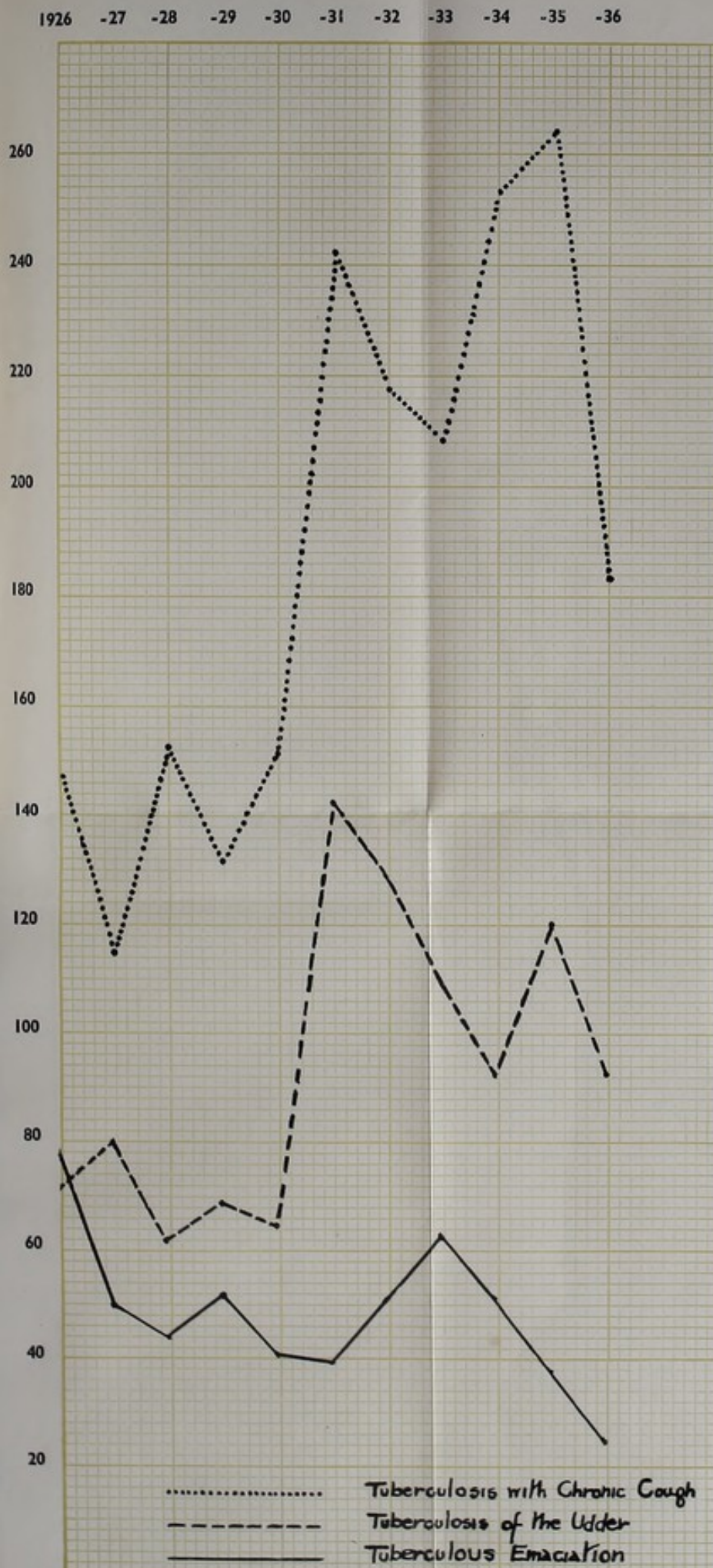
APPENDIX I



1936

Total:- 299

GRAPH SHOWING NUMBER OF CASES DEALT WITH UNDER
THE TUBERCULOSIS ORDER SINCE 1926.



CHAPTER II
THE TUNISIAN

101

By the way, the Tunisian is a very different animal from the Egyptian, and the latter is a very different animal from the Italian.

He is a very different animal from the Egyptian, and the latter is a very different animal from the Italian.

It is a very different animal from the Egyptian, and the latter is a very different animal from the Italian. It is a very different animal from the Egyptian, and the latter is a very different animal from the Italian.

He is a very different animal from the Egyptian, and the latter is a very different animal from the Italian.

THE TUNISIAN

102

103

104

105

BURGHS OF BIGGAR AND LANARK.

In the Burgh of Lanark 3 herds, comprising 26 cows, were examined and in no case was any animal detected amenable to the Tuberculosis Order.

There are no dairy cows kept in the Burgh of Biggar.

In conclusion, I have to record my appreciation of the willing co-operation afforded by those members of the County Staff with whom our work brings us in contact, and also by the members of the Veterinary Department.

I am, Gentlemen,

Your obedient Servant,

JOHN WEIR,
County Veterinary Officer.

TABLE III.

