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Contributors

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COUNTY COUNCIL OF LANARK.

ANNUAL REPORTS

OF THE

COUNTY AND DISTRICT MEDICAL OFFICER

AND THE

DISTRICT SANITARY INSPECTORS

FOR THE YEAR 1929.

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COUNTY COUNCIL OF LANARK.

ANNUAL REPORTS

OF THE

COUNTY AND DISTRICT MEDICAL OFFICER OF HEALTH

AND THE

DISTRICT SANITARY INSPECTORS

FOR THE YEAR 1929.

GLASGOW:

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MCMXXX

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Dysentery,	—	125	225	501
Puerperal Fever,	—	126	224	510
Acute Anterior Poliomyelitis,	—	—	228	501
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STAFF.

COUNTY HEALTH DEPARTMENT.

County and District Medical Officer.

J. Hume Patterson, F.R.F.P.S.(G.), D.P.H.

Assistant Health Officers and Tuberculosis Officers.

Middle Ward District—

J. M'Callum Lang, M.D., D.P.H.

David R. Hamilton, M.A., M.B., Ch.B., D.P.H.

Geo. W. Murray, M.B., Ch.B., D.P.H.

Upper Ward District—

Alex. Fraser, M.D., D.P.H.

Lower Ward District—

G. Macleod Millar, M.B., Ch.B., D.P.H.

Bacteriologist.

James L. Brownlie, M.D., D.P.H.

Chemist.

Walter Brown, F.C.S.

Senior Inspectors—Food and Drugs, Rivers Pollution, &c.

Charles MacAra.

Frank M'Arthur.

District Sanitary Inspectors.

Middle Ward District—

John Millar.

Upper Ward District—

William Paterson.

Lower Ward District—

John B. Philip.

& Tropical Medicine
1 JUNE 1930

COUNTY OF LANARK

(EXCLUSIVE OF BURGHS).

Report of the County and District Medical Officer.

Year 1929.

Staff.

In addition to the Medical Staff given on the opposite page, two Medical Officers are also employed in connection with the Maternity and Child Welfare Scheme in the Middle Ward District.

During the year Dr. Edgar A. Underwood resigned his position to take up an appointment in Rotherham, Yorkshire. The vacancy thus created was filled by the appointment of Dr. George W. Murray, who was previously employed in connection with the Maternity and Child Welfare Scheme in the Middle Ward District.

Statistics.

The *Area* of each of the three Sanitary Districts of the County is as follows:—Middle Ward, 184,683 acres; Upper Ward, 326,803 acres; and Lower Ward, 21,101 acres.

The *Population*, as ascertained at the Decennial Censuses, 1891, 1901, 1911, and 1921, as well as the estimated population for the years 1922-1929, are given in the following tabular statement. The population, estimated to the middle of the year, is based upon the number of occupied houses according to the Valuation Roll and the institution population in the annual Police Census:—

(*Census Population.*)

Year.	Middle Ward.	Upper Ward.	Lower Ward.	County.
1891, -	142,548	37,005	30,261	209,814
1901, -	179,363	40,420	*41,531	261,314
1911, -	202,663	42,978	56,974	302,615
1921, -	218,817	46,701	29,933	295,451

* Does not include the population (5,642) in the area annexed to the Burgh of Govan as from 15th August, 1901.

(Estimated Population.)

Year.	Middle Ward.	Upper Ward.	Lower Ward.	County.
1922, -	224,790	46,870	30,220	301,880
1923, -	232,700	47,700	31,500	311,900
1924, -	237,000	48,400	32,600	318,000
1925, -	237,000	48,200	33,000	318,200
1926, -	237,000	48,200	29,750	314,950
1927, -	236,000	48,000	30,000	314,000
1928, -	239,000	48,200	33,300	320,500
1929, -	239,000	48,500	34,000	321,500

The reduction in the area and population through extension of Burgh Boundaries since the year 1891 was as follows:—

	Acreage.	Estimated Population.
1896—City of Glasgow, - - -	450	632
Burgh of Wishaw, - - -	465	1,100
1899—City of Glasgow, - - -	370	399
1901—Burgh of Govan, - - -	209	5,642
Do. Hamilton, - -	67	—
1906— Do. Rutherglen, - -	469	3,000
1908— Do. Motherwell, - -	438	3,600
Do. Lanark, - - -	214	260
1912—City of Glasgow, - - -	1,706	28,490
1913—Burgh of Renfrew, - -	216	18
1914— Do. Coatbridge, - -	32	4
1920— Do. Motherwell and Wishaw,	296	500
1924— Do. Coatbridge, - -	202	10
1925— Do. Hamilton, - -	898	84
1926—City of Glasgow, - -	3,542	4,350
1927—Burgh of Airdrie, - -	335	405

The Natural Increase of the Population—i.e., the excess of births over deaths—also shows a considerable decline since the decennial period 1891-1900, the figures for the three decennial periods 1891-1920, for the quinquennial period 1921-1925, and for the years 1926-9 being as follows:—

	Annual Average							
	1891-1900	1901-1910	1911-1920	1921-1925	1926	1927	1928	1929
Natural increase, ...	4,563	5,844	4,843	4,526	4,049	3,648	3,390	2,743
Natural increase per 1,000 of the Population, ...	19·3	20·5	16·7	14·6	12·8	11·6	10·5	8.5

Rates.—For the purposes of comparison, Table A shows birth and mortality rates of each Sanitary District for the last three decennial periods, for the quinquennial period 1921-25, and for the years 1926.

1927, 1928, and 1929. It will be observed that the rates are highest in the Middle Ward District, where the employment of the population is chiefly in mining and manufacturing industries.

In each district there has been a marked decline in the birth-rate and death-rate since the decennial period of 1901-1910.

TABLE A.—SHOWING BIRTHS AND DEATHS IN EACH COUNTY SANITARY DISTRICT; BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION; AND INFANTILE DEATHS AND INFANT MORTALITY RATES PER 1,000 BIRTHS.

	Average 1891-1900.	Average 1901-1910.	Average 1911-1920.	Average 1921-1925.	1926.	1927.	1928.	1929.
MIDDLE WARD.—								
Births, ...	6,232	7,412	6,820	6,406	5,928	5,640	5,382	4,994
Birth-rates, ...	39·1	38·9	32·5	27·8	25·0	23·9	22·5	20·9
Infant Deaths (under one year), ...	809	921	754	592	489	493	491	426
Infant Deaths per 1,000 Births, ...	129·9	124·2	110·4	92·4	82·4	87·4	91·2	85·3
Deaths, ...	2,908	3,118	3,000	2,789	2,618	2,649	2,614	2,729
Death-rates, ...	18·1	16·3	14·3	12·1	11·0	11·2	10·9	11·4
UPPER WARD.—								
Births, ...	1,222	1,209	1,143	1,125	999	920	888	845
Birth-rates, ...	31·6	28·9	25·9	23·6	20·7	19·2	18·5	17·4
Infant Deaths (under one year), ...	116	104	91	81	52	64	61	64
Infant Deaths per 1,000 Births, ...	95·5	86·5	80·2	71·8	52	69·5	68·7	75·7
Deaths, ...	606	552	561	541	498	522	517	531
Death-rates, ...	15·6	13·2	12·7	11·3	10·3	10·8	10·8	10·9
LOWER WARD.—								
Births, ...	1,200	1,576	869*	651	591*	567	623	595
Birth-rates, ...	32·9	33·4	24·1*	20·6	19·0*	18·9	18·7	17·5
Infant Deaths (under one year), ...	150	174	88*	51	39*	46	59	40
Infant Deaths per 1,000 Births, ...	125·2	110·8	98·2*	78·6	65·9*	81·1	94·7	67·2
Deaths, ...	577	683	428*	326	353*	308	372	431
Death-rates, ...	15·9	14·4	12·2*	10·3	11·3*	10·3	11·1	12·7

* By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913, and again by the Glasgow Boundaries Act, 1926, a further annexation of 3,542 acres, with a population of 4,350, took place, which affected the statistics for the year 1926.

Details with regard to the various causes of death and the births and deaths in each parish will be found in the district reports.

The following Table B gives the deaths in each of the three County sanitary areas, classified according to cause, and the death-rates per 1,000 of the population :—

TABLE B 1929.

Cause of Death.	Middle Ward. Deaths	Middle Ward. Death-rate per 1,000 population.	Upper Ward. Deaths.	Upper Ward. Death-rate per 1,000 population.	Lower Ward. Deaths.	Lower Ward. Death-rate per 1,000 population.
Typhoid Fever,	2	·00	—	—	—	—
Smallpox,	—	—	—	—	—	—
Measles,	4	·01	—	—	2	·06
Scarlet Fever,	2	·00	3	·06	—	—
Whooping-Cough,	101	·42	10	·20	11	·32
Diphtheria,	20	·08	4	·08	—	—
Influenza,	168	·70	21	·43	29	·85
Cerebro-spinal Fever,	5	·02	—	—	2	·06
Erysipelas,	8	·03	2	·04	—	—
Encephalitis Lethargica,	7	·02	—	—	1	·03
Mumps,	2	·00	—	—	—	—
Malaria,	—	—	—	—	—	—
Tetanus,	2	·00	—	—	—	—
Dysentery,	—	—	—	—	1	·03
Acute Anterior Poliomyelitis,	1	·00	—	—	—	—
Pulmonary Tuberculosis,	125	·52	18	·37	28	·82
Meningeal ,,	22	·09	4	·08	3	·08
Abdominal ,,	20	·08	2	·04	—	—
Other Tuberculous Diseases,	22	·09	2	·04	2	·06
Septicæmia and Pyæmia,	11	·04	2	·04	1	·03
Rheumatic Fever,	8	·03	5	·10	—	—
Malignant Diseases,	211	·88	63	1·29	48	1·41
Meningitis (simple),	18	·07	6	·12	1	·03
Cerebral Hæmorrhage,	161	·67	45	·92	39	1·14
Other Nervous Diseases,	61	·25	6	·12	12	·35
Organic Heart Disease.	301	1·25	70	1·44	43	1·26
Other Circulatory Diseases,	76	·31	16	·33	6	·17
Bronchitis,	158	·66	23	·47	17	·5
Pneumonia (all forms),	285	1·19	39	·80	27	·79
Other Respiratory Diseases,	25	·10	14	·28	6	·17
Diabetes,	29	·12	3	·06	5	·14
Pernicious Anæmia,	12	·05	4	·08	4	·11
Diseases of Ductless Glands,	15	·06	1	·02	2	·06
Appendicitis, Typhlitis,	15	·06	4	·08	2	·06
Liver Diseases (not Malignant),	21	·08	2	·04	3	·08
Other Digestive Diseases,	84	·35	19	·39	11	·32
Nephritis, Bright's Disease,	68	·28	11	·22	10	·29
Dis. of Genito-Urinary System,	18	·07	4	·08	3	·08
Dis. of Female Genital Organs,	6	·02	3	·06	—	—
Puerperal Sepsis,	14	·05	—	—	1	·03
Dis. and Acc. of Pregnancy, &c.,	11	·04	5	·10	—	—
Congenital Hydrocephalus,	3	·01	2	·04	—	—
Congenital Heart Diseases,	7	·02	—	—	—	—
Congenital Malformation,	24	·10	3	·06	3	·08
Infantile Convulsions,	23	·09	—	—	—	—
Diarrhœa (under 2 years),	38	·15	8	·16	3	·08
Premature Birth,	81	·33	14	·28	8	·23
Injury at Birth,	10	·04	—	—	3	·08
Atrophy, D. and M.,	73	·30	16	·33	13	·38
Atelectasis,	5	·02	—	—	1	·03
Suffocation—Overlying,	—	—	—	—	—	—
Rickets,	1	·00	—	—	—	—
Other Diseases of early infancy,	1	·00	—	—	—	—
Syphilis,	2	·00	—	—	1	·03
Violence,	103	·43	21	·43	22	·64
Suicide,	11	·04	—	—	—	—
Other Defined Diseases,	178	·74	55	1·13	42	1·23
Ill-Defined Diseases,	50	·20	1	·02	14	·41
	2,729	11·41	531	10·94	431	12·67

The following table gives a comparison of the County birth and mortality rates with those of the Burgh areas for the year 1929. For this information I am indebted to the Registrar-General. It should be noted that the figures for the three County Sanitary Districts are slightly different from the figures published by the Public Health Department, due to the fact that the Registrar-General's estimated population differs from that of the Public Health Department :—

	YEAR 1929.			
	Population estimated by Registrar-General.	Birth-rate. Corrected for Transfers.	Death-rate. Corrected for Transfers.	Infantile Mortality Rate. Corrected for Transfers.
COUNTY OF LANARK—				
Middle Ward, -	230,573	21·7	11·9	85
Upper Ward, -	48,445	17·4	11·0	75
Lower Ward, -	31,038	19·2	13·8	67
BURGHS—				
Glasgow, - -	1,074,881	21·2	16·5	107
Motherwell and Wishaw, -	71,227	20·2	11·3	86
Coatbridge, -	45,165	24·4	14·3	83
Hamilton, -	40,944	21·4	12·0	88
Airdrie, - -	26,585	22·6	12·9	97
Rutherglen, -	25,825	16·5	13·6	71
Lanark, - -	6,426	15·6	14·0	40
Biggar, - -	1,454	12·4	14·4	56

Prevalence of Infectious Diseases.

Table C gives the cases and deaths due to the various infectious diseases in each Sanitary District during the year :—

TABLE C.

	Middle Ward.		Upper Ward.		Lower Ward.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths
Smallpox,	—	—	—	—	—	—
Diphtheria,	712	20	123	4	64	—
Scarlet Fever,	912	2	160	3	104	—
Typhoid „ Paratyphoid,	18	2	6	—	—	—
Continued Fever,	3	—	—	—	1	—
Cerebro-spinal Fever,	19	5	2	—	4	2
Erysipelas,	215	8	30	2	24	1
Puerperal Fever,	94	14	5	—	10	1
Puerperal Pyrexia,	7	—	1	—	1	—
Actinomycosis,	—	—	1	—	—	—
Infantile Paralysis,	7	1	—	—	—	—
Ophthalmia Neonatorum,	73	—	1	—	9	—
Malaria,	4	—	—	—	—	—
Dysentery,	2	—	1	—	—	1*
Tetanus,	2	2	—	—	1	—
Primary Pneumonia,	1,180	285	77	39	88	27
Influenzal „	193		35		36	
Pulmonary Tuberculosis,	313	125	26	18	55	28
Non-Pulmonary „	323	64	22	8	19	5
Encephalitis Lethargica,	14	7	2	—	2	1
Infective Jaundice,	—	—	—	—	—	—
†Measles,	—	4	—	—	—	2
†Whooping-Cough,	—	101	—	10	—	11
Chickenpox,	1,016	—	239	—	191	—

* This case was not notified.

† Not being notifiable the number of cases cannot be ascertained.

Diphtheria.

A—Cases per 10,000 population. B—Deaths per 10,000 population.
C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95,	13·9	4·9	35·1	20·0	3·69	17·8	7·5	2·47	32·6
1896-1900,	8·5	2·0	24·3	22·0	1·46	6·53	8·4	1·73	20·4
1901-05,	8·0	1·8	22·3	16·0	1·6	10·3	11·0	1·5	13·5
1906-10,	19·3	2·0	10·8	36·6	1·74	4·75	26·0	1·9	7·2
1911-15,	16·3	1·5	9·9	21·8	1·83	8·40	23·0	1·9	8·6
1916-20,	14·2	1·3	10·0	18·0	1·5	8·5	12·0	1·2	9·7
1921-25,	13·1	1·3	9·6	16·3	0·8	5·1	15·0	0·9	6·3
1926,	14·9	0·7	4·5	22·2	0·8	3·7	23·8	1·9	8·1
1927,	19·6	0·4	2·1	17·3	0·8	4·8	28·7	0·6	2·3
1928,	26·2	1·1	4·4	18·2	0·2	1·1	21·6	1·2	5·5
1929,	29·7	0·8	2·8	25·3	0·8	3·2	18·8	—	—

In the Middle Ward District 712 cases were notified, compared with 627 in the preceding year.

In the Upper Ward District 123 cases were notified, compared with 88 in the preceding year.

In the Lower Ward District 64 cases were notified, compared with 72 in the preceding year, but no deaths occurred in that area.

In many instances the diagnosis was revised after admission to hospital. Details of these are given in the District reports.

Scarlet Fever.

A—Cases per 10,000 population.
B—Deaths per 10,000 population.
C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	74·2	2·2	3·06	78·8	1·77	2·3	55·1	2·6	4·6
1896-1900,	61·3	2·4	3·98	82·7	2·28	2·7	58·5	2·4	4·0
1901-05, -	34·4	1·3	3·90	45·6	0·97	2·13	29·6	0·9	2·9
1906-10, -	46·7	1·1	2·54	55·2	0·70	1·27	42·1	1·2	2·7
1911-15, -	57·0	1·3	2·43	60·3	1·14	1·9	59·0	1·6	2·8
1916-20, -	43·6	0·9	2·61	35·0	0·5	1·5	21·0	0·2	1·2
1921-25, -	50·7	0·9	1·9	65·6	1·09	1·6	27·7	0·2	0·9
1926, -	37·0	0·4	1·25	30·7	0·2	0·6	25·4	0·6	2·5
1927, -	23·1	0·2	0·92	22·5	—	—	22·3	1·0	4·5
1928, -	35·1	0·3	0·83	55·6	0·82	1·5	33·9	—	—
1929, -	38·1	0·08	0·2	32·9	0·6	1·8	30·5	—	—

In the Middle Ward District the number of cases notified was 912, compared with 839 last year.

In the Upper Ward District 160 cases were notified, compared with 268 in the pervious year.

In the Lower Ward District 104 cases were notified, compared with 113 last year. No deaths were recorded this year.

In many instances the diagnosis was revised after admission to hospital. Details of these are given in the District reports.

Typhoid or Enteric Fever.

A—Cases per 10,000 population.
B—Deaths per 10,000 population.
C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	30·9	4·2	11·95	12·2	1·5	12·4	14·0	2·2	15·5
1896-1900,	20·7	2·6	12·73	6·9	1·2	17·6	11·3	1·5	13·0
1901-05, -	15·6	2·1	13·54	4·9	0·9	18·8	8·8	1·2	13·3
1906-10, -	10·4	0·9	9·40	2·9	0·5	17·4	7·6	0·6	8·4
1911-15, -	5·4	0·5	11·09	1·4	0·3	23·3	2·5	0·5	19·2
1916-20, -	4·0	0·5	12·74	0·7	0·02	5·9	1·7	0·06	3·8
1921-25, -	2·4	0·2	10·4	0·2	0·04	25·0	0·5	0·06	12·5
1926, -	0·7	0·12	16·6	—	—	—	1·3	0·3	25·0
1927, -	0·3	0·08	25·0	—	—	—	—	—	—
1928, -	1·1	0·12	10·7	—	—	—	0·9	—	—
1929, -	0·07	0·08	11·1	—	—	—	—	—	—

18 notifications were received in the Middle Ward District, but in 12 cases the diagnosis was altered as follows:—Paratyphoid B., 7; positive widal, 2; diarrhœa, 1; bronchitis and myocarditis, 1; and negative, 1.

Measles and Whooping-Cough.

Death-rates per 10,000 of the Population.

	Measles.			Whooping-Cough.		
	Middle Ward.	Upper Ward.	Lower Ward.	Middle Ward.	Upper Ward.	Lower Ward.
1891-95, -	9·3	3·4	5·2	6·2	5·6	2·8
1896-1900, -	6·5	2·2	6·2	5·2	2·9	5·3
1901-05, -	4·2	0·5	4·8	5·7	2·3	6·3
1906-10, -	5·7	2·1	4·5	4·8	2·7	5·4
1911-15, -	5·3	0·8	3·0	6·1	1·6	3·4
1916-20, -	4·4	1·3	2·0	3·9	1·8	2·6
1921-25, -	3·2	1·1	1·4	4·3	2·5	1·8
1926, -	2·9	1·2	1·6	1·0	—	0·3
1927, -	0·8	0·6	—	1·4	0·6	2·6
1928, -	3·4	1·0	1·8	3·5	1·2	1·8
1929, -	0·1	—	0·5	4·2	2·0	3·2

Of the 128 deaths recorded due to measles and whooping-cough, 49 were infants under one year of age, 76 were children from one to five years, and 3 were over five years of age.

Pulmonary Tuberculosis.

Morbidity. A—Cases per 10,000 population.
Mortality. B—Deaths per 10,000 population.
Fatality. C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95	—	13·5	—	—	12·0	—	—	12·8	—
1896-1900,	—	11·4	—	—	11·9	—	—	11·7	—
1901-05, -	—	10·0	—	—	10·5	—	—	12·4	—
1906-10, -	14·6	8·8	60·3	8·4	8·1	97·2	12·2	11·3	87·7
1911-15, -	16·2	8·1	50·3	11·4	7·0	64·0	14·5	6·8	47·4
1916-20, -	16·4	7·5	46·1	9·6	6·3	65·1	14·0	7·3	52·4
1921-25, -	17·2	5·9	39·6	8·8	4·8	54·9	14·3	5·8	40·7
1926, -	16·3	5·3	32·2	6·6	4·3	65·6	18·4	6·8	36·8
1927, -	14·3	4·8	33·4	9·2	5·8	63·6	10·3	5·3	51·6
1928, -	13·5	4·8	36·2	6·2	4·1	66·6	15·6	7·2	46·1
1929, -	13·0	5·2	39·9	5·3	3·7	69·2	16·1	8·2	50·9

Non-Pulmonary Tuberculosis.

Morbidity. A—Cases per 10,000 population.
Mortality. B—Deaths per 10,000 population.
Fatality. C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	—	9·7	—	—	6·2	—	—	7·1	—
1896-1900,	—	8·9	—	—	4·4	—	—	6·8	—
1901-05,	—	8·2	—	—	4·9	—	—	7·2	—
1906-10,	—	8·9	—	—	4·4	—	—	7·6	—
1911-15,	—	6·9	—	—	2·8	—	—	5·8	—
1916-20,	16·3	5·3	32·4	5·6	3·3	60·0	10·3	3·5	35·5
1921-25,	20·8	4·8	23·2	6·7	2·9	44·3	10·7	2·6	24·2
1926,	20·1	3·9	19·4	6·6	2·3	34·3	8·4	2·2	26·9
1927,	16·7	3·1	18·8	5·0	2·1	41·6	8·0	2·0	25·0
1928,	16·1	3·2	20·2	6·4	1·9	29·0	6·9	2·4	34·7
1929,	13·5	2·6	19·8	4·5	1·6	36·3	5·5	1·4	26·3

In recent years there has been a slight decrease in the number of cases notified, but the deaths per 10,000 of the population show a remarkable reduction.

Institutional Accommodation.