*STATEMENT SHOWING THE NUMBER OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

Tuberculosis of the Udder.			Giving Tuberculous Milk.			Tuberculous Emaciation.			Chronic Cough, &c.			Total.
Total No.	Found on Herd Inspection. No.	%	Total No.	Found on Herd Inspection. No.	%	Total No.	Found on Herd Inspection. No.	%	Total No.	Found on Herd Inspection. No.	%	
89	71	79.8	3	3	100	24	6	25	183	78	42.6	299

* See Map (Appendix I).

TABLE IV.

STATEMENT SHOWING THE NUMBER OF CASES, BOTH NEGATIVE AND POSITIVE, REPORTED UNDER THE TUBERCULOSIS ORDER, OR DETECTED DURING THE ROUTINE INSPECTION OF DAIRY HERDS.

Owner.		Reported by				Detected by County Veterinary Inspector. Pos.	Totals. Pos.
		Private Veterinary Surgeons.		Veterinary Inspectors of other Local Authorities.			
Pos.	Neg.	Pos.	Neg.	Pos.	Neg.		
120	104	21	13	—	—	158	299

Slaughtered by owner while under investigation, 2

Died while under investigation, ... 4

TABLE V.

STATEMENT SHOWING RESULTS OF POST-MORTEM EXAMINATIONS OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

	Tuberculosis of the Udder.	Giving Tuberculous Milk.	Tuberculous Emaciation.	Chronic Cough, &c.	Totals.	Approximate Average.
"Advanced,"	39	0	18	100	157	52.5
"Not Advanced,"	62	3	4	73	142	47.5
"Not Affected,"	—	—	—	—	—	—
	101	3	22	173	299	

BURGH OF BIGGAR.

(Area, 72 Acres).

Report of the Medical Officer of Health, 1936.

Statistics.

The **Population**, as estimated by the Registrar-General, amounted to 1,281.

The **Births** registered in the Burgh amounted to 20—males, 10; females, 0—giving a birth-rate of 15·6 per 1,000 of the population.

The **Deaths** registered during the year, after correction for transfer, numbered 15, giving a death rate of 11·71 per 1,000 of the population.

Prevalence of Infectious Diseases.

Notifiable Diseases.—In all, 12 cases of infectious diseases were notified :—Scarlet fever, 9; enteric fever, 2; encephalitis lethargica, 1. Of these, 5 cases of scarlet fever were treated in hospital. Visits of inspection were made to the homes where the cases occurred, and disinfections carried out. All precautions to prevent the spread of the disease were taken.

Tuberculosis.

Notification.—During the year, 1 new case of pulmonary tuberculosis was notified.

Institutional Treatment.—No cases received institutional treatment during the year.

Domiciliary Treatment.—No cases received extra nourishment during the year.

Maternity and Child Welfare.

Notifications of Births.—20 notifications were received, all being live-births, and the attendant at birth in each case was :—Doctor, 3 ; doctor and midwife, 12 ; B.B.A., 1 ; Institution, 4.

Puerperal Fever.—No cases occurred during the year.

Midwives (Scotland) Act, 1915.

Practising Midwives.—There are no practising midwives in the Burgh.

General Sanitation.

Water Supply.—The supply was satisfactory and adequate.

Drainage and Sewage Disposal.—The new purification works are working satisfactorily.

Housing.—No progress has yet been made with the erection of the 32 houses to relieve overcrowding. It is hoped that steps will be taken in the matter soon.

Eight new houses are under construction to accommodate the tenants from unfit dwellings.

Milk and Dairies (Scotland) Act, 1914.—There is one registered retail milk shop in the Burgh.

JOHN M. LANG,
Medical Officer of Health.

BURGH OF BIGGAR.

SANITARY INSPECTOR'S REPORT FOR 1936.

Water Supply for the Burgh of Biggar is obtained from King's Beck Burn, about seven miles south of Biggar. The Town Council inspected the dam and works in the month of July. The supply was sufficient for all purposes.

Drainage and Sewage.—The purification tanks and works which are situated about one mile south-east of the Burgh dealt with all the sewage satisfactorily.

Scavenging System is the same as formerly, the ashes being removed every second day, and all trade refuse burned at the Burgh coup which is situated about two miles north of the Burgh.

Water-Closets.—There are eight water-closets for two tenants and six water-closets each for three tenants.

There are no dry-closets in the Burgh.

Ashpits.—There are no ashpits or middens in the Burgh.

Nuisances.—Two cases were dealt with during the year, but after the usual notice being given, they were removed, no legal proceedings being necessary.

The High Schools.—The two schools were inspected frequently and always found to be kept in a clean condition.

Cowkeepers and Milk Shops.—There is one registered retail milk shop in the Burgh.

Pigstyes.—There are two pigstyes in the Burgh. Visits of inspection were frequent and the styes were found to be kept clean.

Common Lodging-houses.—There are none in the Burgh.

Burial Ground is all within the Burgh and is kept in good order.

There are two properties (4 houses) without inside sinks and water supply.

Housing.—Eight new houses are under construction to accommodate the tenants from unfit dwellings.

Workshops.—There are no underground workshops in the Burgh. The following is a list of the workshops and the number of persons employed :—

Workshops.	Number of Employees.				
	No. of Shops.	Males.	Females.	Apprentices.	Total.
Dressmakers and Milliners,	8	5	9	2	16
Tailors,	2	5	1	—	6
Bakers,	3	11	9	3	23
Cabinetmakers,	2	4	2	1	7
Jewellers,	3	3	1	—	4
Harnessmakers,	1	3	1	—	4
Blacksmiths,	2	4	—	1	5
Shoemakers,	4	6	2	—	8
Engineers,	6	12	—	5	17
Plumbers,	2	8	—	4	12
Painters,	4	14	—	4	18
Joiners,	4	12	—	3	15
	41	87	25	23	135

Slaughterhouse.—The slaughterhouse is situated outside the Burgh. It was inspected frequently and found to be kept clean and in good order. The record of animals killed and the dues collected are as follows :—

Cattle.	Calves.	Swine.	Sheep.	Total.	Dues Collected.
565	114	384	48,305	49,368	£507 17s. 7d.

Record of Inspections Made.							No. of Inspections.
High Schools, ... ..	...	...	...	...	...	...	9
Workshops, ... ..	...	...	...	...	...	...	12
Pigstyes, ... ..	...	...	...	...	...	...	5
Fish Shops, ... ..	...	...	...	...	...	...	12
Slaughterhouse, ... ..	...	...	...	...	...	...	10
							48
							—

WILLIAM M. SMITH,
Sanitary Inspector,

BURGH OF LANARK.

(Area, 507 acres).

Report by the Medical Officer of Health

Statistics.

The **Population**, as estimated by the Registrar-General, was 6,168.

Births.—The number of births registered in the Burgh during the year was 86, a decrease of 5 from last year—males, 41 ; females, 45—giving a birth-rate of 13·9 per 1,000 of the population.

Mortality.—The deaths registered during the year, after correction for transfers, numbered 88, giving a death-rate from all causes of 14·27 per 1,000 of the population. The deaths of infants under 1 year numbered 8, giving an infant mortality rate of 93·0 per 1,000 births.

Prevalence of Infectious Diseases.

The number of cases of infectious diseases notified during the year was 56. The various diseases notified were :—Scarlet fever, 17 ; diphtheria, 9 ; typhoid fever, 1 ; erysipelas, 2 ; puerperal pyrexia, 1 ; ophthalmia neonatorum, 2 ; primary pneumonia, 19 ; influenzal pneumonia, 4 ; cerebro-spinal fever, 1.

Hospital Admissions.—The following cases were admitted to hospital :—Scarlet fever, 14 ; diphtheria, 9 ; typhoid fever, 1 ; erysipelas, 1 ; puerperal pyrexia, 1 ; primary pneumonia, 13 ; influenzal pneumonia, 1 ; cerebro-spinal fever, 1.

Tuberculosis.

Notifications.—During the year 10 notifications of the disease were received, 7 being of the pulmonary and 3 of the non-pulmonary type.

Institutional Treatment.—7 cases received institutional treatment—4 pulmonary and 3 non-pulmonary.

Domiciliary Treatment.—3 cases received domiciliary assistance during the year.

Maternity and Child Welfare.

Notifications and Attendances at Confinements.—88 notifications were received, 85 being live-births. From the information received, it was found that, in 26 cases, a doctor was in attendance, in 17 cases a doctor and midwife, in 4 cases a doctor and handywoman, in 19 cases a certified midwife and in 2 cases a handywoman. 20 cases were confined in hospital.

Maternal Mortality.—1 death from puerperal fever occurred during the year.

Puerperal Pyrexia.—1 case occurred during the year.

Ophthalmia Neonatorum.—No cases occurred during the year.

Hospital Admissions.—9 cases were admitted to the County Maternity Hospital, Bellshill, and 15 cases to the County Hospital, Lanark.

Ear, Throat, and Nose Ailments.—1 child was admitted to the County Convalescent Home, Calderbank House, for the removal of tonsils and adenoids.

Midwives (Scotland) Act, 1915.

Practising Midwives.—2 certified midwives notified their intention to practise.

Inspection of Midwives.—8 routine inspections were carried out during the year. Records were kept in a satisfactory manner.

General Sanitation.

Water Supply.—The water supply was satisfactory and adequate. During the year an agreement was entered into with the County Council whereby an adequate supply of water will be assured.

Drainage and Sewage Disposal.—No complaints were received although the Sewage Purification Works are not working satisfactorily. It is hoped that consideration will be given to the reconstruction of the works on an early date.

Housing.—28 houses were erected and occupied under the Slum Clearance Scheme and the Town Council have agreed to proceed with the erection of 160 houses for slum clearance and decrowding.

The measuring of houses with a rental not exceeding £45 has now been completed, and as a result 34 additional houses were found to be overcrowded, making a total of 346 houses in the Burgh overcrowded.