All the institutional accommodation in the County is provided by each of the three District Committees, and details of the work carried

out at the various institutions are given in the District Reports. The following tabular statement shows the institutions throughout the County and the nature of the work carried out :—

Institution.	Nature of Work.
Middle Ward District—	
County Hospital, Motherwell,	All forms of acute infectious disease; surgical tuberculosis; indoor and out-door treatment of venereal diseases; X-rays. with radiographic equipment. Recognised as a training school for nurses by the General Nursing Council.
Hairmyres Colony, by East Kilbride,	Treatment and training of adult cases of tuberculosis; light treatment; artificial pneumothorax treatment and education of children; especially those in early stages of the disease and those in whom the disease is quiescent.
County Orthopædic Hospital, Stonehouse,	Non-pulmonary forms of tuberculosis, including orthopædic treatment—both sexes. X-ray, with radiographic equipment.
County Sanatorium, Shotts,	Pulmonary tuberculosis—both sexes. Out-patient clinic with artificial light treatment.
County Sanatorium, Uppertown, Longriggend,	Pulmonary tuberculosis—both sexes. Artificial light treatment.
County Hospital, Bellshill,	Maternity Hospital for simple and complicated cases of labour. Has special wards for ante-natal and post-natal cases. Recognised by the Central Midwives Board as a training school for midwives.
County Convalescent Home, Calderbank House, Baillieston.	For mothers and children under 5 years requiring convalescent treatment.
County Hospital, Blantyre,	For mothers and babies.
County Hospital, Dalserf,	This small hospital is used for emergency purposes, but during the year was used in connection with the County Orthopædic Hospital, Stonehouse.
Upper Ward District—	
District Sanatorium, Roadmeetings, Carluke,	Pulmonary Tuberculosis—both sexes.
District Hospital, Roadmeetings, Carluke,	All forms of acute infectious disease.

Institution.	Nature of Work.
Lower Ward District—	
†Lightburn Joint-Hospital, Shettleston,	All forms of acute infectious disease; one pavilion is set aside entirely for the treatment of Lower Ward tuberculosis patients. Recognised as a training school for nurses by the General Nursing Council.

†This institution is owned jointly by the Lower and Middle Ward District Committees and by the Corporation of Glasgow in the following proportions: Lower Ward, $\frac{3}{8}$ths; Middle Ward, $\frac{3}{8}$ths; and Glasgow, $\frac{1}{8}$th.

Venereal Diseases.

Since the year 1921 a joint-scheme has been in operation in the County of Lanark, this scheme including the Burghs of Airdrie, Coatbridge, Hamilton, Motherwell and Wishaw, Rutherglen, Lanark, Biggar, Kirkintilloch, and the three District Committees—Upper, Middle, and Lower Ward Districts. In the County area there is now only one clinic, viz., County Hospital, Motherwell, and an irrigation station at Shotts. In addition to the clinic in the County area, there are also three clinics situated in the Burgh areas, viz., Coatbridge, Wishaw, and Hamilton. Since 15th May, 1929, the Upper and Lower Ward District Committees have withdrawn from the joint-scheme.

Maternity Service and Child Welfare.

The Schemes drawn up under the Notification of Births (Extension) Act, 1915, are all administered by the respective District Committees, and the details of the work carried out under these schemes are given in the District Reports. Two Medical Officers are employed by the Middle Ward District Committee to devote the whole of their time to this work, and the Assistant Health Officers also act as Medical Officers at various centres. In addition to the staff of Nurse Health Visitors employed by the District Committees, the services of District Nurses are obtained in certain rural areas as part-time Health Visitors.

Details of the work carried out at Bellshill Maternity Hospital, Calderbank Convalescent Home, and the small Institution at Blantyre are given in the Report for the Middle Ward District.

Housing.

The number of *Occupied* and *Unoccupied Houses* as given in the Valuation Roll, for each year since 1922, was as follows:—

Year	1922	1923	1924	1925	1926	1927	1928	1929
Upper Ward—								
Occupied, -	9,858	10,109	10,225	10,218	10,165	10,152	10,193	10,260
Unoccupied,	102	110	117	135	164	361	458	351
Middle Ward—								
Occupied, -	42,507	44,020	44,836	44,928	44,988	44,716	45,183	45,078
Unoccupied,	706	554	356	362	299	541	711	764
Lower Ward—								
Occupied. -	5,842	6,092	6,322	6,433	5,958	6,153	6,868	7,111
Unoccupied,	18	53	16	42	29	73	71	63
County—								
Occupied, -	58,207	60,221	61,383	61,579	61,111	61,021	62,244	62,449
Unoccupied,	826	717	489	539	492	975	1,240	1,178
Total Houses.	59,033	60,938	61,872	62,118	61,603	61,996	63,484	63,627

During the year there was an increase of slightly over 200 in the number of occupied houses throughout the County, although in the Middle Ward District the number of occupied houses decreased by 105. A large number of unoccupied houses comprised mansion houses and houses about farm steadings, but unfortunately there was also a good number of such houses in the housing schemes of the Middle Ward and the Upper Ward District Committees.

The progress made in the introduction of modern domestic and sanitary conveniences to existing dwellings is referred to in detail in the reports of the District Sanitary Inspectors.

Milk (Special Designations) Order (Scotland), 1923.

On 31st December, 1929, the number of licenceholders in the County of Lanark was as follows:—

Producer's Licence—

Certified milk, ...	14
Grade A (T.T.) milk, ...	23
Grade A milk, ...	4

Dealer's Licence—

Certified milk, ...	2
Grade A (T.T.) milk, ...	8
Certified milk, Grade A (T.T.) milk, and Pasteurised milk, ...	1
Certified milk, and Grade A (T.T.) milk, ...	1
Pasteurised milk, ...	1

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

Blood Heat Organisms per c.c.	Certified.	Grade A (T.T.)	Grade A.	Pasteurised.
Under 1,000, ...	17	6	1	—
,, 2,500, ...	10	21	2	1
,, 5,000, ...	12	28	2	1
,, 10,000, ...	7	49	6	—
,, 20,000, ...	4	43	2	1
,, 30,000, ...	3	10	2	—
,, 50,000, ...	3	7	—	—
,, 100,000, ...	3	5	—	—
,, 200,000, ...	1	1	—	—
Over 200,000, ...	—	5	—	—
	60	175	15	3
Coliform Bacilli present in One-tenth of a c.c.,	13	—	—	1
in One-hundredth of a c.c.,	—	27	2	—
in One-thousandth of a c.c.,	—	—	—	2

Out of the 253 samples of graded milk taken, 205, or 81 per cent., complied with the bacteriological requirements of the Milk (Special Designations) Order. 48 samples taken did not comply with the bacteriological requirements in the following respects :—

6 exceeded the bacterial count.

36 did not comply in respect of the presence of coliform bacilli.

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

The samples which did not conform to the bacteriological requirements of the Order were obtained from 21 producers and two dealers. There were, therefore, 20 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 samples of graded milk taken during the year.

Milk Fat per cent.	Certified.	Grade A (T.T.)	Grade A.	Pasteurised.	Non-fatty solids per cent.	Certified.	Grade A (T.T.	Grade A.	Pasteurised.
2·7	1	—	—	—	8·4	—	—	1	—
3·0	—	1	—	—	**8·5**	1	—	—	—
3·1	—	2	—	—	8·6	2	2	1	—
3·2	1	2	1	—	8·7	1	10	—	—
3·3	—	5	2	—	8·8	4	17	4	—
3·4	2	2	2	1	8·9	5	23	3	1
3·5	—	2	2	—	9·0	6	24	2	2
3·6	2	15	1	2	9·1	13	27	1	—
3·7	4	14	3	—	9·2	9	23	2	—
3·8	6	18	—	—	9·3	5	17	—	—
3·9	5	19	2	—	9·4	6	6	—	—
4·0	3	17	—	—	9·5 & Over	—	2	—	—
4·1	7	18	—	—	—	—	—	—	—
4·2	3	9	1	—	—	—	—	—	—
4·3	5	12	—	—	—	—	—	—	—
4·4	2	6	—	—	—	—	—	—	—
4·5 & Over	11	9	—	—	—	—	—	—	—
—	52	151	14	3	—	52	151	14	3

From the foregoing table it will be seen that 21 samples of graded milk did not comply with the milk fat standard of 3·5 per cent. These samples were taken from 10 producers. The matter was taken up with the producers concerned and subsequent sampling showed that the standard was being complied with.

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

Cleanliness of Non-Graded Milk.

During the year 619 samples of milk were taken by the Food and Drugs Inspectors and the Sanitary Inspectors for examination bacteriologically. The results of examination showed that 346, or 55 per cent., of these samples complied with the standard laid down for Grade A (T.T.) milk and Grade A milk, and of this number 153 also complied with the standard laid down for certified milk.

The 273 samples above the standard did not comply with it in the following respects :—

Samples containing over 200,000 blood heat organisms per c.c. and coliform bacilli present in ·01 or ·001 of a c.c.	73
Samples containing over 200,000 blood heat organisms per c.c., ...	27
Samples with coliform bacilli present in ·01 or ·001 of a c.c.,	173
	273

Where a sample of ordinary milk is found to contain a large number of bacteria per c.c. or coliform bacilli is present in ·001 of a c.c. the Sanitary Inspector is instructed to visit the farm concerned at milking time and report with regard to the cleanliness of the premises and the methods employed. At the same time he suggests any improvement which he may consider will give cleaner milk. This has always had the desired effect, and subsequent samples taken have shown a satisfactory improvement. I would again point out that there is no hardship in asking all dairy farmers to comply with the standard of Grade A milk so far as the bacteriological examination is concerned, and the improvement shown by subsequent sampling of vendors, from whom samples of milk badly contaminated had been obtained, shows that the standard of Grade A milk can be attained by all dairy farmers.

The Food and Drugs Inspector has been supplied with a sediment tester, which he utilizes when taking a sample of milk to impress the producer with regard to the cleanliness to the naked eye. Should the pad, after filtration, show marked evidence of " visible " or insoluble dirt, it is exhibited and explained to the farmer at once.

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

Blood Heat Organisms, per c.c.	Jan. to March	April to June	July to Sept.	Oct. to Dec.	Total.
Under 10,000 - -	28	18	28	26	100
,, 30,000 - -	11	34	37	75	157
,, 50,000 - -	2	20	24	52	98
,, 100,000 - -	3	21	21	42	87
,, 200,000 - -	1	32	27	17	77
,, 300,000 - -	—	12	10	6	28
,, 500,000 - -	—	7	16	6	29
,, 1,000,000 - -	—	9	10	4	23
Over 1,000,000 - -	—	5	11	4	20
	45	158	184	232	619

Coliform bacilli present—					
In one-tenth of a c.c.,	2	38	30	47	117
In one-hundredth of a c.c., - -	2	23	35	39	99
In one-thousandth of a c.c., - -	1	37	63	46	147

Veterinary Inspection of Dairy Herds.

The inspection of dairy herds throughout the County was carried out, as formerly, by the Veterinary Inspector and his assistant with the addition of some temporary assistance. Samples of milk were drawn from all udders which, upon examination, showed conditions suspicious of any disease liable to infect or contaminate the milk. In this way 585 samples were taken and examined in the Bacteriological Laboratory, where 74 samples taken from 71 animals were found to contain tubercle bacilli, and 162 samples taken from 157 animals found to contain other infectious organisms. The animals from which the samples were drawn containing tubercle bacilli were slaughtered under the Tuberculosis Order. In connection with the samples found to contain other infectious organisms, letters were sent to the owners of the animals pointing out that it was an offence to sell milk from such a cow for human consumption, and asking them what they were doing to comply with the Statute. No difficulty was experienced in getting the owners of such animals to discontinue selling the milk from such a cow for human consumption.

During the year 1,819 herds were inspected and 36,233 cows examined.

Bacteriological Laboratory.

Jas. L. Brownlie, M.D., D.P.H.

The following table shows the total number of specimens dealt with since the opening of the Laboratory in 1903, and the sources of supply :—

Record of Work done since 1903.

Year.	Specimens.	Sources of Supply.					
		Med. Pract.	P.H. Staff.	Hosp. Staff.	Sch. Med. Staff.	Vet. Surgeons.	Slaugh. Staff.
1903	569	...	...	...	...	...	...
1904	791	...	...	...	...	...	...
1905	1,270	...	...	...	...	...	...
1906	2,061	1,651	142	209	...	59	...
1907	5,678	2,739	1,794	1,094	...	40	11
1908	8,311	4,310	1,813	1,911	...	249	28
1909	7,774	3,202	1,148	3,041	...	336	47
1910	6,945	2,951	406	3,200	29	322	37
1911	5,949	2,890	494	2,250	99	191	25
1912	6,715	3,542	753	2,193	91	117	19
1913	6,199	3,006	627	2,190	120	244	12
1914	7,193	2,481	1,314	2,985	96	295	22
1915	6,497	2,370	1,212	2,848	2	52	13
1916	3,730	2,161	535	952	...	79	3
1917	4,725	1,990	480	2,136	...	117	2
1918	6,283	1,941	745	3,514	...	81	2
1919	8,595	2,741	1,219	4,446	23	166	...
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

The following table shows the specimens received from the three sanitary districts of the County and from other areas :—

	Upper Ward.		Middle Ward.		Lower Ward.		County Total.		Other Areas.		Total.	
	+	o	+	o	+	o	+	o	+	o	+	o
SPECIMENS OF HUMAN ORIGIN—												
Tuberculosis,	88	214	994	2,098	132	156	1,214	2,468	219	543	1,433	3,011
Typhoid Fever,	23	74	52	164	2	16	77	254	7	51	83	306
Diphtheria,	446	1,268	1,812	5,497	963	1,808	3,221	8,573	456	990	3,677	9,563
Cerebro-Spinal Meningitis,	4	3	9	14	1	2	14	19	5	12	19	31
Venereal Diseases,	10	58	185	1,173	8	50	203	1,281	202	587	405	1,868
Miscellaneous,	32	41	517	344	12	10	561	395	89	102	650	497
SPECIMENS FROM ANIMALS—												
Tuberculosis,	32	230	50	306	5	20	87	556	6	93	93	649
Anthrax,	8	—	11	—	3	—	22	—	1	—	23	—
Scabies,	—	3	—	4	—	—	—	7	—	—	—	7
Miscellaneous,	4	3	9	13	2	—	15	16	1	1	16	17
Milk for bacterial count,		201		679		20		900		48		948
TOTAL,		2,742		13,931		3,210		19,883		3,413		23,296

The specimens from other areas were received from the following Local Authorities :—Hamilton, 798 ; Motherwell and Wishaw, 482 ; Airdrie, 559 ; Coatbridge, 805 ; Rutherglen, 320 ; Kirkintilloch, 56 ; Lanark, 135 ; Biggar, 9 ; Dumbarton, 49 ; and other Authorities, 200

Tubercle.

4,444 specimens were examined for the presence of B. tuberculosis, with the following results :—

	Sputa.		Urines.		Others.	
	+	o	+	o	+	o
Medical Practitioners—County,	103	579	—	9	1	12
,, ,, Burghs,	211	511	1	9	7	23
Hospital Physicians,	969	1,496	3	17	22	74
Public Health Staff,	116	278	—	3	—	—
	1,399	2,864	4	38	30	109

The following table is inserted as a matter of interest in connection with the question of the reliability of direct microscopic examination as against animal inoculation in the search for B. tuberculosis. It will

be seen that, out of a total of 145 submitted to both methods of examination, 19 were missed by the microscope.

	Sputa.		Urines.		Others.	
	+	o	+	o	+	o
Direct Film Examination, - -	—	52	—	16	—	77
Animal Examination, - -	—	52	1	15	18	59

Of the 18 positive "others" 8 were specimens of cerebro-spinal fluid and 10 were specimens of pus.

Typhoid Fever.

389 specimens were examined, with the following results :—

	Agglutination Test.		Blood Cultures.		Fæces.		Urines.	
	+	o	+	o	+	o	+	o
Medical Practitioners—								
County, - -	7	53	—	1	—	5	—	—
Burghs, - -	7	40	—	—	—	9	—	2
Hospital Physicians, -	42	24	5	12	13	48	4	23
Public Health Staff, -	4	77	1	—	—	8	—	4
	60	194	6	13	13	70	4	29

Diphtheria.

13,240 specimens were examined from the following sources :—

	Throat.		Nose.	
	+	o	+	o
Medical Practitioners—County,	466	1,916	14	16
,, ,, Burghs,	441	968	15	22
Hospital Physicians, - -	1,624	3,355	698	597
Public Health Staff, - -	409	2,671	10	18
	2,940	8,910	737	653

Of the primary swabs examined in direct smear preparation, 137 gave positive results.

The biological test for virulence of the diphtheria bacillus was applied in 177 cases with 48 positive results.

Cerebro-Spinal Meningitis.

50 specimens were examined for the presence of the meningococcus, with positive results in 19 cases.

Venereal Diseases.

Syphilis.—1,739 specimens were submitted to the Wassermann test for syphilis, and gave the following results:—

	Blood.	
	+	o
Medical Practitioners—County, - -	55	192
,, ,, Burghs, - -	166	464
Hospital Physicians, - - - - -	107	722
Public Health Staff, - - - - -	1	32
	329	1,410

Treponema Pallidum.—1 specimen was examined with negative result.

Gonorrhœa.—297 specimens were examined, with the following results:—

	Smears.	
	+	o
Medical Practitioners—County, - -	31	92
,, ,, Burghs, - -	32	117
Hospital Physicians, - - - -	5	11
Public Health Staff, - - - -	—	9
	68	229

Ophthalmia Neonatorum.—236 specimens were examined for the presence of gonococci, and 8 of these gave positive results. Of the 228 specimens giving negative results, 37 showed staphylococci, 6 streptococci, 53 B. Xerosis, 12 Koch-Weeks bacilius, 30 Fraenkel's pneumococcus, 4 Morax-Axenfeld's bacillus, and 86 no bacteria.

Miscellaneous Specimens.

Vaccines.—121 were prepared, 118 for medical practitioners, and 3 for hospital physicians. These were for the treatment of boils, acne, bronchitis, asthma, cystitis, &c.

Vincent's Angina.—17 specimens were examined, with positive results in 12.

Puerperal Fever.—103 blood cultures were examined. Streptococci were recovered in 8 cases.

Urine for Albumin.—174 specimens gave 91 positive results.

Others.—The other miscellaneous specimens included pus and urine for pathogenic bacteria; fæces for dysentery, intestinal worms, and ova; 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.—714 samples of milk were received from various Veterinary Inspectors and the Public Health Staff, of which 67 were found positive by microscopic examination, and 13 by biological examination, making a total of 80 positive samples.

Oral Mucus.—12 specimens were examined, and acid-alcohol-fast bacilli were found in 6.

	Milk.			Oral Mucus.		Others.	
	+		o	+	o	+	o
	Smear.	Biological.					
Upper Ward, - -	26	4	227	1	1	2	2
Middle „ - - -	34	6	295	5	5	5	6
Lower „ - - -	4	1	19	—	—	—	1
Other Areas, - -	3	2	93	—	—	—	—
	67	13	634	6	6	7	9

All the above 714 samples of milk were also examined for other deleterious organisms (streptococci, &c.), with positive results in 198.

466 of the specimens found negative on microscopic examination were submitted to animal inoculation, and 14 gave positive results.

In two instances the samples were found to contain both tubercle bacilli and streptococci and in one both tubercle bacilli and "diphtheroid bacilli."

Anthrax.—23 specimens were submitted by the County Veterinary Inspector, and all were positive.

Scabies.—7 specimens were examined, with negative results in all.

Others.—33 specimens were examined, with positive results in 16 cases—tumour formation, 1; deleterious organisms, 13; contagious abortion, 2.

Bacterial Content of Milk.—The results of the examination of 948 samples are classified as under :—

	Certified Milk.	Grade "A" (TT) Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.	74	46	7	6	55
,, 10,000 ,, ,,	12	47	7	2	49
,, 20,000 ,, ,,	12	43	1	3	92
,, 30,000 ,, ,,	5	13	3	1	69
,, 100,000 ,, ,,	7	10	2	2	188
,, 200,000 ,, ,,	1	1	—	1	77
Over 200,000 ,, ,,	—	7	—	—	105
Totals,	111	167	20	15	635
Coliform bacillus present,	25	35	4	6	376

Included in the above totals are 10 Certified, 8 Grade "A" (T.T.), 3 Grade "A," 5 Pasteurised, and 22 ordinary samples of milk from areas other than the County. They are classified as under :—

	Certified Milk.	Grade "A" (T.T.) Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.,	8	2	1	2	3
,, 10,000 ,, ,,	—	2	1	1	1
,, 20,000 ,, ,,	2	—	—	1	4
,, 30,000 ,, ,,	—	4	—	—	2
,, 100,000 ,, ,,	—	—	1	1	5
,, 200,000 ,, ,,	—	—	—	—	3
Over 200,000 ,, ,,	—	—	—	—	4
Coliform bacillus present,	3	3	—	—	15

Destruction of Rats.

2,415 bottles of rat virus were supplied, free of charge on application, to farmers, householders, shopkeepers, &c.

Chemical Laboratory.

WALTER BROWN, F.C.S.

The number of samples analysed or examined during the year amounted to 7,745, an increase of 3,070 over last year.

This large increase is entirely due to a special milk investigation, which was carried out during the year.

The following table shows for each year since 1920 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.		
1920	26	123	142	26	28	217	562
1921	20	54	62	20	97	201	454
1922	50	38	66	32	60	318	564
1923	52	48	84	17	117	155	473
1924	12	101	489	30	100	503	1,235
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

Samples of Sewage.

SEWAGE WORKS.—53 samples from the following sewage purification works :—Westthorn, 22 ; Bishopbriggs, 15 ; Chryston, 7 ; Stepps, 2 ; East Kilbride, 2 ; Gartloch Asylum, Moodiesburn, Stoneyetts, Bellshill, and Philipshill Auxiliary Infirmary, 1 sample each.

Samples of Trade Effluents.

713 samples were examined from the following sources :—

Effluents.	Samples.
Coal Washers, ...	547
Pit Waters.	75
Paper Works, ...	41
Coal Distillation Works, ...	22
Ammonia Works, ...	15
Print Works, ...	5
Clay Works, ...	4
Lead Mines, ...	1
Creameries, ...	1
Knackeries, ...	1
Oil Works, ...	1

Streams.

1,004 samples of water from streams were examined, of which 146 were examined for evidence of sewage pollution, and 856 specially for trade waste impurities :—

Streams affected by Sewage.—River Clyde routine sampling, 110; Tillan Burn, 9; Bothlin Burn, 4; Jock's Burn, 4; Bishopbriggs Burn, 2; Ditch at Blairbeth Road, Burnside, 2; Allanton Burn, 2; Cander Water, 2; Gilgovan Burn, 2; Mouse, 2; Kirk Burn, 2; Powmillon, 3; Swinstie Burn and Ditch at Cleland, 1 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,	15
,, ,,	18	Broomside Colliery,	30
		Broomside Colliery Pit Water,	5
,, ,,	—	North Motherwell Colliery,	12
,, ,,	—	Kenmuirhill Colliery,	3
,, ,,	—	Priory Colliery,	24
		Priory Colliery Pit Water,	4
River Clyde,	2	Bothwell Castle Colliery,	4
and Bothwell Castle Ditch,	1		
River Clyde,	1	Ferniegair Colliery,	—
and Ferniegair Ditch,	—	Ferniegair Colliery Pit Water,	51
River Clyde,	3	Parkhead Colliery,	1
and Parkhead Inundation,	1		

Streams.	No. of Samples.	Affected by	No. of Samples.
River Mouse,	22	Wilsontown Colliery,	10
		,, ,, Pit Water,	5
		,, Home Seat Level,	1
River Almond,	11	Muiracre Colliery,	9
,, ,,	16	Hassockrigg Colliery,	12
and Hassockrigg Ditch,	—	,, Pit Water,	8
River Almond,	12	Baton Colliery,	11
and Curry Burn,	6		
North Calder,	3	Glengowan Print Works,	5
,, ,,	18	Caldercruix Paper Mills,	32
,, ,,	7	Moffat Paper Mills,	9
,, ,,	26	Stepends Colliery,	54
,, ,,	—	Gartness Colliery,	1
,, ,,	—	Browniesidе Colliery,	3
,, ,,	13	Rosehall Colliery,	17
South Calder,	14	Shotts Iron Works Washer,	5
,, ,,	3	Carfin Colliery,	4
,, ,,	12	Glenclelland Colliery,	5
		,, ,, Pit Water,	4
,, ,,	22	Westwood Colliery,	5
and Hill Glen Burn,	37	,, ,, Pit Water,	4
South Calder,	6	Kingshill Colliery,	36
and Kingshill Ditch,	61		
Auchter Water,	4	Royal George Colliery,	3
,, ,,	1	Coltness Iron Works,	1
,, ,,	3	Morningside Clay Works,	2
Barbauchlaw Burn,	28	Dewshill Colliery,	22
,, ,,	4	Westrigg Colliery,	3
Blind Burn,	3	Stane Colliery,	9
Bothlin Burn,	24	Auchengeich By-Product Plant,	12
		Auchengeich Colliery,	13
Brown Burn,	3	Monkland Colliery,	—
Butter Burn,	23	Cadzow Colliery,	22
and Meikle Burn,	16		
Car Syke,	5	Milnwood Colliery,	7
and Milnwood Ditch,	16		
Coal Burn,	17	Dalquhandy Colliery,	6
,, ,,	2	Comac Oil Works,	1
Dalserf Burn,	—	Broomfield Colliery,	10
and Broomfield Ditch,	5		
Divoty,	1	Quarter Colliery,	4
and Quarter Burn,	4		
Garrion Burn,	4	Castlehill Colliery,	3
		,, ,, Pit Water,	1
,, ,,	—	Gold's Tile Works,	1
,, ,,	7	Shawfield Colliery,	6
and Brownlie Ditch,	8		
Gateside Burn,	2	Gateside Colliery,	6
Glenboig Burn,	19	Bussey Coal Distillation Co.,	22
,, ,,	—	Star Clay Works,	2

Streams.	No. of Samples.	Affected by	No. of Samples.
Glengonnar Water,	1	Leadhills Mines,	1
Howe Burn,	10	Barblues Colliery,	11
Douglas Water,	6	Douglas West Colliery,	4
and Kennel Burn,	12	,, ,, Pit Water,	5
Lingore Burn,	13	Knowton Colliery,	8
		,, Pit Water,	5
Mill Burn,	1	Swinhill Colliery,	—
,, ,,	13	Cornsilloch Colliery,	13
and Cornsilloch Ditch,	27	,, ,, Pit Water,	9
Mollin Burn,	5	Bedlay Colliery,	—
Luggie Water,	1	,, ,,	—
Muir Burn,	2	Auchlochan Colliery,	7
,, ,,	20	Auchlochan No. 9 Colliery,	10
		,, ,, Pit Water,	11
Myers Burn,	1	Uddingston Gas Works,	—
Newton Burn,	1	Newton Colliery,	7
River Nethan,	—	Lesmahagow Creamery,	1
Park Burn,	10	Blantyre No. 1 ,,	10
,, ,,	1	Greenfield Colliery,	2
,, ,,	1	Earnock Colliery,	—
Pow Burn,	15	Viewpark Colliery,	32
,, ,,	3	Bothwell Park Colliery,	5
Ravel Burn,	23	Bredisholm Colliery,	—
,, ,,	9	Tannochside Colliery,	1
and Tannochside Ditch,	3		
Rumbling Syke,	2	Excelsior Iron Works,	—
and Dalziel Burn,	3		
Shirrel Burn,	17	Holytown Colliery,	5
and Holytown Ditch,	14		
Shotts Burn,	53	Hirst Colliery,	27
Spittal Burn,	15	Loanend Colliery,	3
,, ,,	19	Bardykes Colliery,	3
Scion Burn,	1	Richmond Park Laundry,	—
Tillan Burn,	—	Omoa Knackery,	1
Whinney Burn,	3	Excelsior Iron Works,	1
Dykehead Ditch,	3	Dykehead Colliery,	1
Hattonrig Ditch,	3	Hattonrig Colliery,	—
Thankerton Ditch,	9	Thankerton Colliery,	3
East Parkhead Ditch,	16	East Parkhead Colliery,	7
Woodhall Ditch,	2	Woodhall Colliery,	—
Ross Inundation,	2	Ross Colliery,	1
Nellfield Ditch,	4	Nellfield Guano Works,	—
Molindinar,	—	Stepps Colliery,	1

Water Supplies.

46 samples of domestic water were analysed, 11 being from public supplies and 35 from private sources.

The *public water supplies* examined were :—The Middle Ward supply to Dalzell House (Hot and Cold), Glenmavis, and at Strutherhill Filters. Ponfeigh supply, 2; Crawford supply, 2; Burgh of Hamilton Kype supply, Carnwath supply, and Carstairs Junction supply, 1 sample each.

The *private supplies* examined were :—Priestgill, Avondale, 5; Pleasance, Kirkfieldbank, 3; Fairholm, Larkhall, 3; Easthills, Dunsyre, 3; North Myvot, Annathill, 2; Kittymuir, Stonehouse, 2; Boghead, Hamilton, 2; High Cross, Carluke, 2; High Townhead, Kirkmuirhill; West Myvot, Annathill; West Nerston, East Kilbride; Carnwath Mill: Mavis Mill, Cambuslang; Windmill, Westburn, Cambuslang; Mayflatt, Quarter; Robiesland, Lanark; Spring at Elvanfoot Farm; Hurl Burn, Elvanfoot; Adamswell, Mollinsburn; Ryeland Cottage, Avondale; and Little Kype, Avondale, 1 sample each.

Foods and Drugs.

1,337 samples were examined, consisting of the following :—

	No. Examined.	No. not Genuine.
Sweet Milk, ...	952	44
Mince, ...	262	39
Whisky, ...	50	—
Barley, ...	31	—
Sausage Meat, ...	13	—
Butter, ...	12	2
Cream, ...	3	—
Margarine, ...	3	—
Sugar, ...	2	—
Skimmed Milk, ...	1	—
Sauce, ...	1	—
Magnesia, ...	1	—
Seidlitz Powder, ...	1	—
Lard, ...	1	—
Ice Cream Powder, ...	1	—
Tartaric Acid, ...	1	—
Rice, ...	1	—
Egg Substitute, ...	1	—

Milk of Hygienic Quality.

232 samples of milk were examined, consisting of the following grades :—

Certified, ...	77
Grade A. (T. T.), ...	135
Grade A., ...	15
Pasteurised, ...	5

23 of these samples did not contain the required amount of butter fat and 1 was deficient in solids not fat.

Special Samples.

Total, 4,360 samples.

Milk from individual cows, 103 ; samples of milk from Sanitary Inspectors, 471 ; Tincture of Iodine, 2 ; Contents of Dog's Stomach for Poisons, 3 ; Gall Stone, 1 ; Distilled Water, 1 ; Silver Nitrate, 1 ; Quin. Hydrochlor, 1 ; and Vin. Ipecac. 1 sample. Special milk investigation, 3,776 samples.

Rivers Pollution Prevention.

SENIOR INSPECTOR, FRANK M'ARTHUR.

The work done during the year is summarised in the following table. One of the Junior Inspectors was transferred to the Food and Drugs Staff at the end of June, and for the second half of the year the work was carried out by two inspectors :—

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, -	68	70†	702	549	42	168
Lead Washer, - -	1	1	1	1	—	—
Ammonia Works, -	19	11	68	27	2	5
Paper Mills, - -	2	2	33	41	2	26
Print, Dye Works, &c.,	4	1	7	6	—	—
Chemical Work, - -	1	—	—	—	—	—
Sewage Works and Outfalls,	143	79	211	52	9	12‡
Streams, &c., - -	—	184	1,685	1,103	—	—
TOTAL, - - -	—	348	2,707	1,779	55	211

* The samples analysed are dealt with in the Report of the work done in the Chemical Laboratory.

† Includes Washers removed from Register.

‡ Only one pollution is recorded against Westthorn Sewage Works, but the discharge of crude sewage was continuous throughout the year.

Trade Pollutions.

The total mining and manufacturing pollutions detected numbered 199. Of these, 168 were from coal-dross washers, 26 from paper mills, and the remaining 5 from ammonia works. All of these sources of pollution directly discharge their effluents to streams.

COAL-DROSS WASHERS.—There are now 68 coal-dross washers on the register. The washers at the following collieries, all of which with the exception of Swinhill, have been closed down, have been removed, viz. :—Allanton, Bog, Darngavil, Home Farm, Jerviston, Kirkwood, Lochend, New Orbiston, and Swinhill. A new washer

came into operation during the year at Blackhill Colliery, near Lambhill. The drainage outfall is to the River Kelvin, and satisfactory measures to prevent pollution of that stream have been provided. The washers at Douglas Colliery, Rigside, and Muirhead Colliery, West Benhar, have not yet been brought into operation, and one was under construction at the close of the year at the new Cardowan Colliery, Stepps.

702 inspections were made, 549 samples taken, and 168 pollutions, involving 42 collieries, detected.

Pollutions were detected at the following collieries :—

Auchengeich.
Auchlochan.
Auchlochan No. 9.
Barblues.
Bardykes.
Baton.
Blantyre.
*Blantyreferme.
Bothwellpark.
Bothwell Castle.
Broomfield.
*Broomside.
*Cadzow.
*Cornsilloch.
Dalquhandy.
*Dewshill.
*Douglas Castle.
*East Parkhead.
Ferniegair.
Glencleland.
*Hassockrigg.
Hattonrig.
Hirstrigg.
*Holytown.
*Kenmuirhill.
*Kingshill.
*Knowton.
Loanend.
Milnwood.
Monkland.
Newton.
Priory.
Quarter.
*Rosehall.
*Shotts Iron Works.
*Stepends.
Thankerton.
*Viewpark.
*Westwood.
Wilsontown.
Woodhall.

* Specially reported to the County Clerk.

With regard to the collieries at which serious pollution occurred, and on which reports were forwarded to the County Clerk, the following notes might be made :—

Blantyreferme Colliery, Uddingston.—As a result of the condition in which the preventive measures at this colliery were found, and of gross pollution detected on three Saturday afternoons in September and October, a special report, dealing with these conditions and the

whole record of the colliery in regard to pollution of the River Clyde, was transmitted to the County Clerk. This report showed, so far as the preventive measures were concerned, that, over a long period of years, apart from the question of their inadequacy, methods had been adopted by which the washings were intermittently discharged direct to the River Clyde, as a result of which the river was grossly polluted. These methods rendered the actual detection of pollution very difficult. On receipt of the special report referred to, the County Clerk communicated with the owners, pointing out that, in the circumstances disclosed, it might be necessary to take action to enforce the provisions of the Rivers Pollution Prevention Acts, and that it would probably enable the County Council to consider the matter in a more favourable light if they could be assured that, within a period of three weeks, from 31st October, the preventive measures had been put into a condition satisfactory to the Medical Officer of Health. Following on this communication the owners asked for a copy of the report, and a statement containing summarised extracts thereof was forwarded, but up to the end of the year no further communication had been received from them.

Broomside Colliery, Motherwell.—A new coal-dross washer, which had been constructed to replace a very old washer, was brought into operation on 12th April. No proper measures to prevent pollution of the River Clyde had been provided for the new washer, and serious pollution occurred. Reports were submitted to the County Clerk, and complaint was made to the owners, who took certain preventive measures. These consisted of intermittently discharging the washings from the silt-recovery tank to a pond on the refuse bing and conveying surface drainage through a sump, several small chambers and a small settling pond, all on the outfall drain, to the River Clyde. Inspection showed the existence of a valve on the silt-recovery tank washings pipe, which could be operated so as to discharge the washings into the outfall drain to the river. Objection was taken to this arrangement, and the valve was ultimately removed. Reports of the recurrence of pollution were, however, submitted in the month of October. On 4th October, slight pollution was observed, the filtrate from the bing pond being unsatisfactory, probably on account of the open nature of the debris of which the pond is formed. On 15th October, serious pollution was occurring, due to the pond or ponds on the bing being silted up, and the washings flowing direct to the River Clyde outfall. On subsequent dates, viz.:—23rd and 30th October, 13th and 27th November, and 19th December, serious pollution was observed, the only preventive measures in operation during the period covered by these dates being the small ground

surface ponds, which are capable of dealing with surface drainage only. The matter was therefore again formally taken up with the owners by the County Clerk, first on 19th October, and subsequently, and in a letter, dated 11th December, they suggested that a meeting on the ground might be arranged to go fully into the question. Accordingly, the County Medical Officer met the owners' agent on 19th December, when it was agreed that new additional preventive measures were necessary, the owners' agent promising to carefully consider the matter with a view to adopting such measures.

Cadzow Colliery, Hamilton.—With regard to the question of the institution of legal proceedings, referred to in the report for the preceding year, in respect of pollution of the Meikle Burn and Butter Burn, which the owners denied, approval of the Public Health Committee having been obtained to this course, application was made to the Department of Health for consent to take proceedings. As the Burgh of Hamilton was involved, the Butter Burn flowing through their area, this local authority was communicated with, and an understanding come to that they would co-operate with the County Authorities in any action taken. In pursuance of the usual procedure in connection with such applications, the Chief Engineer of the Department of Health, accompanied by the Chairman of the Public Health Committee and officials, inspected the colliery and its outfall streams on 21st February, and a communication, dated 22nd May, was received from the Department, stating that they had had under consideration a report by their Chief Engineer in which he expressed his opinion that it appeared the owners of the colliery were not using the best practicable and available means to prevent pollution. He recommended, however, that they be given three months in which to take adequate preventive measures. The Department had concurred in this recommendation and suggested that the County Council should write to the Cadzow Coal Company, Ltd., accordingly, which was done on 7th June. Subsequently there was correspondence between the County Clerk and the Company, who had asked for information as to pollutions which had been detected, and had also raised a question as to the immediate reporting of the detection of pollution to an official of the Company, and also as to the witnessing by a Company's official of the taking of samples of polluting effluent. The Chief Engineer of the Department of Health had also asked for certain detailed information as to the volume of coal-washings effluent to be dealt with, &c., and, in connection with this request, had a meeting with the Company's manager, who, after discussion, expressed his

willingness to furnish all the information desired, an agreed period of six months being given within which to do so. Shortly after that meeting, which took place early in November, it was intimated to the County Clerk that the colliery was changing hands as from 1st December, the new owners being the Bent Colliery Company, Ltd. The proposed action against the Cadzow Coal Company, Ltd., therefore fell.

Cornsilloch Colliery, near Larkhall. — Serious pollution of the Mill Burn and its tributary ditch occurred on 7th February, due to the washings flowing through the bing settling pond practically direct to the outlet box, the silt being almost on a level with the top of the box. The outlet was heightened and cause for complaint removed. Subsequently it was found that the life of the settling pond had been considerably increased by raising the inlet pipe about 4½ feet. The method of disposing of the coal-washings effluent at this colliery was to convey it to an extensive bing settling pond, which, with proper attention, gave fairly satisfactory results, but during the year it was decided to depart from this method of disposal and to deal with the washings in brick-built settling ponds. The construction of these ponds was completed in the month of July. The ponds are in two series, and one series was brought into use on 30th July. The Rivers Inspector had very considerable misgivings as to the success of the new arrangements, having regard to the difficulty and amount of work involved in cleaning out the new ponds, apprehending serious pollution of the outfall ditch and Mill Burn, both of which are sources of water supply for cattle. These fears were well founded, as on 30th August and 11th September serious continuous pollution was observed, due to both series of ponds being silted up and no satisfactory arrangements devised for cleaning the ponds, although certain arrangements for doing so were being made. These included the provision of an electric motor and motor-house, and the laying of a hutch road from the settling ponds up the face of the refuse bing. A small electric pump had also been fitted up, and had been in use, for the purpose of raising the liquid contents of the ponds to the refuse bing, preparatory to their being properly cleaned. A special report was transmitted to the County Clerk, who took the matter up with the owners of the colliery, and they replied on 16th September that the necessary steps were being taken to have cause for complaint removed as soon as possible. Serious pollution was, however, again detected on 23rd October and slight pollution on 6th November. On the former date it was found that the new brick-built settling ponds

had been abandoned, and that the washings were being raised by a pulsometer into a comparatively shallow bing settling pond, from which part of the effluent was discharging direct to the pit-water ditch, causing serious pollution, and another part to another but much smaller bing pond, the effluent from which finally discharged into a water-cooler pond and was thus not a source of pollution. At the same time a third pond, larger than either of the others, was found to be almost completed, it being the intention to use the two main ponds alternately. The question of the prevention of pollution in the future was fully discussed with the manager at this inspection, and a promise given that the additional pond would be completed in less than a fortnight. On inspection being made on 6th November it was found that the third pond referred to had been completed, as promised, and was in operation and that, except for slight surface drainage pollution, cause for complaint had been removed.

Dewshill Colliery, Salsburgh.—Serious pollution occurred at this colliery on 18th January, due to the settling area being silted up. Evidence of previous serious pollution was also observed in the Barbauchlaw Burn. A report was transmitted to the County Clerk. On various dates in March and April slight pollution was occurring, due on two occasions to joints in the pipe which conveys washings to the bing being defective, and on other occasions to an unsatisfactory effluent from the bing settling pond. On 29th October the filtrate from the bing settling pond was also found to be unsatisfactory and a source of continuous pollution of a ditch and the Barbauchlaw Burn. The owners were again communicated with by the County Clerk, as it seemed that new settling accommodation was necessary. Slight pollution was also observed on four dates in November. It was also noted on 25th November that the washings were being discharged on to another portion of the refuse bing, but slight pollution was again observed on 6th and 20th December.

Douglas Castle Colliery.—On inquiries being made on 21st May into a complaint of pollution of the Douglas Water by coal-dross washings and oil it was ascertained that pollution had occurred two days previously (a Sunday), when the silt-recovery tank had been discharged to the settling ponds. Steps were ultimately taken to intercept most of the oil complained of, which is conveyed with the pit water. On 16th September serious pollution, due to a workman discharging coal-dross washings by a pipe from certain settling ponds direct to the small outfall stream, was detected. The Douglas Water was also affected. On complaint being made to the owners through

the County Clerk, they replied that coal washings had not been knowingly passed to the stream by their workman, but that pollution may have been due to a leaking joint in the pipe leading from the upper to the lower settling ponds, and that this had been attended to.

East Parkhead Colliery, Bellshill.—The coal-washings from this colliery had for a good many years been conveyed more or less directly by an outfall ditch to an inundation lying between the colliery and the River Clyde. No exception was taken to this method of disposal until in the preceding year it was observed that the ditch beyond the inundation, on Raith Farm, was being polluted, and that there was also liability to pollution of the River Clyde owing to the fact that the incoming ditch conveying the washings had been diverted from the inundation by the reforming of a channel, so that no settlement of the washings was possible. On complaint being made, settling pond accommodation was provided at the colliery, which then removed cause for serious complaint. Pollution caused, as formerly, by the unsatisfactory effluent from the settling pond, was observed in April and June. Further complaint was therefore made by the County Clerk to the owners on two occasions, as a result of which certain measures were taken to improve the bank of the settling pond by heightening and "blinding" it. These measures appeared to effect an improvement for a time, but pollution not only seriously affected the upper portion of the outfall ditch, but also the lower portion on Raith Farm. These measures were continued, with none too satisfactory results, however, as the outfall ditch, particularly in its upper reaches, was again found to be polluted on four occasions during August and September Another report, dated 7th September, was therefore forwarded to the County Clerk, who made further complaint to the owners. Fortunately, at inspections made on 5th and 18th September, the lower portion of the ditch was only affected to a slight extent, owing to the fact that the water of the ditch was again overflowing to the inundation. Efforts were still, however, being made to improve the effluent as filtering from the settling pond. Again on 17th October, while the upper portion of the ditch was found to be polluted, the lower portion and River Clyde were not affected. The effluent from the settling pond was also better than it had been during the months of August and September, and the work of improving the pond was being continued.

Hassockrigg Colliery, near Shotts.—Pollution was detected at this colliery on six occasions during January, February, and March. On

two occasions pollution was of a serious nature. Thus, on 21st January, the inlet to the settling pond was silted up, the washings flowing into a silted-up old pond and thence to the Almond Head-stream, causing gross pollution. Again, on 4th March, the whole of the washings were discharging direct to the stream, due to the frozen condition of the settling ponds, again causing gross pollution. The former pollution was reported to the County Clerk. Slight pollution was also observed on four occasions as a result of minor defects in the preventive measures. The serious pollution of the Almond referred to was verbally complained of by the farmer at Easter Baton Farm. Satisfactory remedial measures were provided. These comprised the collection of the washings in a new brick-built sump and an electric pump for discharging the whole of the washings to ponds on the bing. No further complaint was received.

Holytown Colliery. — Pollution was actually detected on three occasions during April and May, on two of which pollution was of a serious nature. Serious pollution observed on 9th April was caused by the washings collected in the settling area being run off in a polluting condition by the drawing of a plug in the outfall pipe. The outfall ditch and Shirrel Burn were also found to be polluted by oil on that date. On 8th May, about 7 p.m., the South Calder Water, above Rosehall, and also the Shirrel Burn were found to be seriously polluted, the source of which was definitely found on the following day to have been Holytown Colliery. On this occasion, pollution, although not of a serious nature, was also occurring, the surface drainage being found discharging to the outfall ditch and not to the settling area because of the fact that the channel conveying this drainage had been deliberately blocked up, evidently to divert the washings from the settling area, which was being cleaned out. It was also clear that the serious pollution of the previous night had been due to the contents of the silt-recovery tank being discharged direct to the outfall ditch in similar circumstances. In the forenoon of 20th May, also, serious pollution, but of short duration, was observed, due to the silt-recovery tank overflowing to the outfall ditch during a temporary stoppage of the washer. These pollutions were all more or less preventable, and their occurrence indicated laxity on the part of the management. Measures were taken which removed cause for complaint.

Kenmuirhill Colliery, near Carmyle.—At an inspection made at this colliery on 11th October, although the washer was not in operation, as it was undergoing repair, it was noted that the settling area was

so defective as to be quite useless. The owners' general manager was informed of the circumstances, and a promise was given that the settling area would be made satisfactory before washing was begun again. At inspections made on 24th October, when serious pollution of the River Clyde was occurring in the forenoon, and much more serious pollution in the late afternoon, it was ascertained that the washer had restarted two days before, and that the settling area had been banked up as promised. The bank had, however, already given way so as to render the settling area again entirely non-effective. In a communication, dated 15th November, to the County Clerk, the owners stated that the washer was again not in operation, but that before resumption of washing, arrangements would be made to avoid cause for complaint. Washing had not, however, been resumed at the end of the year.

Kingshill Colliery, near Newmains.—Pollution was reported as occurring at this colliery on fourteen occasions during the year. On nine of these occasions pollution was of a more or less slight nature, due to minor defects, but on the other five occasions pollution was of a serious description. With regard to the serious pollutions, on 14th February most of the washings were discharging direct to the outfall ditch on account of the inlet channel to the settling ponds being frozen. On the following day it was found that the washings had been diverted through the refuse bing, but with the same serious pollution resulting. On 19th April serious pollution was due to a large break in the bank of one of the settling ponds, as a result of which the washings were discharging almost direct to the outfall ditch. There was also evidence of previous serious pollution in this ditch, and the settling ponds were all found to be silted up. On 2nd September the settling ponds were again found in this condition. After complaint being made as to this pollution it was found on 20th September that two temporary ponds had been constructed, and that also the construction of concrete settling ponds was proceeding. With regard to serious pollution which occurred on 4th November, prior to the time of inspection, this was found to have been due to the banks of the settling ponds having given way. On 21st November all the settling ponds were again found to be silted up, but it was found that a commencement had been made with the construction of a new earth pond, and that the construction of concrete settling ponds, begun in the month of August, was still proceeding. This was completed in the beginning of December, although the ponds had not

been brought into use at the end of the year, the new earth pond, which was found in use on 3rd and 12th December, having up till then been satisfactory.

It might be here observed that the effluent from the pithead baths although it is passed through a small tank before discharge to the outfall ditch, has been noted to be a source of slight pollution.

Knowton Colliery, near Shotts.—Serious pollution detected at this colliery on 13th August was due to the whole of the washings discharging direct to the Lingore Burn. It was also found that the pump for throwing the washings to a pond on the bing was defective, and that a small pond dealing with surface drainage was silted up. At an inspection made on 26th August the pump was found to be in operation, and, although the small surface drainage pond had not been cleaned out, there was no ground for serious complaint then, nor at further inspections made up to the end of the year.

Rosehall Colliery, Bellshill.—The pollution observed at this colliery on 27th March was probably due to an overflow from the pond in which the washings are collected for pumping to the bing. Previously, however, on the morning of Sunday, 24th March, the North Calder Water near Bredisholm was found to be polluted by coal-dross washings, the source of which was traced to the outfall from Rosehall Colliery. It was also found at this inspection that the bed of the North Calder Water for a long distance below the Rosehall outfall was in a deplorable condition from deposits of coal silt as a result of previous gross pollution. Full inquiry was made into the state of the preventive measures and a report thereon forwarded to the County Clerk. Measures were taken to prevent the recurrence of gross pollution, but it was found necessary to again complain through the County Clerk of pollution observed on 31st May, and which was due to a very large flow of drainage from hoppers, &c., not being conveyed to the proper pond for pumping to the bing on account of the defective condition of the collecting channel. No further pollution was detected from an "emergency" outlet from the silt-recovery tank, which had previously been misused and was probably the source of the previous gross pollution of the North Calder Water complained of. This outlet has been done away with, and coincident with the installation of a new plant for the washing of silt or "duff," further improvements were carried out in connection with the collection and disposal of the coal-dross washings and "duff" washing plant effluents.

Shotts Iron Works Colliery, Shotts.—Pollution was detected on four dates early in the year, viz., 28th January, 7th and 19th February, and 2nd April, due to the settling ponds being silted up and part of the washings overflowing to a drain which has an outlet to the South Calder Water. On the first of these dates it was also ascertained that the steam dredger which operates in the ponds removing the silt had not been in operation for over a week. The outlet to the South Calder Water referred to was reconstructed and heightened. Pollution of a serious nature was again detected on 23rd December, however, due to the fact that the settling ponds were again silted up and the washings discharging almost direct to the stream. The dredger was also found not to be in operation, as it had broken down. At a later inspection, after formal complaint had been made, the dredger was found to be in operation and no pollution occurring.

Stepends Colliery, Plains.—With regard to the action taken in the preceding year in connection with the proposed institution of legal proceedings against the owners of this colliery in respect of pollution of the North Calder Water, it may be recalled that after inspection by the Chief Engineer of the Department of Health, the owners were given a period of three months, which expired on 30th August, 1928, within which to make the preventive measures satisfactory, and that it was found towards the end of September, that, while certain improvements had been effected and pollution for the time being stopped, there was no certainty that cause for complaint had been permanently removed. On the Department inquiring as to whether, in the circumstances, the County Council's application for consent to the institution of proceedings might be treated as withdrawn, it was considered that unless other preventive measures than those in existence were provided, pollution would be liable to occur at any time, and that therefore the application should not be withdrawn. During the months of January, February, and March of the year now reported on special inspections were made and pollution detected on many occasions, and renewed application to take proceedings was therefore made. In connection therewith the Chief Engineer of the Department of Health, accompanied by the Chairman of the Public Health Committee and officials, again inspected the colliery on 21st February, and on 22nd May the Department conveyed their consent to the institution of proceedings. On the following day, therefore, the County Clerk sent written notice to the

Ardenrigg Coal Company, Ltd., of the intention of the County Council to take proceedings against them. On receipt of this notice the Company wrote asking for an opportunity of being heard against such intention, and representatives of the Company appeared before a meeting of the Public Health Committee, held on 5th June. Having been heard as to certain further remedial measures (brick-built settling ponds) which they proposed to adopt, the Company were given a period of fourteen days within which to submit plans and specifications showing the proposals. These were sent on 18th June, and were considered by the County Medical Officer, a copy of his report thereon, together with the plans and specifications, being forwarded to the Department of Health for their information and observations. Thereafter the Chief Engineer of the Department intimated that, before making any observations on the proposals, he would require certain information as to effluents similar to that which he had asked for in the case of Cadzow Colliery. The required information was duly obtained and transmitted on 29th August. The views of the Department had not, however, been received up to the close of the year.

Viewpark Colliery, Uddingston.—As reported in recently preceding years, the proper disposal of the washings has, owing to the situation of the colliery and disposition of the refuse bings, become a matter of increasing difficulty. During the year it was considered necessary, owing to the increasing distance which the washings have to be conveyed for disposal, to provide an additional pulsometer on the bing together with a collecting pond, so as to make two "throws"; that is to say the washings are discharged into a primary collecting pond on the ground surface, pumped to a secondary pond on the bing, and thence pumped from this pond to various settling ponds situated on the north side of the Edinburgh highway. These arrangements are rather complicated, and if the most careful attention is not paid to the operating of the pumps, and if they, as well as the pipe lines, are not kept constantly in good order, there is liability to serious intermittent pollution of the Pow Burn occurring, this liability being increased by the fact that the washer is in operation practically day and night. With regard to pollutions observed during the year, on 11th April serious pollution occurred due to surface washings, which were not being conveyed to the primary collecting pond for pumping to the bing,

discharging by an upper pit-water outfall to the Pow Burn on account of the drain leading to the collecting pond being defective. This defect was remedied. On 16th April, pollution was caused by an overflow of washings from the secondary collecting pond discharging down the side of the bing and thence to the Pow Burn. On 28th May, serious pollution was detected as a result of the primary collecting pond being silted up so that the pulsometer could not operate, the washings thus overflowing to the Pow Burn. These conditions were formally complained of. On Saturday afternoon, 17th August, serious pollution was again detected. On this occasion it was found that, while the washings were being properly pumped from the primary collecting pond to the secondary collecting pond, the washings were not being pumped from this pond to the settling ponds, but were being bye-passed to the Pow Burn. Arrangements were therefore made, after complaint, for a man to attend to the pulsometer in the secondary collecting pond during the time pumping from the primary pond is in progress. This ensured that the washings were conveyed to the settling ponds and not discharged to the Pow Burn. At an inspection made on the following Saturday afternoon this arrangement was found to be in operation, the man in charge of the pulsometer at the secondary collecting pond having instructions to remain on duty until pumping from the primary collecting pond is completed, which is as a rule near midnight. Towards the end of the year the condition of the Pow Burn below the colliery outfall again indicated the occurrence of serious intermittent pollution, and on 27th and 29th November the primary collecting pond was found to be overflowing. On the former date pollution was observed at 9 p.m. On 5th December very serious, although accidental, pollution occurred in the following circumstances. During inspection of the preventive measures by the Rivers Inspector and manager it was found, when a bing settling pond situated on the north side of the Edinburgh Road (to which the washings were being pumped) was reached, that the side of this pond had given way a few minutes previously, and that the highway was being seriously flooded. In addition, the washings ultimately reached the Pow Burn, causing very serious pollution. Pumping into the collapsed pond was therefore at once stopped, and arrangements made to connect up another recently formed pond with the washings pipe column. At this inspection it was also noted that the washings pipe from the primary to the secondary collecting pond was defective at one of its joints,

the consequent leakage also being a source of pollution. In view, therefore, of the frequent occurrence of pollution, a further special report was transmitted to the County Clerk, in which it was pointed out that, if the existing arrangements for preventing pollution were to be continued, it was absolutely essential that, in addition to the various settling ponds on the bing, satisfactory settling ponds or areas (*a*) on the ground surface, to deal with overflow from the primary collecting pond, and (*b*) on the bing, to deal with overflow from the secondary collecting pond or washings pumped from the primary collecting pond, but not taken into the secondary collecting pond, should be provided. It was also pointed out that such ponds or areas already existed, but that they were silted up and quite non-effective. Correspondence with the owners on the subject of improved preventive measures continued into the current year.

Westwood Colliery, near Newmains. — Pollution was detected on many occasions during the year—on most of which, however, not of a serious nature at the time of inspection. On several occasions pollution was of a serious nature, affecting not only the Hill Glen Burn but the South Calder Water. These pollutions were invariably due to the inadequacy or unsatisfactory condition of certain ground-surface settling ponds. Thus, on 13th February, serious pollution was due to these ponds being silted up, and also to the bank of one of them being defective. Again, on 26th March, serious pollution appeared to have been due to the discharge to these ponds of a large volume of washings, consequent on a breakdown in the washer. The same thing occurred on 28th August, and on 30th September the Hill Glen Burn was found to be polluted on account of coal silt deposited on the bank of the stream from previous pollution being washed down during heavy rain.

In addition to the foregoing sources of pollution, regarding which reports were transmitted to the County Clerk, reference might also be made to the action taken in connection with the following collieries, which were sources of more or less serious pollution during the year or in previous years, and at which remedial measures were provided without formal complaint being necessary :—

Auchengeich Colliery, near Chryston.—Inspections of the Bothlin Burn below this colliery made at the end of October showed evidence of previous gross pollution by coal-dross washings, and, as the condition of the stream indicated the occurrence of intermittent pollution, special observations were made, with the result that on 2nd and 30th November, both Saturdays, the actual occurrence of

serious pollution was detected. Full inquiries were therefore made, and the matter taken up with the manager of the colliery, when it was ascertained that the preventive measures were, and had been for some considerable period, in a most unsatisfactory condition — three large circular tanks into which the washings from the silt-recovery tank are pumped from time to time, as well as a brick-built settling pond which receives overflow discharges from these tanks as well as surface drainage, being silted up, and utterly useless as measures to prevent pollution. It was also found that no regard was being paid to the proper operation of certain plugs at the outlet from the settling pond. As a result of these conditions, when the silt-recovery tank had been pumped into one of the circular settling tanks on the two Saturdays on which serious pollution was detected, the washings simply overflowed unpurified to the silted-up settling pond (with its outlets also open) to the Bothlin Burn, causing serious pollution. As noted, the matter was taken up with the colliery manager; the settling pond was at once partially cleaned out, and the work of cleaning out the circular tanks commenced. Instructions were also given by the manager as to the more careful operation of the plugs at the outlet from the settling pond. The cleaning of the circular tanks was proceeded with during December, the work being let out to contract.

Bardykes Colliery, Blantyre.—Early in May complaint was made by a farmer of alleged intermittent pollution of the Rotten Calder Water from Bardykes Colliery. Although very careful observations were made over a considerable period, no actual pollution was detected, and no fault could be found with the condition of the preventive measures, although there was undoubted evidence of previous serious pollution in the tributary stream, the Spittal Burn, both above and below Bardykes Colliery. On 15th October a telegram was received from the complainer, to the effect that two days before (a Sunday) the Rotten Calder Water had been polluted by coal-dross washings. Full inquiry was at once made into this complaint, the various sources of pollution affecting the Spittal Burn and Rotten Calder Water being inspected, without tracing anything which could account for the alleged pollution. However, at Bardykes Colliery, on the following Tuesday and Wednesday, pollution of the Spittal Burn was occurring, due to the fact that the washings discharging to the extensive settling area were overflowing at a manhole situated in

the area, and connected with the Spittal Burn. It was also found that the pit-water discharge pipe was defective, and that almost the whole of the large flow of clean pit water was flowing into the coal-dross washings settling area, thus very considerably increasing the polluting overflow at the manhole referred to. The circumstances were at once reported to the colliery manager, and steps were taken without delay to heighten the manhole and to repair the pit water pipe, so as to exclude the pit water from the settling area. These measures satisfactorily prevented further pollution.

Blantyre Colliery, High Blantyre. — Inspections made at this colliery during November showed that continuous pollution of the Park Burn was occurring, due to the unsatisfactory effluent from a surface-drainage settling pond, and that also serious intermittent pollution was occurring when the silt-recovery tank was pumped to a settling pond on the bing, due to the unsatisfactory condition of this pond. The latter fact was ascertained after a series of special observations. The matter was therefore discussed with the colliery management, and effective measures were at once taken to prevent cause for further complaint. These included arrangements for diverting the silt-recovery tank washings to a new bing settling pond.

Bothwellpark Colliery.—Late on Saturday afternoon, 7th September, the Pow Burn was found to be very seriously polluted by coal-dross washings from this colliery. Inspection and subsequent inquiries showed that pollution had been due to the contents of the silt-recovery tank flowing to the stream in unusual circumstances. The washings in this tank are normally pumped to a very satisfactory bing pond. The colliery had been shut down for fourteen months and reopened on 12th August, and it was found that, probably through gross carelessness, the outlet of the pipe which delivers the washings into the pond had been buried by washer dirt deposits, so that when the valve on the pipe at the silt-recovery tank had been opened for the purpose of pumping the washings to the pond, there being no outlet, a joint or joints of the pipe were forced, the whole of the tank washings flowing over the ground surface to an outfall drain to the Pow Burn. As the silt-recovery tank is understood to be pumped several times a week, gross pollution had probably occurred on a good many occasions after the restart of the colliery. On complaint being made to the manager, the joints of the pipe were

at once repaired, where necessary, and several lengths of piping added, so as to give an outlet into the pond.

Broomfield Colliery, Netherburn.—At an inspection made at this colliery in the forenoon of 14th November, it was observed that, while no pollution was occurring at the time of inspection, the bing settling pond was unsatisfactory, and that there was evidence of previous pollution in the ditches to which the colliery effluents discharge. It was, therefore, considered probable that serious pollution occurred when the silt-recovery tank washings are pumped to the settling pond referred to, which is done daily. Accordingly a further inspection was made in the afternoon, to coincide with the pumping of the silt-recovery tank, when, as anticipated, very serious pollution occurred. The matter was therefore taken up on the following day with the colliery management, when, after discussion, it was agreed that arrangements would at once be made to divert the washings to a new bing pond, formed of washer dirt and of great capacity, which had been ready to be brought into use for some years. These arrangements were duly carried out that afternoon, and cause for complaint entirely removed.

Hirstrigg Colliery, Salsburgh.—Complaints continue to be received from the Airdrie, Coatbridge, and District Water Board, alleging pollution by discharges from this colliery of the Shotts Burn, which is a feeder of the Board's Roughrigg Reservoir. On 17th January such complaint was made, and on inquiries being made on the following day it was ascertained that pollution had taken place on account of a ground settling pond being silted up. Measures were at once taken to prevent further pollution. Two further complaints, one dated 15th October and the other 1st November, were received. With regard to the first complaint, an inspection had been made on 14th October, when the effluent was found to be slightly turbid, and also that a settling pond required cleaning. Another inspection was made on 16th October, when similar conditions were found. The pond referred to was, however, then being cleaned out. The construction of a large washer-dirt pond, which had also been going on for some time, was also found to be nearing completion. With regard to the second complaint, which referred to alleged pollution on 31st October, inquiries made on 4th November elicited the information that an apparatus for spraying the coal with water had been brought into

operation on 30th October, and that the effluent produced by the process, which is of a seriously polluting nature, had probably at first been a source of pollution of the Shotts Burn head-stream. On the day of inspection, however, this effluent was being diverted into the refuse bing, and no pollution was occurring. It was also learned that a tank was being obtained to settle the effluent, and that it was also intended to discharge the effluent from this tank to a new pond. Later (25th November) the spray effluent was found discharging on to rough ground, not to the bing, but no pollution was occurring. These arrangements were still in operation at the end of December, without apparently giving rise to complaint.

Priory Colliery, Blantyre.—Pollution affecting the River Clyde, due to surface drainage not being taken into the settling ponds but discharging to the river by a pit-water outfall, was the subject of special inquiries in the months of September and October. This matter was dealt with in the preceding year, but the measures then taken to prevent cause for complaint were not permanently satisfactory. Further measures were, however, taken, which so far as has been ascertained have proved satisfactory, although there is reason to believe that certain intermittent polluting discharges have not yet been dealt with, and the matter in this respect is continued.

Lead Washer. — The County Medical Officer inspected this source of pollution on 11th February. The effluent from the settling ponds was having little or no effect on the Glengonnar Water at the time of inspection. It was also ascertained that only a few tons of lead per week were being dealt with. The mines were not in operation for almost the whole of the year.

Ammonia Works. — The number of inspections made during the year was 68. Pollutions were recorded as occurring at the new works of the Bussey Coal Distillation Company, Ltd., situated at Glenboig, which were a source of serious pollution of the Glenboig or Bothlin Burn, and at the small experimental low-temperature carbonisation plant (known as Comac Oil Works), situated above Coalburn. Pollution of the Pow Burn and River Clyde occurs, as formerly, from Uddingston and Cambuslang Gas Works respectively. Several of the blast furnaces in the Coatbridge area continue to be inoperative.

Bussey Works, Glenboig.—A complaint, dated 14th August, was received from a farmer, alleging serious pollution of the Bothlin Burn by, in addition to sewage, discharges from the low-temperature carbonisation plant of the Bussey Coal Distillation Company, Ltd., which was formally opened on 19th July. Inquiries and inspections were made, and intermittent pollution detected, due to discharges of effluent containing phenoloid substances. A considerable number of samples was taken and analysed. In April, 1928, just before the construction of these works was commenced, written inquiry was made as to the likelihood of pollution arising from the new works, and, if so, how it was intended to purify and dispose of polluting effluent. To this inquiry a reply was received to the effect that all necessary steps for the purification of any polluting effluent which might arise would be taken. A report of the inspections made, together with the analyses of samples taken, were forwarded to the County Clerk, who communicated with the owners of the works, and he received a reply, dated 9th October, to the effect that the complaint of pollution had been placed before the directors, and that a scheme for dealing with the problem was in course of preparation. This scheme had not been carried out by the end of the year, about which time the works were closed down to allow of extension or modification; but it was learned on inquiry that alternative schemes, *i.e.*, disposal in disused underground workings and evaporation, were under consideration. In addition to the farmer's complaint referred to, two other complaints with regard to pollution affecting the Bothlin Burn nearer Gartcosh were received. One of these was also from a farmer, and the other was made verbally on behalf of certain works' proprietors. Inquiries into these complaints suggested that to some extent the source of the pollution complained of in these cases was also the Bussey Works.

Comac Oil Works. — Serious pollution of the Coal Burn was observed on 4th June, owing to the spent liquor flowing direct to that stream. This, on inquiry, was ascertained to be due to the old workings, in which the waste liquor was customarily discharged, having sealed up. On complaint being made, measures were taken to open up the old workings, and when this was done, and the effluent discharged to the workings as formerly, pollution ceased. These works were not in operation during the second half of the year.

Manufactories. — The number of inspections made during the year was 40, nearly all of which were at Caldercruix and Moffat Paper Mills.

Caldercruix Paper Mills.—The following figures show the amounts of suspended solids in parts per 100,000 contained in the samples taken at these mills during the year. The standard for a paper-mill effluent recommended by the Royal Commission on Sewage Disposal is 6 parts per 100,000 :—

Date of Sampling.	Upper Outfall.	Lower Outfall.
11th January, ...	23·0	—
21st ,, ...	12·6	—
31st ,, ...	23·2	—
7th February, ...	19·2	—
14th ,, ...	11·6	21·8
21st ,, ...	13·5	11·8
27th ,, ...	17·6	15·0
14th March, ...	18·4	15·6
21st ,, ...	9·4	15·2
3rd April, ...	20·6	23·8
10th ,, ...	55·8	11·0
18th ,, ...	9·6	14·8
3rd May, ...	15·2	16·6
14th June, ...	16·6	41·8
4th October, ...	102·8	3·9
13th December, ...	18·6	11·6

It was noted at an inspection made on 7th February that a pipe device for drawing off "supernatant" liquid had been placed in the larger settling area. Otherwise there is nothing new to report with regard to the preventive measures at these mills. It might be noted, however, that the Chief Engineer of the Department of Health made an inspection when in the locality for the purpose of inspecting Stepends Colliery.

Samples of effluents taken as discharging from pipes in the large sludge settling area contained the following amounts of suspended solids :—

Date of Sampling.	Upper Pipe.	Lower Pipe.
6th November, ...	19·4	55·6
13th December, ...	17·2	—

Moffat Paper Mills.—The following figures show the amounts of suspended solids, in parts per 100,000, in the samples taken at these mills during the year :—

Date of Sampling.	Suspended Solids.
21st January, ...	7·9
7th February, ...	16·4
14th „	21·7
27th „	18·4
3rd April, ...	11·8
18th „	12·6
14th June, ...	32·2
4th October, ...	35·2
13th December, ...	76·4

Solid Matter Pollution.

No instances of serious pollution or obstruction of streams by solid matter, which could be dealt with under Section 2 of the Rivers Pollution Prevention Act, 1876, were reported during the year, although several complaints were received with regard to the depositing of household or other refuse in streams. These related to the River Nethan at Turfholm, Lesmahagow; the Kirk Burn, Symington; and the River Clyde near Kirkfieldbank, where the specific complaint referred to the depositing of tomato plants in the river above the electric power works. In each of the localities mentioned cautionary notices were posted up in suitable places with a view to deterring the practice of disposing of refuse in this fashion. These had a good effect.

Sewage Pollution and Sewage Disposal.

In connection with sewage pollutions, 211 inspections were made of sewage purification works and outfalls, and 52 samples taken.

Unsatisfactory conditions, resulting in pollution were recorded at the undernoted sewage purification works :—

Purification Works.	Dates of Inspection.	Notes of Inspections.
Allanton Terrace Tank,	23rd April, 30th „	Tank required to be cleaned. Remedied.
Bishopbriggs,	11th March, 27th December,	Discharge of crude sewage by storm overflow.

Purification Works.	Dates of Inspection.	Notes of Inspections.
Carbarns (Wishaw),	20th March,	Crude sewage discharging direct to River Clyde.
Chryston and Muirhead (Bridgend),	15th January,	Filter trays unsatisfactory.
	23rd ,,	Filter trays unsatisfactory and bulk of tank effluent being discharged to Bothlin Burn.
Chryston and Muirhead (Moodiesburn Tank),	19th December,	Crude sewage discharging to stream. Remedied.
Fallside,	11th April,	Crude sewage discharging direct to Pow Burn during tank cleaning.
Lesmahagow,	27th December,	Whole of sewage discharging to River Nethan in a crude state. Remedied.
Stepps,	26th December,	Large flow of tank effluent to Garnkirk Burn.
Westthorn, Tollcross,	During whole of year,	Part of crude sewage discharging direct to River Clyde.

Special Drainage Districts.—*Barony.*—Westthorn Sewage Purification Works, being unable to deal with the whole flow of sewage are still a source of serious pollution of the River Clyde. The question of enlarging the works has been under consideration and has been pressed by the City Authorities, who bear over 80 per cent. of the cost of the works, and a scheme of extension, estimated to cost £9,000, has been approved, subject to a grant to relieve unemployment being obtained. The proposed extensions include:—

(1) Detritus tanks of greater capacity than those in use;

(2) storm water overflow and pipe;

(3) equipment of the third existing tank for treatment of the sewage;

(4) construction of six new settlement tanks;

(5) two additional air lifts;

(6) extension of the power house and addition of one oil engine and air compressor unit.

Bishopbriggs and Auchinairn.—Crude sewage pollution of the Bishopbriggs Burn still occurs at these works, especially in wet weather, when there is a large overflow of untreated sewage to the stream. There is reason to believe that the excess flow is due to surface or burn water getting into the sewer. This has been under investigation, but the difficulty has not yet been got over. The normal treated effluent was found at inspections made during the year to be satisfactory, and the aerating tanks are now kept in operation during the whole twenty-four hours. On 12th February an eight-hours' average sampling was carried out during keen frost. The Bishopbriggs Burn was also sampled above and below the works. The Chemist's report on the results of anaylses of the effluent and stream samples was as follows:—

* * * * * * *

(2) That the amount of purification effected as measured by the oxygen absorbed in four hours in the average "all effluent" sample amounts to 81 per cent. The effluent is also within the Royal Commission limit for oxygen absorbed in five days, but the amount of suspended solids is slightly above that limit;

(3) that the stream above the outfall is "clean" within the Royal Commission standard, and the effect of the discharge of effluent is sufficient to raise the water below the outfall to slightly above the limit of impurity in streams receiving sewage effluents.

A copy of the results was forwarded to the Lower Ward Engineers for their information.

In connection with the difficulty experienced in relation to intermittent sludge contamination of the effluent, a report was submitted by the Engineers stating that since the sewage works were constructed there had been improvements in the method of separating the sludge from the clear effluent. At Bishopbriggs the effluent is collected in pockets placed at each of the four corners of the six agitation tanks, but experience had shown that it was desirable to dispense with these pockets and separate the sludge from the clear effluent in separate tanks, the most recent works of the Ames Crosta mechanical-agitation type being constructed on these lines. The Engineers estimated the cost of two sludge tanks, together with the necessary plant, at £4,000. They also considered that if the suggested improvements were carried out the works would not only be more efficient, but that their capacity would be increased by 100,000

gallons, which would make the works sufficient for a population of 9,750. It was agreed that the proposed works should be carried out, subject to a Government grant of £5,000 being obtained.

Bothwell. — Pollution of the Pow Burn occurred during the ten days in April on which the sewage from Fallside Sewage Purification Works was discharged direct to the stream to allow of the tank being cleaned.

Bothwellpark. — A requisition from ratepayers in Bothwellpark Rows, calling upon the District Committee to form the area into a Special Drainage District, was received. This area was one of those, and the first in order of urgency, which was specially considered by the District Committee in 1927 and in previous years as one requiring proper drainage facilities. After consideration, the District Committee on 28th June formed the district and the construction of the necessary sewers to convey the sewage from Bothwellpark Rows into one of the main outfall sewers from Uddingston Special Drainage District, into which is already discharged sewage from Aitkenhead and Tannochside and Bothwell Special Drainage Districts, was commenced. The new district includes the housing schemes at Viewpark and Fallside, which were already drained to the Uddingston sewer referred to. This main outfall sewer discharges direct to the River Clyde at Haughhead Bridge. The estimated cost of the necessary sewers, including those already constructed, to complete the sewerage system for the new district was £23,500, this estimate, of course, not including anything in respect of sewage purification. The sewage of Bothwellpark Rows at present discharges to the Pow Burn.

Cambuslang.—This Special Drainage District was enlarged so as to include an area at Burnside, regarding which complaint had arisen in connection with sewage pollution of a burn which passes through the lands of High Crosshill and Stonelaw Woods in the Burgh of Rutherglen. Arrangements were also made to construct the necessary sewers to convey the sewage from the area to the sewer in Duke's Road, for the purpose of removing cause for complaint so far as the Middle Ward area was concerned. An area in the Lower Ward District was also involved in the complaint, and, with a view to temporarily removing cause for complaint, it was arranged to have the portion of the burn complained of cleaned out.

Carluke.—Samples of Jock's Burn above and below the sewage irrigation fields were taken on 5th February for analysis. The results showed that the stream below the outfall absorbed an amount of oxygen in five days much in excess of the limit amount, and that the stream above was "clean." A copy of the analyses was forwarded to the Upper Ward Sanitary Inspector for his information.

Complaint was made with reference to the septic tank constructed in 1927 to improve the irrigation arrangements in the Castlehill area, regarding which complaint had been made in the preceding year. The area of irrigation was extended with a view to removing cause for complaint.

Chryston and Muirhead.—At Bridgend Works, on 15th and 23rd January, the filter trays were found to be unsatisfactory, and on the latter date the bulk of the tank effluent was being discharged to the Bothlin Burn. The small tank at Moodiesburn was found to be discharging crude sewage on 19th December. The Sanitary Department had the tank cleaned out. Further reference is made under the heading "Streams" (page 63) to the sewage purification works at Bridgend, which had been complained of as a source of pollution of the Bothlin Burn by the Medical Officer of Health for Dunbartonshire, but it might be here noted that the Engineers have submitted a scheme of extension for which a Government grant might be obtained. This scheme, which was approved on that understanding, comprised increased tank and filter capacity, the provision of automatic filter distributors, the extension of the sludge pits, the acquisition, if necessary, of ground to allow of extension of the works, and the enclosing of the extended area of the works, the cost of all of which was estimated at £3,000.

Cleland and Omoa.—The question of enlarging this Special Drainage District so as to include the areas of Hattonrigg, Bellside, and Shawtonfoot, or, alternatively, the formation of a new special district to embrace these areas, was considered by the District Committee, the matter having been raised in connection with a complaint made by Shotts Parish Council as to the seriously polluted condition of a ditch which flows through Cleland Public Park. The areas mentioned were also included in those specially considered in 1927 as areas requiring proper drainage facilities. The ditch referred to conveys the sewage from the Hattonrigg area, which is entirely

outwith the Special Drainage District of Cleland and Omoa. As a temporary expedient towards removing cause for complaint, the ditch in the Public Park was cleaned out, and a proposal to pipe in the ditch where complained of was also considered. A suggestion that a tank through which the sewage could be passed before being passed into the ditch was also considered and reported on by the District Engineer. This tank, sludge pits, and a necessary sewer were estimated to cost £2,870. The whole matter was still under consideration at the end of the year.

Glenboig.—The proposed scheme of sewerage and sewage purification for this district was still under consideration at the end of the year. Pollution of the Glenboig or Bothlin Burn was again complained of.

Harthill.—Complaint having again been made of sewage pollution of the How Burn from various drainage outfalls at Harthill and Eastfield, as to which inspections were made and reported on, the District Committee again took up consideration of the matter and agreed to form the areas into a special district, to be known as Harthill Special Drainage District. The special district was formed on 19th June, the area included being one of these reported on in 1927 as being urgently in need of proper drainage and sewage disposal facilities. A complete scheme of sewerage and sewage disposal works was also approved of, the estimated capital cost of the scheme (including the cost of various sewers already constructed) being £33,550, exclusive of land and wayleaves. The work, in respect of which a Government unemployment grant was obtained, was commenced during the year.

Lesmahagow.—At an inspection made on 27th December, it was found that the whole of the sewage was discharging from the sewage purification works in a crude state to the River Nethan. On the attention of the District Sanitary Inspector being drawn to the matter, he explained that this had arisen in connection with the cleaning of the tanks when the workmen had to be temporarily withdrawn to attend to other urgent work at Coalburn, and also to the fact that the sludge pump had got out of order and had to be dismantled for repairs, which took some considerable time to effect.

Overtown.—Samples of the stream into which the effluent from the sewage purification works discharges were taken, for analysis, on 3rd September. The results, a copy of which was forwarded to the District Engineer, showed the stream to be very seriously polluted.

Stepps.—Although these works were extended and improved in 1928, at a cost of well over £1,000, owing to development in the area, the works are not capable of filtering the whole of the effluent, and schemes which might rank for an unemployment relief grant were submitted by the Engineers and approved. First a scheme for increasing the filter capacity and removing the filter media and extension of the sludge pits, all at an estimated cost of £2,000, was considered and approved, but afterwards the Engineers submitted a larger scheme, in which it was explained that one of the difficulties at the existing works is the limited depth of the filter beds, which is limited by the lowest levels which have to be drained by the outfall sewer, and is now operating to the limit of its capacity. They also explained, however, that nearly one-half of the sewage could be intercepted at a higher level in Lenzie Road and conveyed to the site of the sewage works at a higher level, and they proposed to continue to treat approximately one-half of the sewage at the existing low-level works and construct an additional outfall sewer and also sewage works at a higher level, but alongside and to the east of the existing works, which would allow the construction of filter beds of a more suitable depth, with adequate head for operating distributors. The total estimated cost of this scheme was £5,000, which was approved in substitution of the lesser scheme referred to.

Stonehouse.—Samples of the Cander Water above and below the outfall from the sewage purification works were taken, for analysis, on 21st August. The results, a copy of which was forwarded to the District Engineer, showed that the effect of the effluent on the stream was practically nil.

Strathaven.—Samples of the Powmillon Burn above and below the sewage purification works were also taken on 21st August. The results showed that there was considerable pollution of the stream, but that such pollution, as represented by the figures of analysis, was not sufficiently great to render the water unfit for cattle-watering purposes. The District Engineer was informed.

Populous Places, &c., Outwith Special Drainage Districts.

Allanton Terrace Tank.—At inspections relative to a verbal complaint made by a farmer as to sewage pollution of the ditch or stream into which the effluent from this tank discharges, it was noted that the tank appeared to require cleaning, the effluent being a source of very serious pollution. The attention of the Sanitary Department was drawn to the matter, and the tank was cleaned out.

Ashgillhead.—Complaint was made as to pollution of the Stewart Gill Burn as it flows through orchard property, the cause of pollution being the sewage purification works (septic tank) which deal with the sewage of the Ashgillhead Housing Schemes. In dealing with the question, the formation of a special drainage district for the area, which had previously been considered, was again considered, and a district to include Ashgillhead, the new housing schemes, and the houses at Whinknowe was reported on by the District Engineer, who took into consideration the possibility of, in the future, draining the Shawsburn and Ayr Road and Dunlop Place areas, which are not now included in the proposed district. The estimated cost of such a scheme was, including new sewers, tank, sludge pits, and filters required, £11,220, added to which the cost of the sewers, tank, and sludge pit already constructed, viz., £7,380, made the total cost of the suggested scheme £18,600. The District Committee were favourable to the formation of a district and the carrying out of the proposed works provided the scheme was approved for grant purposes. The matter was still under consideration at the close of the year.

Bellshill Hospital.—A new septic tank, to plans prepared by the District Engineer, was constructed during the year. The old tank in previous years gave very considerable trouble through leaking, and the Shirrel Burn was frequently seriously polluted by crude sewage during the times it was necessary to have the tank repaired.

Ferniegair.—The question of the cleaning of the Ross outfall ditch to alleviate nuisance was again under consideration as to the conditions under which the work had to be done by the District Committee, it being arranged that the ditch would in the first instance be cleaned out at the expense of the Local Authority, and that on any future occasion the expense would be borne mutually with the owner of Ross House. Owing to a misunderstanding, the cleaning of the ditch was delayed until the current year.

Forth.—A sample of the Mouse Water at a point below the outfall from the Forth Housing Scheme sewage purification works was taken on 10th September, for analysis, in connection with a complaint, also involving a mine workings drainage outfall, received by the Upper Ward District Clerk. The analysis showed distinct evidence of sewage pollution. This information was conveyed to the District Clerk.

Gartloch Mental Institution. — Inspections were made of the recently reconstructed sewage purification works for the main buildings of Gartloch Mental Institution. These works comprise detritus chambers, two settling tanks, two rotary sprinkler filters, and sludge bed, and cost about £2,400. The outfall is to the Bishop Loch, as formerly.

Greengairs.—The drainage and sewage disposal facilities for this village was again under consideration, it having been also specially considered in 1927, when in view of the high cost and low valuation of the village it had been deemed inexpedient to proceed with a scheme The matter was continued.

Newarthill.—Complaint was made on behalf of the tenant of Stevenston Mains Farm as to the seriously polluted condition of the ditch on his farm which conveys sewage from part of Newarthill, Whittagreen Housing Scheme, and the major portion of Carfin Special Drainage District. To mitigate cause for such complaint the ditch had been previously cleaned out, and in 1926 an agreement was come to by which the Special Districts Committee made a payment to the end of the complainer's lease of the farm to cover all claims in respect of the discharge of sewage, &c. The matter was continued in order that arrangements might be made which would obviate objections meantime.

Victoria Auxiliary Infirmary, near Thorntonhall.—The sewage purification works for this new institution, situated at Philipshill, near Thorntonhall, were inspected. The institution meantime has a population of about 60 patients and staff, and the works consist of a screening chamber, two settling tanks, rotary sprinkler filter, and sludge beds, provision being made for duplication, when required. The outfall is to a ditch which flows through grazing lands and joins the Kittoch Water.

Waterloo.—Complaint was made as to nuisance arising from pollution of the ditch into which the sewage of the housing schemes at Waterloo and from certain houses in Overtown is discharged. The Waterloo area was also specially considered in 1927 as to drainage facilities. The District Sanitary Inspector was instructed to have the ditch cleaned out with a view to effecting improvement in its condition.

Drainage Facilities for Areas Outwith Special Drainage Districts.—District of the Middle Ward.—Sewage-polluted ditches or streams at the undernoted places were cleaned out by the Sanitary Department, in accordance with the general instructions of the District Committee given in 1927, as a temporary expedient for improving the condition of sewage-polluted streams in areas where no proper drainage facilities existed :—

Ashgillhead, Cleland, Greengairs, Morningside, Overtown, and Quarter.

Burghs.—*Airdrie.*—The sewage purification works for the Burgh of Airdrie were formally opened on 26th February. They are on the activated-sludge (Ames Crosta) method of purification. The effluent discharges partly to the South Burn at Locks Street, the aspect of which, since the interception of the burgh sewage and its purification in the new works, has been completely transformed. Formerly it was practically an open sewer. The other portion of the effluent is conveyed by an outfall drain to a ditch near Low Palacecraig, and thence to the North Calder Water. It is interesting to recall that attention was drawn by the County Council to the serious pollution of the North and South Burns, which eventually became the Luggie Burn, which is a tributary of the North Calder Water, as far back as 1896, and that in 1905 legal proceedings were taken against the Burgh Authorities, which ended in a decision of the House of Lords against the burgh in 1910, and that these works are the outcome of these proceedings.

Coatbridge.—The construction of sewage purification works at the site at the Luggie Glen, acquired by the burgh for this purpose, has not yet been commenced.

Motherwell and Wishaw.—There is nothing new to add to what was reported in the preceding year as to the provision of adequate sewage purification works required for the Wishaw area of the burgh,

nor for the outfalls discharging from the Motherwell area of the burgh to the River Clyde. Schemes of purification are still under consideration by the Town Council.

Streams.

In connection with trade and sewage pollutions, 1,685 inspections were made and 1,103 samples taken. These included 110 special samples of the River Clyde and certain of its tributaries taken during the first six months of the year.

The following complaints of alleged pollution of streams were investigated and reported on :—

Bothlin Burn.—With reference to the notes in the report for the preceding year regarding complaints as to pollution of the Bothlin Burn, &c., communications were received early in January from the Department of Health and the Medical Officer of Health for Dunbartonshire, inquiring as to the results of the action taken to effect improvement in the condition of this stream.

With regard to Auchengeich Colliery, the question of reducing the amount of oil and other pollution was again taken up with the colliery owners, but satisfactory remedial measures had not been completed.

With regard to Chryston Sewage Purification Works, some improvement had been effected in the distribution of the sewage, and on 15th January average samples, as well as stream samples, were taken for analysis. Similar samples were taken in October, 1928, when the results of analysis were very unsatisfactory. The Chemist's report on the analysis of the samples taken on 15th January was as follows :—

" These results show that the Bothlin Burn below the outfalls from Chryston Sewage Purification Works and below the colliery is in a grossly polluted condition.

" The stream at this point contains oil and phenols derived from the colliery effluents, and absorbs an excessive amount of oxygen in five days, due not only to the oil and phenol, but also to the organic matter contained in the sewage effluent.

" It is not possible to investigate the effect of these discharges on the stream separately, so that it is difficult to place actual responsibility. Oil and phenoloid substances are undoubted pollutions, capable of absorbing oxygen in large amounts, but the effluent from the sewage works is also of a polluting nature and in itself absorbs four times the amount of oxygen required from a standard effluent.

" The water in the stream above these outfalls is not of the same quality as a sample obtained in October, 1928. At present the amount of oxygen absorbed in five days is high, and indicates that recovery from previous pollution is not complete."

Afterwards further efforts were made to improve the distribution of the sewage over the filters, and the septic tanks were cleaned out. Average sampling was also carried out in April to ascertain the result of these measures. The results of analyses, however, showed the effluent and stream samples to be still unsatisfactory. When the work of adjusting and re-levelling the filter trays was being done the bulk of the tank effluent was discharged direct to the stream. This was noted at an inspection made on 23rd January.

A further communication, dated 30th May, was received from the Department of Health, inquiring as to the position of matters. To enable him to reply, the County Clerk was informed that, with regard to Chryston Sewage Purification Works, the re-levelling of the filter trays had been completed. With regard to Auchengeich Works, a series of brick-built ponds to deal with the effluent from the ammonia works had been provided, but that meantime, owing to unfavourable levels, it was not possible to deal with the whole of the effluent. There was, however, great improvement in regard to pollution by oil, and in connection with the proposed erection of pithead baths it was hoped that in carrying out the drainage details it would be possible to deal with the whole ammonia plant effluent. This had not been accomplished at the end of the year.

Reference might also be made to the detection of serious intermittent coal-dross washings pollution of the Bothlin Burn from Auchengeich Colliery in the month of November, for the prevention of which remedial measures were adopted (see page 46), and also, with regard to Chryston Sewage Purification Works, to the fact that a scheme of extension and improvement of these works has been approved (see page 57).

Ditches on Allanton Farm, Hamilton.—Verbal attention was drawn to the possible sewage pollution of two ditches on this farm, and inspections were made and samples taken for analysis. One of the ditches was quite satisfactory, as it was also ascertained to be in the autumn of 1927, while the other was found to be very seriously polluted by the effluent from the sewage tank for the houses known as Allanton Terrace. This tank was cleaned out and improvement effected.

Ditch in Cleland Public Park.—Inspections were made in connection with a complaint by the Parish Council as to serious sewage pollution of a ditch which flows through this park. Such pollution comes from properties outwith Cleland and Omoa Special Drainage District. The County Medical Officer and District Sanitary Inspector inspected the ditch and were able to certify that a nuisance existed. The District Engineer also reported on the matter. It was arranged as a temporary measure to have the ditch cleaned out where complained of. This matter is also referred to on page 57.

Ditch at Morningside.—Inspections were made of a ditch at Morningside which had been observed to be polluted by oil. The source of pollution was found to be Morningside Fireclay Works, from which oil was being conveyed to the ditch with exhaust steam. To remove cause for complaint, this steam is now conveyed to a dross bing.

Glenboig Burn.—Reference is made under "Bussey Works, Glenboig" (page 51), to complaints made as to sewage and industrial pollution of this stream, which has been the subject of complaint in respect of sewage pollution for many years, and has also been complained of in respect of defilement by rubbish and silting as a result of sewage pollution and by fine sand-washings solids washed down from above Glenboig. With regard to industrial pollution, which comes from the new plant of the Bussey Coal Distillation Company, Limited, preventive measures have been promised, and with regard to sewage pollution, a scheme of sewerage and sewage purification for the village of Glenboig, which was recently formed into a special drainage district, is still under consideration. With regard to the sand-washings effluent, preventive measures exist at Gartverrie Quarry, where this process is carried on, and there is little ground for complaint, although it might be noted that on Saturday afternoon, 30th November, the burn was quite opalescent at Glenboig Station, although there was no polluting discharge from the washery at the time of inspection.

Kirk Burn, Symington.—A complaint as to sewage pollution of the Kirk Burn within Symington Special Drainage District was received and inquired into. These inquiries showed that several properties in the village are not connected to the public sewer, and

that householders are guilty of depositing rubbish in the burn, which affects the amenity at properties lower down. Cautionary notices were posted up and householders otherwise warned as to this practice.

Mouse Water at Forth.—Inspections were made and samples taken in connection with a complaint received by the Upper Ward District Clerk, alleging pollution of the Mouse Water due to a discharge from a conduit situated on the lands of East Forth. The conduit referred to was assumed to refer to the Home Seat Level of Wilsontown Colliery, the discharge from which is possibly liable to show evidence of pollution by spent ammoniacal liquor. Samples of this discharge, as also of the Mouse Water above and below it, and of the stream below Forth Sewage Purification Works' outfall, were taken for analysis on 10th September, the results of which showed that there was no evidence of pollution from the Home Seat Level, but that there was distinct evidence of pollution from the sewage works' outfall discharge. This information was conveyed to the District Clerk.

River Clyde at Ferniegair.—Verbal complaint was made by the President of the United Clyde Angling Protective Association as to alleged intermittent coal-dross washings pollution from Ferniegair Colliery. Inquiries and observations were made with regard to this complaint, the result of which was that it was found that serious pollution of the River Clyde was liable to occur once a week when the colliery lodgment was being cleaned, but that there was no reason to complain of pollution by coal-dross washings. Similar complaint was made in the preceding year, and was then fully investigated, with the same result. It is interesting to note that one of the samples of pit water taken as actually pumped from the mine during the lodgment cleaning operations contained 8844·8 parts per 100,000 of suspended solids.

River Clyde at Kirkfieldbank.—Inquiries were made with regard to a complaint as to depositing tomato plants in the river above the electric power works. Cause for complaint was verified and action taken to prevent a recurrence. Cautionary notices were also posted up at various points in the locality with a view to deterring the apparent practice of householders depositing refuse in the river.

River Nethan at Lesmahagow.—A complaint was received from the Secretary of the United Clyde Angling Protective Association as to the depositing of household refuse in the River Nethan at Turfholm,

and also alleging pollution by discharges from Lesmahagow Creamery and by the effluent from the sewage purification works. Inspections were made, when the statement as to the depositing of household refuse was verified. As to alleged pollution from the Creamery, there was no cause for complaint at the time of inspection, but the effluent from the sewage purification works was found to be unsatisfactory. With a view to remedying cause for complaint as far as possible, notices drawing attention to the offence of depositing refuse in the stream were posted up, and the attention of the District Sanitary Inspector directed to the unsatisfactory sewage effluent, with the suggestion that possibly the septic tanks required to be cleaned. This was duly carried out.

Rotten Calder Water.—Reference is made under "Bardykes Colliery, Blantyre," to a complaint of alleged coal-dross washings pollution (page 47).

Scion Burn, Rutherglen.—Complaint was made with regard to pollution of this small stream at Eastfield by oil and other matter from Richmond Park Laundry. Inspections showed that the burn was slightly polluted by oil, but more so by benzene residue from the dry-cleaning department of the laundry. After inspection and full inquiries in company with the Managing Director of the Laundry Company, certain measures were agreed on with a view to removing cause for complaint, especially in connection with the disposal of benzene residue. It was also agreed that the burn immediately below the laundry premises would be cleaned out. These measures were at once carried out, with satisfactory results.

Shotts Burn.—Reference is made under "Hirstrigg Colliery, Salsburgh," to further complaints alleging pollution of this stream by coal-dross washings (page 49).

Tillan Burn.—Complaint was again made with regard to pollution of this burn by the tenant of Whitecraighead Farm, Cleland, who alleges that the health of his stock has seriously suffered as a result of pollution of their water supply. In addition to the ordinary sewage pollution of the stream which comes from the Parkside, &c., area of the district and Cleland and Omoa Sewage Purification Works, the complainer alleged pollution due to "intermittent discharge of offensive liquors from chemical works in the upper reaches of the Tillan Burn." A report was transmitted to the District Clerk, with

whom the complaint was lodged, in which it was stated, with reference to the alleged pollution from chemical works, that this probably referred to discharges from the knackery at Omoa, but that no pollution had been observed from these premises, although information had been obtained that slight pollution might take place when the floors of the knackery are washed down.

Food and Drugs.

Senior Inspector and Sampling Officer, - CHAS. MACARA.

The work under the Food and Drugs (Adulteration) Act and relative Orders is carried out by three inspectors. The following table shows the yearly average number of inspections, administrative samples taken and analysed, with the percentage found deficient, the yearly average samples taken for special purposes for the five quinquennial periods from 1900-1924, and the annual figures for the years 1925, 1926, 1927, 1928, and 1929 :—

		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, -	1,506	1,383	1,355	6·49	42
1926, -	1,385	1,339	1,325	6·12	129
1927, -	2,405	1,884	1,876	16·04*	174
1928, -	2,689	2,040	2,023	8·15	713
1929, -	**1,895**	**1,467**	**1,463**	**10·2**	**3,971**

* The increase in the percentage deficiences is accounted for by the additional contraventions under the Public Health (Preservatives, &c., in Food) Regulations, which came into force on 1st Jan., 1927.

The following tabular statement shows the work carried out in the three districts of the County, and the Burgh of Biggar, and the manner in which the samples were procured, &c. :—

		Samples procured.				Analysed.	
District.	Inspections made.	Formal.	Informal.	Received Privately.	Total.	Public Analyst.	County Chemist.
Upper Ward, -	254	45	169	—	214	45	169
Middle Ward, -	1,468	270	861	2	1,133	270	859
Lower Ward, -	137	32	60	—	92	32	60
Burgh of Biggar, -	36	13	15	—	28	13	15
Total, -	1,895	360	1,105	2	1,467	360	1,103

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 and Non-genuine.
Sweet Milk,	877	876	60
Skimmed Milk,	4	4	1
Cream,	5	5	—
Condensed Milk,	1	1	—
Ice Cream Powder,	1	1	—
Butter,	22	22	2
Cheese,	3	3	—
Margarine,	5	5	—
Whisky and Rum,	87	87	19
Non-alcoholic Cordials,	5	5	—
Mince,	335	335	60
Sausage Meat,	21	21	3
Sausages,	24	24	5
Haggis,	1	1	—
Chicken, Ham, and Tongue,	1	1	—
Bacon and Ham,	1	1	—
Lard,	2	1	—
Barley,	31	31	—
Rice,	1	1	—
Rennet,	1	1	—
Preserved Peas,	1	1	—
Cream Cakes, Madeira Cake, &c.,	2	2	—
Tomatoes (tinned),	1	1	—
Seedless Raisins,	1	1	—
Dried Fruits,	6	6	—
Jam,	1	—	—
Honey,	1	1	—
Grape Fruit (tinned),	2	2	—
Coffee and Coffee with Chicory,	2	2	—
Sugar,	2	2	—
Syrup,	2	2	—
Vinegar,	2	2	—
Sauce,	4	4	—
Egg Substitute,	1	1	—
Mustard	1	1	—
Magnesia,	2	2	—
Invalid Food,	1	1	—
Zinc Ointment,	1	1	—
Sweet Spirit of Nitre,	1	1	—
Tincture of Iodine,	1	1	—
Tartaric Acid,	1	1	—
Rhubarb Pills,	1	1	—
Seidlitz Powder,	1	—	—
Gregory Powder,	1	1	—
	1,467	1,463	150

47 of the deficient samples were taken formally and 103 informally. With regard to the 47 formal non-genuine samples, informations were lodged with the County Clerk. The vendors from whom the informal samples were procured were kept under supervision 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 :—

Reg. No.	Article	Date Procured	Action Taken
5 & 6	Sweet Milk,	17th Jan., 1929,	Complaint withdrawn owing to technicality.
26	Mince,	8th Feb., ,,	Pled guilty at Hamilton, 22nd March, 1929. Fined £2.
39	Sweet Milk,	22nd Feb., ,,	No proceedings taken, as samples taken on delivery in the Burgh of Hamilton were found deficient.
43	Sweet Milk,	2nd March, ,,	Pled guilty at Hamilton, 10th May, 1929. Fined £3.
52	Whisky,	19th March, ,,	Pled guilty at Hamilton, 3rd May, 1929. Fined £5.
53	Whisky,	19th March, ,,	Pled guilty at Hamilton, 3rd May, 1929. Fined £5.
54	Sweet Milk,	20th March, ,,	Pled guilty at Hamilton, 21st June, 1929. Fined £1 5s.
74 & 75	Sausages,	12th April, ,,	Pled guilty at Hamilton, 24th May, 1929. Fined £2.
81	Whisky,	19th April, ,,	Pled guilty at Lanark, 4th June, 1929. Fined £10.
103	Mince,	3rd May, ,,	Pled guilty at Lanark, 4th June, 1929. Fined £2.
111	Sausage Meat,	8th May, ,,	Pled guilty at Glasgow, 18th June, 1929. Admonished.
117	Sausages,	15th May, ,,	Pled guilty at Glasgow, 25th June, 1929. Fined £4.
124	Whisky,	23rd May, ,,	Written caution sent by County Clerk.
125 & 126	Sweet Milk,	29th May, ,,	Pled guilty at Lanark, 12th July, 1929. Fined £5.
128	Sweet Milk,	29th May, ,,	Proof at Lanark, 4th October, 1929. Fined £1 10s.
129	Skimmed Milk,	29th May, ,,	
132	Sausages,	6th June, ,,	Pled guilty at Glasgow, 12th July, 1929. Fined £3.
144	Sausages,	17th June, ,,	Pled guilty at Airdrie, 30th July, 1929. Fined £2.
151	Sweet Milk,	20th June, ,,	Proof at Hamilton, 1st November, 1929. Fined £3.
176	Sweet Milk,	5th July, ,,	As a result of "Appeal to Cows" no action was taken.
177	Sweet Milk,	5th July, ,,	As sample taken from producer on delivery was just on the standard no legal proceedings taken.

Reg.No.	Article	Date Procured		Action Taken
181	Sweet Milk,	10th July,	1929.	Pled guilty at Hamilton, 3rd October, 1929. Fined £3.
195	Sweet Milk,	22nd July,	,,	Pled guilty at Hamilton, 18th October, 1929. Fined £2.
200	Sweet Milk,	22nd July,	,,	Pled guilty at Hamilton, 18th October, 1929. Fined £2.
228	Sausage Meat,	4th Sept.,	,,	Pled guilty at Hamilton, 18th October, 1929. Fined £3.
236	Sausage Meat,	10th Sept.,	,,	Pled guilty at Lanark, 15th October, 1929. Fined £2.
242	Sweet Milk,	19th Sept.,	,,	Pled guilty at Hamilton, 25th October, 1929, Fined £2.
261	Mince,	7th Oct.,	,,	Pled guilty at Airdrie, 19th November, 1929. Fined 10s.
262	Mince,	9th Oct.,	,,	Pled guilty at Lanark, 13th November, 1929. Fined £2.
278	Mince,	22nd Oct.,	,,	Pled guilty at Hamilton, 6th December, 1929. Fined £3.
301	Mince,	11th Nov.,	,,	Pled guilty at Glasgow, 10th December, 1929. Fined £2.
306	Mince,	12th Nov.,	,,	Pled guilty at Hamilton, 13th December, 1929. Fined £2.
309	Mince,	15th Nov.,	,,	Pled guilty at Hamilton, 20th December, 1929. Fined £3.
316	Mince,	22nd Nov.,	,,	Proceedings pending.
318	Mince,	25th Nov.,	,,	Proceedings pending.
320	Mince,	26th Nov.,	,,	Proceedings pending.
324	Mince,	26th Nov.,	,,	Proceedings pending.
333	Whisky,	29th Nov.,	,,	Proceedings pending.
350	Mince,	19th Dec.,	,,	Proceedings pending.
351	Mince,	19th Dec.,	,,	Proceedings pending.
352	Mince,	19th Dec.,	,,	Proceedings pending.
359	Whisky,	26th Dec.,	,,	Proceedings pending.
367	Whisky,	31st Dec.,	,,	Proceedings pending.

In addition to the above, the following cases in which skimmed milk cans were unlabelled were dealt with during the year :—

71	Skimmed Milk,	12th April,	1929	Pled guilty at Hamilton, 24th May, 1929, Fined £1 5s. 9d.
129	Skimmed Milk,	29th May,	,,	Proof at Lanark, 4th October, 1929. Admonished.
141	Skimmed Milk,	13th June,	,,	Pled guilty at Hamilton, 12th July, 1929. Fined £3.

Milk.—876 samples of sweet milk were analysed, and 60 certified to be deficient. The following tables show the samples of sweet milk classified according to the percentages of milk fat and milk solids other than milk fat which they contained, and also according to the

business of the vendors, viz., producer-wholesalers, producer-retailers, wholesalers and retailers :—

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK FAT.

PRESUMPTIVE STANDARD = 3 PER CENT.

Milk Fat Percentage.	Number of Samples.				
	Producer-Wholesalers.	Producer-Retailers.	Wholesalers.	Retailers.	Total.
1·6	—	1	—	—	1
2·0	—	—	—	1	1
2·3	—	—	—	1	1
2·4	—	1	—	—	1
2·5	1	—	—	—	1
2·6	—	2	—	3	5
2·7	2	4	—	4	10
2·8	2	4	—	1	7
2·9	—	5	—	1	6
3·0	8	18	—	13	39
3·1	5	13	—	20	38
3·2	7	14	1	20	42
3·3	7	27	1	24	59
3·4	8	23	2	31	64
3·5	10	41	—	48	99
3·6	8	40	1	40	89
3·7	10	30	—	43	83
3·8	6	27	—	37	70
3·9	10	26	—	28	64
4·0	6	22	—	20	48
4·1	8	20	—	12	40
4·2	5	17	—	16	38
4·3	4	6	—	13	23
4·4	2	7	—	7	16
4·5 and over	3	15	—	13	31
Total,	112	363	5	396	876

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.	Wholesalers.	Retailers.	Total.
6·2-8·0	2	—	—	2	4
8·1	—	1	—	—	1
8·2	—	4	—	3	7
8·3	1	1	—	5	7
8·4	1	4	—	10	15
8·5	13	17	—	20	50
8·6	8	30	—	16	54
8·7	19	32	—	42	93
8·8	18	55	2	50	125
8·9	20	63	3	67	153
9·0	9	50	—	62	121
9·1	8	44	—	57	109
9·2	7	27	—	36	70
9·3	3	18	—	14	35
9·4	1	9	—	7	17
9·5 and over	—	8	—	5	13
Total,	110*	363	5	396	874

*Two samples were not examined for solids not fat.

3,971 samples not included in the above classification were taken in connection with special investigations. An investigation, which commenced in November last year at Lesmahagow Creamery with a view to determining whether consignments of milk from 11 farmers in the Upper Ward in cans of various sizes were liable to contain milk under the presumptive standard as laid down by the Sale of Milk Regulations, was continued until the month of November this year. The consignments which were delivered in the morning consisted of the previous evening's milk and the morning milk, and were delivered in cans of a capacity varying from 2 to 12 gallons. 3,751 samples were taken during the year 1929, and 622 samples during the year 1928. A special report on this investigation is appended to this report.

68 samples were taken in connection with an investigation into the milk of newly-calved cows at Hartwood Asylum. There were also 5 " appeals to the cows " in connection with cases of deficiency occurring in the routine work under the Food and Drugs Act. The " appeals " were made to herds consisting of 26, 17, 17, 6, and 4 cows respectively at the evening and morning milking. 152 samples were taken, and, on the average of the whole herds, the milk in each case was well above the standard laid down by the Regulations.

Skimmed Milk.—4 samples of skimmed milk were taken in connection with the non-labelling of the cans in accordance with the statute. One of the samples was also certified to be not genuine in respect that it was deficient in milk solids other than milk fat to the extent of 4·5 per cent. or thereby. Legal action was taken in connection with three of the cases, while the other case of failure to label skimmed milk was cautioned. The analyses of the four samples showed that their milk fat contents were 2·70 per cent., 2 per cent., 1·76 per cent., and ·95 per cent. respectively.

Cream.—5 samples of cream were procured and analysed for the presence of preservatives, but in all cases they were found to be free.

Butter.—22 samples of butter were procured, and 2 samples were found to be not genuine. These non-genuine samples were informally procured from an itinerant vendor. The prevalence of the practice of selling margarine for butter has for a number of years almost disappeared, and it was a surprise to learn that an itinerant vendor had started operations in populous places in the Middle Ward. The method of operation appears to have been that a first visit was paid by a traveller to householders within housing schemes, asking for orders for Strathaven Creamery butter at 1s. 6d. per pound, the orders to be fulfilled a day or two later by motor. The motor appeared at the stated time, and the orders previously received were delivered by the attendants with the motor carrying the alleged butter in clean towels. An informal sample was procured from one of the customers. It was wrapped in a plain wrapper, and on analysis turned out to be margarine. Arrangements were made to procure a formal sample, and the Inspector waited at a house for a whole afternoon, but the motor did not put in an appearance until seven o'clock at night. Again an informal sample obtained from the customer was supplied in a plain wrapper, and on analysis turned out to be margarine.

Arrangements were made to again wait for the vendor in the following week, but he did not put in an appearance at all, and has not been heard of since.

Numerous samples were procured by means of an agent with a view to the detection of the sale of margarine for butter, but in every case the sample was wrapped in a margarine wrapper. There were no cases of excess of water above the limit allowed by the Butter Regulations, 1902.

Cheese.—3 samples of cheese were procured and were certified to be genuine. 2 of the samples, however, were of the nature of crustless cheese made up in blocks wrapped in tinfoil. The Public Analyst certified them to contain 27·90 and 18·45 per cent. of butter fat respectively, with corresponding amounts of water of 37·60 and 46·01 per cent. respectively. Although this cheese is sold at a dearer price than ordinary cheese it does not contain the same butter fat content, a standard for which of 30 per cent. butter fat has been recommended.

Whisky.—Of the 87 samples of whisky and rum, 37 were procured formally and 50 informally. 8 formal samples and 11 informal samples were found on analysis to be under strength as prescribed by the statute. 2 of the formal samples, however, were slight, and written cautions were given. Attention was given to the quality of the whisky on sale at temporary gatherings such as cattle shows, race meetings, &c.

Miscellaneous Articles.

Rum and Coffee.—One sample labelled rum and coffee was procured. This sample was really condensed essence of coffee, probably rum flavoured, and labelled rum and coffee, the price charged being 1s. On analysis it was found to contain 0·10 per cent. of proof spirit. Although not a suitable case for legal action, it would appear from the analysis that the name given to this article is somewhat grandiose. An article with 0·10 per cent. of proof spirit scarcely comes within the category of rum and coffee.

Tinned Fruits.—One sample of tinned tomatoes and 2 of tinned grape fruit were procured during the year. These were found on analysis to contain 0·60 grains, 0·30 grains, and 0·50 grains of tin per pound. The traces of tin were probably taken up from the tin container, but the amounts were too small to warrant legal action being taken.

Drugs.—9 samples of drugs were procured under the Food and Drugs Act, and were all found on analysis to conform to the B.P. standard. 5 samples of prescribed medicines were procured in connection with the scheme of the National Health Insurance Committee for the testing of drugs and appliances supplied to insured persons under the National Health Insurance.

Margarine Contraventions.

13 contraventions were detected, consisting of 9 cases of non-labelling, 3 of failure to use the statutory wrapper, and 1 case of the use of an improper wrapper. 2 of the cases of want of wrappers referred to the dual offence of selling margarine for butter already referred to, and the case of improper labelling referred to margarine being supplied in prints to small shops, the wrapper of which had other printed matter on it than the word "Margarine." The wholesale merchants of the margarine were written to by the County Clerk, and the matter was remedied.

Bacteriological Examination of Milk.

In making investigations in connection with the granting of licences for the sale of graded milk under the Milk (Special Designations) Order (Scotland), 1923, 220 inspections were made and 285 samples procured, 17 of them privately, for examination in the County Laboratories. As regards ordinary milk, 619 samples, 147 being informal samples procured under the Food and Drugs Act, and 472 taken by the Middle Ward Sanitary Inspectors, were examined in the Bacteriological Laboratory, with a view to finding out the cleanliness or otherwise of the milk retailed within the County. As a result of this examination, about 27 per cent. of the samples were found to be unsatisfactory. In connection with 156 of the unsatisfactory samples, intimation was given to the District Sanitary Inspector in whose area the vendors' premises were situated. He thereafter instructed a member of his staff to visit the premises during milking time and give general instructions as to the care that should be taken to ensure cleanliness of the milk supply. In connection with 10 of the samples, a pint of milk was passed through a filter pad in a "Minit" sediment tester in the presence of the vendor. In 2 of the samples the filter pads were dirty. The dirty pads were shown to the vendors, who were verbally cautioned. Experience has shown that this method of drawing dairymen's attention to the visible dirt in their milk supply has a very salutary

effect. Re-inspection and sampling at the vendors who have been cautioned almost invariably showed a great improvement.

A sample of ordinary milk was procured on demand from a licensed retailer for Grade A milk. It was supplied from an unlabelled can on the back of a retail van which had an advertisement board in front with "Grade A Milk" printed on it. The milk supply came from a producer who is not licensed to sell Grade A milk. At several inspections it was found that the retailer had no graded milk for sale. An information was lodged with the District Clerk, and legal proceedings taken.

2 samples of pasteurised milk were procured from Co-operative Societies, one in the Lower Ward and the other in the Middle Ward. The samples were supplied in pint bottles stoppered with a disc. The bottles were not labelled "Pasteurised," nor were the vendors licensed to sell pasteurised milk, in accordance with the Milk (Special Designations) Order. About the same time that the samples were taken, public hoardings were placarded with bills advertising the sale of "Rich, Clean, Sterilized, and Pasteurised Sweet Milk," in sealed bottles, by the Co-operative Society from whom one of the samples was purchased. To advertise pasteurised milk in the absence of a licence for the sale of such milk is also a statutory offence, and an information against the Co-operative Society was lodged with the District Clerk. An information against the Wholesale Society which supplies the above Society with the milk was also lodged, in respect of the issue by them of a booklet for distribution amongst the members of the local Society advertising pasteurised milk without a licence for the sale of milk under this special designation.

10 samples were taken from producer-wholesalers against whom complaints had been received from other Local Authorities.

Public Health (Condensed Milk) and (Dried Milk) Regulations (Scotland), 1923.

Attention was given at all inspections to the requirements of the above regulations. One sample of condensed milk was procured and analysed. No contraventions were detected.

Sale of Food Order, 1921.

4 contraventions of the above Order were detected. These consisted of failure to label imported meat with the word "Imported"

or name of the country of origin as required by the Order. Verbal cautions were given in these cases, and, on re-inspections being made, the cautions were found to have had a salutary effect.

Public Health (Preservatives, &c., in Food) Regulations (Scotland), 1925.

All the articles which are affected by the above regulations were analysed for the presence of preservatives. In procuring samples of mince, sausages, and sausage meat, &c., 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, 60 samples of mince, 3 of sausage meat, and 5 of sausages were found to be not genuine, in respect that they contained preservative prohibited by the regulations. In the case of one of the sausage meat samples, the Public Analyst certified it to consist of minced butcher meat, with no starchy filler present, and to be therefore "mince." It was evident that the term "sausage meat" had been given to the article because it was known that the purchaser was an Inspector. As the sample contained 320 parts per million of sulphur dioxide, and preservative is only allowed according to the regulations in sausage meat, viz., sausage meat containing raw meat, cereals, and condiments, it was deemed advisable to institute legal proceedings.

16 contraventions of failure to exhibit the notices required regarding preservatives in sausages and sausage meat under the regulations were detected. Verbal cautions were given and the vendors kept under supervision.

Demonstration with "Ultra-Violet Rays" on Foodstuffs.

In connection with the marking of eggs under the Merchandise Marks (Imported Goods) Order, 1928, there has been reported in the press cases of the removal of the mark on "imported" eggs by means of acid. This practice was detected by means of "Ultra-Violet Rays." Advantage was taken of the "Ultra-Violet Ray" installation at Hairmyres Colony to have a demonstration made for administrative purposes. Fresh country and preserved eggs, and imported eggs from which the stamp was removed by acid, were

examined, when it was found that a new-laid egg can be detected from a "carried" and preserved egg, and the egg which had the stamp removed was also clearly shown by a brown patch at the place which had been treated with the acid. At the same time, the opportunity was taken to expose to the "Rays" the following foodstuffs:— Margarine and butter, pure and compound lard, rice (polished and unpolished), fresh meat, imported meat, and mince containing preservative. This light was found to be useful in distinguishing between margarine and butter, the former showing a white colour and the latter a pale yellow colour. In the other articles no distinguishing difference could be detected.

NEW LEGISLATION.

The Food and Drugs (Adulteration) Act, 1928.

The administrative work under the Food and Drugs Acts has been greatly simplified by the coming into operation in January, 1929, of "The Food and Drugs (Adulteration) Act, 1928." This Act was passed to consolidate the principal Food and Drugs Act of 1875 and the many amending enactments.

Part I of the Act deals with the sale of food and drugs which have been adulterated by extraneous matters so as to render them injurious or not of the nature, substance, or quality of the article demanded; Part II with the labelling of margarine and milk-blended butter and the registration of butter factories, &c.; Part III with the various formalities and powers of sampling; Part IV with the provisions regarding legal proceedings; and Part V with definitions of terms, &c.

The application of the Act to Scotland is somewhat modified. Section 21 (giving a vendor whose milk has been sampled the right to request the local authority to take samples on delivery or to make "appeals to the cows") does not apply, and, instead, there is a provision enacting that every tin or receptacle containing condensed, separated, or skimmed milk must bear a label to that effect clearly visible to the purchaser. The difference is further made that, where legal proceedings are taken under this Act in respect of milk, cream, skimmed milk, separated milk, or butter milk, a warranty or invoice shall not be available as a defence.

The Artificial Cream Act, 1929.

An Act to regulate the sale and manufacture of artificial cream, designated "The Artificial Cream Act, 1929," came into force on 1st June, 1929. This Act enacts that no article shall be described as cream unless it is the genuine article. All receptacles containing artificial cream exposed for sale for human consumption must have the words "Artificial Cream" printed in large legible type either on the receptacle itself or on a label securely attached thereto. There is also provision for the registration of premises where artificial cream is manufactured or sold, and also for the power of entry for officers of the local authority.

Agricultural Produce (Grading and Marking) Act, 1928.

This Act makes provision for the use of grading designations in connection with articles of agricultural produce and the making of regulations with regard to these. Special provisions are made with regard to eggs. Eggs, which have been subjected to any process of preservation, must not be sold or exposed for sale unless marked in the prescribed manner. Provision is also made for the registration of premises used for the cold storage or chemical storage of eggs.

The Agricultural Produce (Grading and Marking) (Scotland) Regulations.

In order to encourage an extended use of home-grown agricultural produce, the Department of Agriculture for Scotland have, under the powers conferred on them by the Agricultural Produce (Grading and Marking) Act, 1928, made the following regulations, which came into force during the year :—

(1) The Agricultural Produce (Grading and Marking) (Tomatoes) (Scotland) Regulations, 1929 ;

(2) The Agricultural Produce (Grading and Marking) (Malt, Flour, and Malt Extract) (Scotland) Regulations, 1929 ; and

(3) The Agricultural Produce (Grading and Marking) (Ware Potatoes) (Scotland) Regulations, 1929.

Special designations are incorporated with a designation mark, viz., an outline map of Scotland, with the designs of the Union Jack and the Cross of St. Andrews on right and left and associated with the words "Produce of Scotland" and "Empire Buying at Home."

The regulations have schedules attached to them giving the conditions under which traders may be authorised by the Department of Agriculture for Scotland to sell their merchandise under these designations and marks.

Merchandise Marks Act, 1926.

Under this Act, Orders have been made during the year specifying that the following imported articles, viz. :—(1) currants, sultanas, and raisins; (2) eggs in shell; (3) dried eggs; and (4) oat products, when exposed unpacked for sale by retail are to be marked with an indication of the country of origin in letters not less than half-an-inch in height.

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.

The only request for sampling by the official samplers was from a Farmers' Trading Association. The consignments arrived at the railway station, and were sampled in the wagons prior to being carted away by the individual farmers forming the Association. The sampling under the Act is carried out by the Food and Drugs Inspectors.

7 inspections were made and 9 samples of fertilisers taken. All the samples were certified by the Agricultural Analyst to conform to the statutory statements, with the exception of a sample of bone meal, which was 0·38 per cent. deficient in phosphoric acid. The deficiency, however, is within the limits of variation prescribed under the Act.

The following table shows the number of samples obtained and the number found deficient :—

Fertilisers.			Feeding Stuffs.		
Name.	Obtained.	Deficient.	Name.	Obtained.	Deficient.
Grain Manure, -	1	—			
Sulphate of Ammonia,	1	—			
Calcium Cyanamide,	1	—			
Ground Mineral Phosphates, -	1	—		Nil.	
Basic Slag, - -	1	—			
Superphosphates, -	1	—			
Bone Meal, - -	1	1			
Potash Salts, - -	1	—			
Kainit, - - -	1	—			
Total,	9	1			

Shops Acts, 1912-1921.

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 the statute. Legal proceedings against 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 statute. 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 for the three wards of the County. There were 174 contraventions. These consisted of 4 cases of failure to close at the time fixed on weekly half-holidays and under Closing Orders; 11 cases of selling non-exempted goods; 152 failures to exhibit notices in terms of the Act; and 7 failures to give assistants half-holidays at 1.30 p.m.

The following statutory notices were issued to shopkeepers:—

Shop assistants' weekly half-holiday, ...	30
Mixed shops for exempted goods, ...	40

The following paragraphs give further 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 Middle Ward; (2) the Parish of Carluke; (3) the Baillieston and District Butchers' Order; and (4) the Lower Ward 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 which they choose for the closing of their premises in the afternoon, and intimate such arrangement by means of a notice exhibited on their premises. 160 localities were visited on the day fixed for the weekly half-holiday, and, generally speaking, the closing of shops at 1 p.m. was very well observed. 114 contraventions were detected, consisting of 11 cases of the sale of non-exempted articles, 3 cases of failure to close promptly, and 100 cases of failure to exhibit the statutory notices. Verbal cautions were given with regard to all contraventions in the first instance. All the shopkeepers who had previously been cautioned for selling non-exempted goods in the

half-holiday were afterwards tested by means of an agent. The agent was instructed to purchase articles such as butter, but was only supplied in two instances; in all the others a refusal to sell was given. Informations were lodged with the County Clerk with regard to the two cases where the goods were supplied. Legal proceedings were instituted before the Sheriff, who imposed a fine of 10s. in each case.

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' Early Closing Order in Blantyre; (3) Butchers' Early Closing Order in Baillieston and District; (4) Butchers' Early Closing Order in the Lower Ward; and (5) Barbers' and Hairdressers' Early Closing Order applicable to the Special Lighting Districts of Aitkenhead and Tannochside, Bellshill and Mossend, Blantyre, Bothwell, Cambuslang, and Uddingston.

At present an Early Closing Order for grocers in Blantyre Parish is under consideration, and in connection therewith 30 inspections were made with a view to making up a register of the number of grocers' shops.

Five evening inspections were made in connection with the closing of shops under the Closing Orders and Act relating to the general closing hours. Two contraventions were detected. One of these consisted of want of promptness in closing the shop door at the hour fixed, and one case of selling non-exempted goods after the closing hour. The shopkeepers concerned were verbally cautioned, and kept under observation.

Street Trading.—During the routine inspection on the weekly half-holiday attention was given to trading on the streets by hawkers, &c.

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. Seven contraventions were detected, six where the shop assistants were employed on their half-holiday after 1.30 p.m., and in the other no half-holiday at all was given. The employers were interviewed by the Inspector in the cases of want of promptness in letting the assistants off duty on their half-day, and in every case the matter was remedied. With regard to the case in which no half-holiday was given, an information was lodged with the County Clerk. After consideration by the Committee, it was deemed sufficient to caution the offending employer, and this was done in writing by the County Clerk.

59 contraventions in respect of failure to exhibit the assistants' half-holiday notices on the premises were detected. Warnings were given, and copies of the notice sent to the vendors concerned.

Over-employment of Young Persons under 18 *Years of Age.*—Attention is always paid to this provision of the Act, but no contraventions were detected.

Communications.—Many special visits were made as a result of communications received from traders requesting information regarding the provisions of the Act.

TABLE D.—SHOWING INSPECTIONS, VISITS TO SHOPS, &C., AND CONTRAVENTIONS IN THE THREE WARDS OF THE COUNTY, 1929.

Inspections and Contraventions.	Upper Ward.	Middle Ward.	Lower Ward.	Total for County.
Inspections to Localities, - -	18	129	19	166
Visits to Shops, &c., - - -	99	736	68	903
Contraventions—				
Failure to close: Weekly Half-holiday and under Closing Orders, - - - - - -	—	4	—	4
Sale of non-exempted goods, -	—	10	1	11
Street Trading, - - - - -	—	—	—	—
Failure to give assistants weekly half-holiday at 1.30 p.m., -	1	6	—	7
Failure to give assistants proper intervals for meals, - - -	—	—	—	—
Failure to provide seats for female assistants, - - - - -	—	—	—	—
Employing young persons under 18 years more than 74 hours per week, - - - - -	—	—	—	—
Failure to exhibit notices in terms of Act, - - - - - -	11	130	11	152
	12	150	12	174

By-laws Regulating Places for Public Refreshment.

Seven inspections were made in connection with applications from the occupiers of registered premises for permission to make structural alterations so as to permit of a carrying-out trade after the hours prescribed by the By-laws, viz., 11 p.m. on week days and 8 p.m. on Sundays. Reports dealing fully with each application were sent to the County Clerk.

COUNTY OF LANARK.

REPORT with regard to a special investigation carried out by the County Medical Officer to determine the composition of milk as delivered under the usual marketing conditions.

A previous investigation was carried out in the years 1912-1913 to determine the variations in composition of the milk from individual cows in various herds. From that investigation it was found that although individual cows gave milk which did not conform to the milk fat standard, the mixed milk of a herd of three or more cows did not fall below the standard in milk fat.

The present investigation was carried out for a period of one year to determine the composition of the milk in cans or churns of varying sizes as delivered to the market. Arrangements were therefore made for samples being taken twice per week at a Creamery in the County from 11 farmers who were delivering milk to the Creamery. These producers were selected at random, and the consignments delivered by them daily varied from 2 gallons to 90 gallons in cans containing quantities from 1 gallon to 12 gallons.

Each can delivered by the farmer was sampled on two days per week from 12th November, 1928, to 8th November, 1929, the days varying from time to time. The milk in each can was thoroughly mixed by means of a plunger before the samples were taken.

The information obtained has been summarised in tabular statements which form an appendix to this report, as follows:—

Table No. 1 gives the percentage of milk fat in the samples taken from each herd;

Table No. 2 gives the percentage of solids not fat in the samples taken from each herd;

Table No. 3 gives the percentage of milk fat in each sample taken and shown in monthly periods;

Table No. 4 gives the percentage of solids not fat in each sample taken and shown in monthly periods;

Table No. 5 gives the percentage of milk fat contained in each sample with the approximate quantity contained in each can;

Table No. 6 gives the percentage of solids not fat contained in each sample with the approximate quantity contained in each can.

From these tables it will be seen that **4,373** samples were analysed. 2 samples were found to be deficient in milk fat and in solids not fat; 12 were found to be deficient in milk fat alone; and 73 were found to be deficient in solids not fat alone; giving a total of 87 deficient samples.

Samples Deficient in Milk Fat.—These deficient samples were procured from three different producers, one producer being deficient on three occasions, one producer deficient on ten occasions, and one producer deficient on one occasion. The deficiencies occurred in herds Nos. 5, 6, and 9, and the following details give particulars of the further investigations carried out with a view to ascertaining how the deficiencies occurred.

Herd No. 5.—241 samples of morning milk and 238 samples of evening milk were taken from this source. Table No. 1 shows that three samples fell below the standard for milk fat, the particulars of these samples being as follows:—

Month.	Evening or Morning.	Milk Fat per cent.	Solids not Fat per cent.	Approximate quantity in Can.
4th April,	Evening	2·3	8·9	3½ gallons
9th June,	do.	2·9	9·0	2½ do.
11th July,	Morning	2·8	8·2	8 do.

On each of these occasions a visit was made to the farm on the same day on which the deficient sample was taken, with a view to finding out, if possible, the explanation of the deficiency.

With regard to the sample of evening milk on 4th April, found to contain 2·3 per cent. of milk fat, the farmer stated he could explain the matter fully. The evening milk, he stated, was filled into cans from the setting-out basins prior to the morning milking, and thus stood undisturbed for about 1½ hours before the milk was sent away to the Creamery. That morning an 8-gallon can of morning milk required to be filled up, and he lifted a can containing about 4½ gallons of evening milk and poured about one gallon of it into the 8-gallon can of morning milk. Immediately he had done this, he said, the thought struck him that, in the event of the milk being tested at the Creamery that day, he would hear from us. A can containing 8 gallons of

morning milk and a can containing 8 gallons of evening milk were sampled at the same time as the can from which the deficient sample was obtained. These samples were found to contain 3·9 per cent. and 3·6 per cent. of milk fat respectively.

The second deficiency, which occurred in a 2½-gallon can of evening milk found to contain 2·9 per cent. of milk fat on 9th June, was accounted for by the farmer, who stated that it might be the milk from one cow. The following are the results of analyses of samples taken at the same time :—

	Approximate Contents of Can.	Milk Fat per cent.
Evening Milk, -	10 gallons	3·9
,, ,, -	8 ,,	3·8
Morning ,, -	8 ,,	3·5
,, ,, -	8 ,,	3·3
,, ,, -	4 ,,	4·0

On the farmer being interviewed with regard to the third deficiency, which occurred in an 8-gallon can of morning milk found to contain 2·8 per cent. of milk fat and 8·2 per cent. of solids not fat on 11th July, he stated that the deficiency might be accounted for by the milk being from four old cows, newly calved, having been put into this can. Samples were taken from these cows about a week later at the morning and evening milkings. From the analyses of these samples, however, the farmer's explanation was not substantiated as shown in the following table :—

	Yield.		Analyses.			
			Evening. 18/7/29.		Morning. 19/7/29.	
Cow No.	Evening. 18/7/29.	Morning. 19/7/29.	Fat °/₀.	S.N. Fat °/₀.	Fat °/₀.	S.N. Fat °/₀.
1	1½ galls.	1½ galls.	3·60	8·69	3·65	8·66
2	1¾ ,,	1¾ ,,	3·75	8·52	3·15	8·55
3	1½ ,,	1¾ ,,	3·55	8·50	3·15	8·52
4	2 ,,	2 ,,	3·80	8·54	3·00	8·72

The following are the results of analyses of samples taken at the same time as the deficient sample on 11th July :—

	Approximate Contents of Can.	Milk Fat per cent.
Evening Milk, - -	10 galls.	3·7
,, ,, - -	10 ,,	3·7
Morning ,, - -	8 ,,	3·5
,, ,, - -	4½ ,,	3·7

This herd consisted of from 18 to 20 Ayrshire cows, the ages varying.

Herd No. 6.—162 samples of morning milk and 116 samples of evening milk were taken from this source. Table No. 1 shows that 10 of the samples fell below the standard of 3 per cent. for milk fat, the particulars of these samples being as follows:—

Date. 1928	Morning or Evening Milk.	Milk Fat per cent.	Solids not Fat per cent.	Approximate Quantity in Can.
5th Dec.	Mixed (mostly evening milk),	2·8	9·0	4 gallons
17th ,,	Mixed (mostly morning milk)	2·9	9·0	3 ,,
1929				
6th Jan.	Evening, - - -	2·9	9·1	8 ,,
16th ,,	Evening, - - -	2·8	8·8	8 ,
17th ,,	Morning, - - -	2·6	8·7	3 ,,
24th ,,	Mixed (mostly morning milk)	2·7	8·7	3 ,,
4th July	Morning, - - -	2·9	8·6	8 ,,
11th ,,	Morning, - - -	2·9	8·4	8 ,,
22nd ,,	Evening, - - -	2·9	8·9	8 ,,
22nd ,,	Mixed (mostly evening milk)	2·9	8·7	3 ,,

The first deficiency occurred in a sample taken on the morning of 6th December, 1928, which was found to contain 2·8 per cent. of milk fat. This sample was taken from a 6-gallon can containing about 4 gallons of mixed morning and the previous evening's milk. Samples taken at the same time from a can containing 8 gallons of morning milk and a can containing 7½ gallons of evening milk were found to contain 3·7 per cent. and 4·2 per cent. of milk fat respectively.

An "appeal" was made to the cows on the evening and morning of 6th and 7th and the evening and morning of 7th and 8th December, when samples were taken from the individual cows of the herd, which consisted of 10 cows in the evening and 7 in the morning,

the difference in numbers being due to three cows being milked once per day only, in the evening. The following table shows the results of analyses of the "appeal" to the cows :—

	Yield.				Analyses.			
No. of Cow	E. 6th Dec. pts.	M. 7th Dec. pts.	E. 7th Dec. pts.	M. 8th Dec. pts.	E. 6th Fat %	M. 7th Fat %	E. 7th Fat %	M. 8th Fat %
1	8	12	10	10	3·8	*2·9*	4·2	3·2
2*	2	—	2	—	*2·7*	—	*2·7*	—
3	10	13	12	12	3·6	3·1	3·3	3·1
4	8	11	7	10	3·9	3·3	3·0	3·4
5	15	20	16	16	3·7	*2·9*	3·8	3·4
6	12	14	13	12	5·0	4·8	5·2	4·8
7	8	10	8	8	4·3	3·9	3·6	3·5
8*	3	—	4	—	4·8	—	4·8	—
9	14	16	14	16	5·5	4·1	5·1	4·5
10*	1	—	2	—	*2·6*	—	4·3	—

* Cow milked once per day.

In addition to the "appeal" to the cows, samples were taken from each can made up in presence of the inspectors for delivery to the Creamery, the fat content of the samples being as follows :—

		Milk Fat per cent.
7th Decr.	8-gallon can, full of previous evening's milk, -	3·9
	8-gallon can, full of morning milk, - -	3·5
	6-gallon can containing 4 gallons of mixed milk (2½ gallons morning, 1½ gallons evening),	4·3
8th Decr.	8-gallon can, full of previous evening's milk,	4·1
	8-gallon can, full of morning milk, - -	3·7
	6-gallon can containing 4 gallons of mixed milk (1½ gallons evening and 2½ gallons morning), - - - - - -	4·1

While arranging for the "appeal" to the cows, the opportunity was taken of asking for an explanation of the deficiency. All the individuals who handled the milk stated that they could give no explanation. Various possibilities, however, were suggested, viz :— (1) that three cows which were nearly dry were only milked once a day, in the evening; these were always milked last, and their milk would go into the last setting-out basin, and thus would probably be made up with the smaller amount of mixed milk in the 6-gallon can; (2) the man who made up the milk for despatch to the Creamery suggested that, in pouring the milk from the setting-out basins into the cans, some of the cream might be spilt.

The results of analyses of the "appeal" to the cows, however, showed that the first possibility was not well founded. The cows referred to were cows Nos. 2, 8, and 10. Cow No. 2 was shown to give milk of a low quality, viz., 2·7 per cent. of milk fat at both milkings; cow No. 8 gave milk of excellent quality, viz., 4·8 per cent. of milk fat at both milkings; and cow No. 10 gave 2·6 per cent. of milk fat on the evening of the 6th, and 4·3 per cent. of milk fat on the evening of the 7th. The yields of cows Nos. 2, 8, and 10 — viz., 2, 3, and 1 pints ($\frac{3}{4}$ gallon) of milk respectively — could only very slightly influence milk in a bulk of 4 gallons, more especially when 3 pints of this milk (from cow No. 8) was of excellent quality.

The next deficiency occurred on 17th December, when a sample taken from a 6-gallon can containing about 3 gallons of mixed milk showed on analysis 2·9 per cent. of milk fat. In addition to this sample, two samples were taken from two 8-gallon cans, one full of morning and the other of evening milk. The fat contents of these two samples were 3·5 per cent. and 3·3 per cent. respectively.

A further "appeal" was made to the cows at the evening and morning milkings of the 17th and 18th December, and the following table shows the fat content of the milk and the yield of the various cows :—

	Yield.		Analyses.		
No. of Cow.	Evening, 17/12/28. Pints.	Morning, 18/12/28. Pints.	Evening, 17/12/28. Milk Fat, per cent.	Morning, 18/12/28. Milk Fat, per cent.	Remarks.
1	10	12	4·5	3·2	—
2	—	—	—	—	This cow is now dry.
3	11	14	3·3	3·8	—
4	9	10	3·6	3·4	—
5	16	21	4·6	4·1	—
6	16	16	3·9	4·5	—
7	8	10	3·9	3·7	—
8	3	—	5·0	—	—
9	16	18	4·7	3·8	—
0	—	—	—	—	This cow is now dry.

Samples were again taken from the cans made up in the morning for delivery to the Creamery, and the fat contents of the three samples were as follows :—

	Milk Fat, per cent.
17th December—8-gallon can, full of evening milk, - - -	4·4
18th ,, —8-gallon can, full of morning milk, - - -	3·8
18th , —6-gallon can containing 4 gallons of mixed milk,	4·0

Two of the cows, Nos. 2 and 10, which had been previously sampled, were now dry, and, as will be seen from the above figures, all the cows yielded milk well above the standard. The results of analysis showed that the samples taken from the cans made up for delivery to the Creamery in the presence of the inspectors were all well above the standard.

Opportunity was again taken to ask for an explanation of the deficiency. The only explanation that could be given was that the man who made up the milk for delivery to the Creamery had emptied about half of the contents of a setting-out basin, holding about 2 gallons of milk, into the 8-gallon can of evening milk, in order to fill it up, and the remainder he poured into the 6-gallon can as part of the 3 gallons of mixed milk which was below the standard. He therefore assumed that, in pouring off the first portion of the milk to make up the quantity in the 8-gallon can, the cream, or a large portion of it, had been poured off with it, leaving the balance deprived of some of its cream.

The next deficiency occurred on 7th January, 1929, when an 8-gallon can full of the previous evening's milk was certified to contain 2·9 per cent. of milk fat. Samples of morning milk taken at the same time from cans containing 8 gallons and 6 gallons contained 3·5 per cent. and 3·3 per cent. of milk fat respectively.

Again an "appeal" to the cows was made at the evening milking on 7th January. Seven cows were in milk, Nos. 2, 8, and 10 being dry. The following table gives the fat content of the milk and the yield for each cow :—

Evening Milk, 7th January, 1929.

No. of Cow.	Yield. Pints.	Analyses. Milk Fat per cent.
1	10	4·4
2 (Dry)	—	—
3	8	3·8
4	5	3·5
5	22	4·9
6	12	4·9
7	8	4·2
8 (Dry)	—	—
9	20	3·9
10 (Dry)	—	—

The analyses again show that the cows were all giving milk well above the standard for milk fat. Samples of the milk were taken in course of delivery at the Creamery on the morning following the above "appeal" to the cows, and the following are the results of analyses :—

No. of Can.			Milk Fat per cent.
1	8 galls.	Evening Milk,	4·0
2	8 „	Morning „	3·3
3	6 „	Mixed „	3·3

The next deficiency occurred on the morning of the 17th January, when an 8-gallon can full of morning milk and an 8-gallon can full of evening milk fell below the standard for milk fat.

An "appeal" to the cows was again made at the evening milking of 17th January and the morning milking of 18th January, and the following table gives the results of analyses and the yield of each cow :—

	Yield.		Analyses.	
No. of Cow.	Evening, 17/1/29. Pints.	Morning, 18/1/29. Pints.	Evening, 17/1/29. Milk Fat, per cent.	Morning, 18/1/29. Milk Fat, per cent.
1	8	10	3·3	3·4
2 (Dry)	—	—	—	—
3	8	12	3·4	3·4
4	4	8	4·0	3·4
5	16	18	3·8	*2·5*
6	13	16	4·0	4·1
7	8	8	4·0	3·8
8 (Dry)	—	—	—	—
9	14	18	3·6	3·0
10 (Dry)	—	—	—	—

It will be seen that only one of the cows yielded milk below the standard for milk fat, viz., cow No. 5, which gave 2·5 per cent. of milk fat at the morning milking. The average of the milk of the whole herd shows 3·6 per cent. of milk fat at the evening milking and 3·2 per cent. of milk fat at the morning milking.

At the same time that the informal samples were taken on the 17th, formal samples were taken of the milk in course of delivery to the Creamery. Third parts of the samples were sent by registered post to the producer, and samples delivered to the Public Analyst. The results of analyses by the Public Analyst were as follows :—

	Milk Fat, per cent.	
8-gall. can—Evening Milk,	2·76	8% def. in milk fat.
8 „ „ —Morning „	2·55	15% „ „
4 „ „ —Mixed „	3·30	—

An information was lodged with the County Clerk regarding these deficient samples, and legal proceedings were instituted. On the case coming before the Sheriff, however, a technical objection was taken to the complaint on the ground that the third parts of the samples had been wrongly labelled. A mistake had occurred through a wrong Christian name, that of a son, having been inadvertently given. The Sheriff dismissed the case on this technical point.

A sample of mixed milk taken from a can containing 3 gallons was again found to be deficient on 24th January, 1929, but as proceedings were pending regarding the samples taken on 17th January, no inquiries were made regarding this sample. An 8-gallon can of morning milk and an 8-gallon can of evening milk were sampled at the same time, and these were found to contain 3·4 per cent. and 3·3 per cent. of milk fat respectively.

No further deficiencies occurred until 4th July, when a sample of morning milk taken from an 8-gallon can fell to 2·9 per cent. of milk fat; on 11th July an 8-gallon can of morning milk fell below the standard to 2·9 per cent.; and on 23rd July an 8-gallon can of evening milk and a 3-gallon can of mixed milk fell below the standard for milk fat to 2·9 per cent.

As these deficiencies were slight no further action was taken, and as an "appeal" to the cows had already been made at nine milkings with good results, no "appeal" to the cows was made on these occasions.

The above herd consisted of 7 to 12 Ayrshire cows.

Herd No. 9.—108 samples of morning milk and 125 samples of evening milk were taken from this source. Table No. 1 shows that one of the samples fell below the standard of 3 per cent. for milk fat. This deficiency occurred in a can containing 4 gallons of the previous evening's milk on 19th June, the analysis being as follows:—

Milk Fat per cent.	Solids not Fat per cent.
2·8	8·7

Samples taken from a can containing 8 gallons of the previous evening's milk and a can containing 8 gallons of morning milk were found to contain 3·8 per cent. and 3·9 per cent. of milk fat respectively. The milk of the whole consignment was therefore well above the standard.

With regard to the deficiency, a visit was made to the farm with a view to getting an explanation, if possible. In answer to a query for an explanation the farmer made the significant remark that he was "whiles guilty of taking a wee thing cream for the tea."

Samples Deficient in Solids not Fat.—Table 2 shows that 75 samples were found to be deficient in solids not fat, 70 of these samples being morning milk and 5 evening milk. These deficient samples were procured from 10 different producers, only one producer complying with the standard on all occasions.

Table No. 4 shows that the deficiencies occurred in nearly all instances when the cows were outside in the months of May to September, only 10 deficient samples being obtained during the other seven months of the year.

Total Deficient Samples.—Of the **4,373** samples examined, 2 samples were found to be deficient in milk fat and in solids not fat, 12 were found to be deficient in milk fat alone, and 73 were found to be deficient in solids not fat alone, giving a total of 87 deficient

samples. The results of analyses of the deficient samples may be tabulated thus:—

DEFICIENT IN MILK FAT AND SOLIDS NOT FAT.

Morning or Evening.	Milk Fat per cent.	S.N. Fat per cent.	Number of Samples.
Morning,	2·8	8·2	1
Morning,	2·9	8·4	1
Total,	-	-	2

DEFICIENT IN MILK FAT.

Morning or Evening.	Milk Fat per cent.	S.N. Fat per cent.	Number of Samples.
Evening,	2·3	8·9	1
Morning,	2·6	8·7	1
Mixed,	2·7	8·7	1
Evening,	2·8	8·7	1
Evening,	2·8	8·8	1
Mixed,	2·8	9·0	1
Morning,	2·9	8·6	1
Mixed,	2·9	8·7	1
Evcning,	2·9	8·9	1
Mixed,	2·9	9·0	1
Evening,	2·9	9·0	1
Evening,	2·9	9·1	1
Total,	-	-	12

DEFICIENT IN SOLIDS NOT FAT.

Morning or Evening.	Milk Fat per cent.	S.N. Fat per cent.	Number of Samples.
Morning,	3·4	8·1	1
Morning,	3·9	8·1	1
Morning,	3·4	8·2	1
Morning,	3·5	8·2	1
Morning,	3·2	8·3	1
Morning,	3·3	8·3	2
Morning,	3·4	8·3	1
Morning,	3·5	8·3	1
Morning,	3·6	8·3	2
Evening,	3·7	8·3	3
Morning,	3·7	8·3	3
Morning,	3·8	8·3	2
Morning,	3·9	8·3	3
Morning,	3·0	8·4	2
Morning,	3·1	8·4	2
Evening,	3·1	8·4	1
Morning,	3·2	8·4	3
Morning,	3·3	8·4	2
Morning,	3·4	8·4	2
Evening,	3·4	8·4	1
Morning,	3·5	8·4	2
Morning,	3·6	8·4	9
Morning,	3·7	8 4	6
Morning,	3·8	8·4	10
Morning,	3·9	8·4	3
Morning,	4·0	8·4	3
Morning,	4·2	8·4	1
Morning,	4·3	8·4	1
Morning,	4·4	8·4	2
Morning,	4·7	8·4	1
Total,	-	-	73

Details regarding the Herds from which the Samples were taken.

Herd No. 1.—This herd consisted of from 40 to 50 Ayrshire cows, nearly all young stock. The feeding was dry except for a short period in the spring. The average daily yield amounted to 75 gallons. The evening milk was cooled but the morning milk was not cooled. The milking intervals were even (time—5 a.m. and 5 p.m.). The milk was delivered in cans containing quantities varying from 2 gallons to 10 gallons.

422 samples of morning milk and 394 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples fell below the standard for milk fat and Table No. 2 shows that four fell below the standard of 8·5 per cent. in solids not fat all being morning milk. The deficiencies in solids not fat occurred as follows:—May, 1; July, 2; and September, 1.

Herd No. 2.—This herd consisted of from 23 to 26 Ayrshire cows with the exception of 1 cross bred, mostly young stock. The winter feeding was wet. The average daily yield amounted to 51 gallons. There was no "cooler." The evening milk was set out in setting-out basins and poured into the cans in the morning. The morning milk went direct into separate cans. The milking intervals were uneven, viz., morning, 12½ hours; evening, 11½ hours (time—5.30 a.m. and 5 p.m.). The milk was delivered in cans containing quantities varying from 3 to 10 gallons.

333 samples of morning milk and 334 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples fell below the standard of 3 per cent. for milk fat, and Table No. 2 shows that 1 sample (morning milk) fell below the standard of 8·5 per cent. for solids not fat. The deficiency in solids not fat occurred in the month of May.

Herd No. 3.—This herd consisted of from 20 to 26 Ayrshire cows, nearly all young stock. The feeding in winter was dry in the morning and wet in the evening. The average daily yield amounted to 34 gallons. There was no "cooler"; the evening milk was poured into setting-out basins and the morning milk went straight to separate cans. The milking intervals were even (time—5 a.m. and 5 p.m.). The milk was delivered in cans containing quantities varying from 2 gallons to 8 gallons.

300 samples of morning milk and 259 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples fell below the standard for milk fat and Table No. 2 shows that 20 fell below the standard of 8·5 per cent. in solids not fat, 19 of these being morning milk. The deficiencies in solids not fat occurred as follows:—March, 1; May, 3; June, 6; July, 5; and September, 5.

Herd No. 4.—This herd consisted of from 30 to 36 cross Friesian and Ayrshire cows, nearly all young stock. The winter feeding was dry. The average daily yield amounted to 52 gallons. The evening milk was cooled, but the morning milk went direct into separate cans. The milking intervals were uneven, viz., morning, 11½ hours; evening, 12½ hours (time—5 a.m. and 5.30 p.m.). The milk was delivered in cans containing quantities varying from 4 to 12 gallons.

262 samples of morning milk and 290 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples fell below the standard of 3 per cent. for milk fat, and Table No. 2 shows that 1 sample fell below the standard of 8·5 per cent. for solids not fat. The deficiency in solids not fat occurred in the morning milk of a consignment in September.

Herd No. 5.—This herd consisted of from 18 to 20 Ayrshire cows, the ages varying. The feeding was wet mash. The average daily yield amounted to 35 gallons. There was no "cooler"; the evening milk was poured into setting-out basins and the morning milk went straight to the cans. The milking intervals were uneven, viz., morning, 12¼ hours, and evening, 11¾ hours (time—5.15 a.m. and 5 p.m.). The milk was delivered in cans containing quantities varying from 1 gallon to 10 gallons.

241 samples of morning milk and 238 samples of evening milk were taken from this source. Table No. 1 shows that 3 samples fell below the standard of 3 per cent. for milk fat. Particulars regarding these deficiencies have already been given on page 88. Table No. 2 shows that 14 samples fell below the standard of 8·5 per cent. for milk solids not fat. The deficiencies in solids not fat all occurred in the morning milk, distributed as follows:—May, 1; June, 1; July, 4; August, 3; September, 4; and November, 1.

Herd No. 6.—This herd consisted of from 7 to 12 Ayrshire cows The winter feeding was wet mash. The average daily yield amounted to 17 gallons. There was no "cooler," the evening milk being placed in setting-out basins and the morning milk despatched warm. The milking intervals were uneven, viz., morning 13 hours and evening 11 hours (time—6.15 a.m. and 5.15 p.m.). The milk was delivered in cans containing quantities varying from 1 to 8 gallons.

162 samples of morning milk and 116 samples of evening milk were taken from this source. Table No. 1 shows that 10 of the samples fell below the standard of 3 per cent. for milk fat. Particulars of these deficiencies have already been given on pages 90-96. Table No. 2 shows that 10 samples fell below the standard of 8·5 per cent. for solids not fat, these occurring in the following months:—March, 1; May, 4; July, 3; October, 1; and November, 1. These deficiencies all occurred in the morning milk with the exception of one sample taken in the month of July.

Herd No. 7.—This herd consisted of from 1 to 3 Ayrshire cows. The feeding was wet in winter. The average daily yield amounted to 5 gallons. There was no "cooler"; the evening milk was poured into setting-out basins and the morning milk went direct into separate cans. The milking intervals were even (time—7 a.m. and 7 p.m.). The milk was delivered in cans containing quantities varying from 1 gallon to 5 gallons.

119 samples of morning milk and 143 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples fell below the standard of 3 per cent. of milk fat, and only one sample fell below the standard of 8·5 per cent. of solids not fat, being a morning milk in the month of May.

Herd No. 8.—This herd consisted of from 12 to 16 Ayrshire and Cross cows, mainly young stock. The winter feeding was wet. The average daily yield amounted to 19 gallons. There was no "cooler," the evening milk being poured into setting-out basins. The morning milk went direct into separate cans. The milking intervals were uneven, viz., morning, 12½ hours; evening, 11½ hours (time—6 a.m. and 5.30 p.m.). The milk was delivered in cans containing quantities varying from 2 to 10 gallons.

124 samples of morning milk and 122 samples of evening milk were taken from this source. Tables Nos. 1 and 2 show that none of the samples fell below the standards for milk fat or solids not fat.

Herd No. 9.—This herd consisted of from 6 to 9 Ayrshire cows, nearly all young stock. The winter feeding was dry. The average daily yield amounted to 13 gallons. There was no "cooler," the evening milk being poured into setting-out basins and the morning milk went direct into separate cans. The milking intervals were even (time—6 a.m. and 6 p.m.). The milk was delivered in cans containing quantities varying from 2 to 10 gallons.

108 samples of morning milk and 125 samples of evening milk were taken from this source. Table No. 1 shows that one of the samples fell below the standard of 3 per cent. for milk fat, and Table No. 2 that 21 samples fell below the standard of 8·5 per cent. for solids not fat. Particulars are given on page 96 regarding the sample which was found deficient in milk fat.

The deficiencies in solids not fat occurred as follows:—March, 2; May, 1; July, 4; August, 3; September, 9; and October, 2. These deficiencies all occurred in morning milk, with the exception of two samples of evening milk taken in the month of September.

Herd No. 10.—This herd consisted of from 4 to 6 Ayrshire cows. The winter feeding was wet mash. The average daily yield amounted to 8 gallons. There was no "cooler," the evening milk being poured into setting-out basins, while the morning milk went into separate cans. The milking intervals were even (time—6.30 a.m. and 6.30 p.m.). The milk was delivered in cans containing quantities varying from 1 to 6 gallons.

113 samples of morning milk and 99 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples fell below the standard of 3 per cent. for milk fat, and Table No. 2 shows that 2 samples fell below the standard of 8·5 per cent. for solids not fat. The deficiencies in solids not fat occurred in consignments of morning milk in the month of June and in the month of July.

Herd No. 11.—This herd consisted of from 4 to 5 Ayrshire cows. Consignments from this source to the Creamery ceased at the beginning of April, and samples were only procured during five months of the year. No information was obtained regarding feeding, milking intervals, &c. The average daily yield amounted to 7 gallons.

31 samples of morning milk and 38 samples of evening milk were taken from this source. Table No. 1 shows that none of the samples

fell below the standard of 3 per cent. for milk fat, and Table No. 2 shows that one sample fell below the standard of 8·5 per cent. for solids not fat. The deficiency in solids not fat occurred in the evening milk in the month of February.

Conclusions.

From the information collected during the course of the investigations, I am of opinion that the 14 samples of milk which were found to be deficient in milk fat were not genuine, in respect that they had been tampered with and not milk as it came from the cow. The results of the investigation, therefore, corroborate my former opinion that the mixed milk of three or more cows does not fall below the standard of 3 per cent. of milk fat. It must also be remembered that these samples were taken at all periods of the year from herds of various sizes. The feeding in use at the various farms was also of a different nature.

Table No. 3 does not show any very great variation in milk fat throughout the different seasons of the year, and Table No. 5 does not indicate any greater variation in milk fat in cans containing one gallon than in cans containing 10-12 gallons.

Table No. 2 shows that a deficiency in solids not fat may occur in any small herd, and therefore too much reliance cannot be placed on a deficiency in solids not fat *alone* as an indication that milk has been tampered with. This remark may be applied more generally to morning milk than to evening milk as out of 2,158 samples of evening milk examined only 5 fell below the standard for solids not fat, whereas in morning milk out of 2,215 samples examined, 70 fell below the standard.

Table No. 4 shows that the bulk of the deficiencies in solids not fat occurred when the cows were outside, 65 of the deficient samples having been found during that period, as compared with 10 when the cows were inside.

Table No. 6 shows that a deficiency in solids not fat may occur in a can containing up to 12 gallons of milk.

J. Hume Patterson,
County Medical Officer.

County Offices,
Hamilton, 31st December, 1929.

TABLE No. 1.

Percentage of Milk Fat in each Sample classified according to herd.

Milk Fat per cent.	Herd No. 1.		Herd No. 2.		Herd No. 3.		Herd No. 4.		Herd No. 5.		Herd No. 6.		Herd No. 7.		Herd No. 8.		Herd No. 9.		Herd No. 10.		Herd No. 11.		Total.		
	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	
2·3	—	—	—	—	—	—	—	—	—	*1*	—	—	—	—	—	—	—	—	—	—	—	—	—	*1*	
2·6	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	
2·7	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	14
2·8	—	—	—	—	—	—	—	—	1	—	—	*2*	—	—	—	—	—	*1*	—	—	—	—	1	*3*	
2·9	—	—	—	—	—	—	—	—	—	*1*	3	*3*	—	—	—	—	—	—	—	—	—	—	3	*4*	
3·0	—	*1*	4	—	5	*2*	—	*1*	—	—	4	*6*	—	*4*	3	—	—	*2*	3	*1*	—	—	19	*17*	
3·1	3	*1*	5	*3*	5	*2*	—	—	5	*2*	2	*10*	—	*1*	—	—	2	*4*	4	—	—	—	26	*23*	
3·2	3	*1*	9	*2*	15	*2*	1	—	4	*2*	12	*15*	—	*2*	2	—	5	*5*	4	—	—	—	55	*29*	
3·3	6	*7*	20	*7*	15	*4*	6	*5*	9	*13*	9	*19*	—	*3*	2	*1*	9	*12*	6	*1*	1	—	83	*72*	
3·4	7	*11*	35	*10*	15	*12*	6	*12*	9	*18*	10	*5*	—	*4*	8	*3*	13	*18*	5	*5*	—	—	108	*98*	
3·5	29	*25*	42	*21*	26	*9*	12	*22*	13	*26*	16	*18*	3	*6*	5	*4*	14	*10*	4	*3*	1	—	165	*144*	
3·6	49	*34*	53	*22*	35	*26*	28	*32*	26	*20*	20	*11*	3	*6*	11	*5*	15	*15*	17	*7*	5	—	262	*1 8*	
3·7	50	*49*	45	*34*	34	*29*	36	*44*	29	*44*	18	*11*	3	*8*	24	*10*	9	*15*	10	*7*	3	*2*	261	*258*	
3·8	71	*60*	39	*51*	32	*35*	50	*45*	22	*40*	17	*6*	10	*6*	16	*20*	18	*15*	3	*13*	6	*4*	284	*295*	4359
3·9	54	*64*	29	*48*	45	*51*	34	*42*	27	*30*	18	*2*	10	*9*	22	*20*	10	*6*	12	*13*	6	*3*	267	*288*	
4·0	48	*40*	18	*47*	23	*31*	44	*31*	32	*17*	8	*3*	15	*11*	9	*23*	5	*9*	11	*11*	3	*6*	216	*229*	
4·1	34	*49*	12	*30*	27	*22*	18	*29*	18	*8*	11	*1*	5	*12*	7	*13*	1	*4*	17	*5*	2	*7*	152	*180*	
4·2	25	*25*	12	*27*	11	*16*	9	*10*	13	*5*	5	*1*	12	*15*	3	*17*	3	*3*	2	*7*	1	*3*	96	*129*	
4·3	23	*9*	3	*11*	6	*12*	9	*7*	15	*5*	1	*1*	15	*18*	5	*5*	1	*1*	6	*8*	2	*7*	86	*84*	
4·4	10	*9*	3	*8*	1	*3*	5	*4*	7	*1*	1	—	10	*11*	3	*1*	1	*1*	5	*5*	1	*3*	47	*46*	
4·5 & over,	10	*9*	4	*13*	5	*3*	4	*6*	11	*5*	5	*2*	33	*27*	4	—	2	*4*	4	*13*	—	*3*	82	*85*	
Total,	422	*394*	333	*334*	300	*259*	262	*290*	241	*238*	162	*116*	119	*143*	124	*122*	108	*125*	113	*99*	31	*38*	2,215	*2,158*	

TABLE No. 2.

PERCENTAGE OF SOLIDS NOT FAT IN EACH SAMPLE CLASSIFIED ACCORDING TO HERD.

Solids not Fat per cent.	Herd No. 1.		Herd No. 2.		Herd No. 3.		Herd No. 4.		Herd No. 5.		Herd No. 6.		Herd No, 7.		Herd No. 8.		Herd No. 9.		Herd No. 10.		Herd No. 11.		Total.		
	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	
8·1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	2	—	
8·2	—	—	—	—	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	
8·3	—	—	—	—	6	*1*	1	—	3	—	1	—	—	—	—	—	4	*1*	—	—	—	*1*	15	*3*	75
8·4	4	—	1	—	11	—	—	—	10	—	8	*1*	1	—	—	—	14	*1*	1	—	—	—	50	*2*	
8·5	7	*3*	3	*1*	32	*6*	4	—	12	—	15	*1*	5	*3*	—	—	15	*8*	4	*1*	—	—	97	*23*	
8·6	11	*7*	18	—	50	*25*	15	*1*	26	*4*	18	*5*	11	*3*	5	—	18	*7*	9	—	—	*1*	181	*53*	
8·7	32	*7*	22	*1*	61	*25*	34	*2*	27	*14*	30	*18*	15	*8*	7	*1*	15	*23*	16	*3*	—	—	259	*102*	
8·8	68	*28*	69	*8*	53	*46*	45	*17*	34	*24*	23	*22*	27	*13*	23	*2*	16	*16*	13	*6*	3	*1*	374	*183*	
8·9	79	*52*	67	*27*	33	*48*	47	*21*	29	*38*	32	*16*	20	*18*	17	*10*	9	*27*	15	*9*	4	*8*	352	*274*	
9·0	68	*87*	87	*51*	28	*40*	42	*31*	34	*40*	18	*20*	17	*26*	25	*8*	14	*28*	13	*14*	11	*8*	357	*353*	
9·1	81	*97*	43	*89*	20	*50*	37	*65*	27	*48*	12	*21*	10	*26*	14	*25*	2	*8*	12	*24*	9	*13*	267	*466*	4298
9·2	32	*59*	17	*78*	2	*13*	26	*53*	24	*38*	3	*8*	6	*20*	16	*23*	—	*4*	13	*14*	1	*4*	140	*314*	
9·3	26	*30*	5	*48*	2	*4*	7	*46*	9	*23*	2	*3*	2	*20*	12	*16*	—	—	8	*4*	2	*2*	75	*196*	
9·4	10	*21*	—	*20*	—	*1*	4	*44*	5	*9*	—	*1*	2	*5*	5	*24*	—	*1*	5	*16*	1	—	32	*142*	
9·5 & over	4	*2*	1	*11*	—	—	—	*10*	—	—	—	—	3	—	—	*13*	—	*1*	3	*8*	—	—	11	*45*	
Not calculated	—	*1*	—	—	—	—	—	—	—	—	—	—	—	*1*	—	—	—	—	—	—	—	—	—	*2*	
Total,	422	*394*	333	*334*	300	*259*	262	*290*	241	*238*	162	*116*	119	*143*	124	*122*	108	*125*	113	*99*	31	*38*	2,215	*2,158*	

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TABLE No. 3.

Percentage of Milk Fat in each Sample taken, shown in Monthly Periods.

Milk Fat per cent.	Jan.		Feb.		Mar.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.		
	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	M.	*E.*	
2·3	—	—	—	—	—	—	—	*1*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*1*	
2·6	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
2·7	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	14
2·8	—	*1*	—	—	—	—	—	—	—	—	—	*1*	1	—	—	—	—	—	—	—	—	—	—	*1*	1	*3*	
2·9	—	*1*	—	—	—	—	—	—	—	—	—	*1*	2	*2*	—	—	—	—	—	—	—	—	1	—	3	*4*	
3·0	3	*1*	—	—	1	*1*	1	*3*	1	—	6	*2*	4	*3*	—	*3*	—	*3*	—	*1*	2	—	1	—	19	*17*	
3·1	2	*3*	3	*1*	2	*3*	1	—	2	*1*	6	*1*	4	*7*	1	*1*	3	*2*	—	*1*	—	*2*	2	*1*	26	*23*	
3·2	6	*2*	6	*1*	2	—	4	*4*	5	*4*	7	*3*	13	*7*	5	*3*	1	*4*	—	*1*	2	—	4	—	55	*29*	
3·3	13	*5*	9	*7*	5	*5*	6	*8*	5	*8*	12	*10*	16	*13*	6	*4*	3	*2*	—	*2*	3	*3*	5	*5*	83	*72*	
3·4	15	*14*	5	*6*	11	*10*	12	*7*	3	*10*	18	*11*	16	*17*	7	*7*	5	*6*	1	*2*	4	*3*	11	*5*	108	*98*	
3·5	20	*12*	22	*11*	13	*9*	13	*19*	13	*12*	20	*17*	19	*22*	9	*7*	10	*15*	5	*9*	7	*6*	14	*5*	165	*144*	
3·6	34	*16*	23	*13*	16	*15*	17	*16*	22	*14*	28	*17*	35	*30*	24	*10*	20	*9*	8	*13*	15	*12*	20	*13*	262	*178*	
3·7	18	*15*	21	*21*	22	*25*	24	*23*	19	*13*	27	*17*	29	*39*	28	*19*	15	*23*	13	*18*	15	*18*	30	*22*	261	*253*	
3·8	22	*25*	22	*21*	19	*25*	25	*20*	25	*29*	23	*28*	24	*35*	27	*30*	22	*24*	23	*24*	27	*14*	25	*20*	284	*295*	4359
3·9	23	*31*	16	*29*	26	*22*	35	*23*	29	*21*	14	*24*	18	*21*	15	*22*	19	*22*	34	*26*	18	*24*	20	*23*	267	*288*	
4·0	17	*21*	23	*20*	14	*8*	19	*15*	30	*22*	10	*11*	10	*18*	20	*14*	15	*27*	23	*24*	17	*20*	18	*29*	216	*229*	
4·1	6	*13*	9	*13*	14	*10*	18	*17*	16	*16*	6	*20*	7	*12*	13	*14*	11	*16*	21	*16*	17	*12*	14	*21*	152	*180*	
4·2	6	*12*	6	*7*	13	*10*	6	*6*	6	*11*	4	*11*	6	*6*	15	*17*	6	*9*	15	*12*	6	*11*	7	*17*	96	*129*	
4·3	5	*5*	7	*5*	6	*8*	5	*6*	7	*7*	*3*	*5*	2	*3*	4	*11*	10	*10*	18	*4*	9	*11*	10	*9*	86	*84*	
4·4	3	*5*	6	*6*	2	*2*	2	*3*	4	*3*	1	*1*	1	*1*	4	*4*	3	*2*	8	*4*	10	*5*	3	*7*	47	*46*	
4·5 & over,	5	—	3	*4*	5	*7*	3	*13*	5	*6*	6	*6*	9	*10*	7	*12*	9	*2*	15	*6*	8	*13*	7	*6*	82	*85*	
Total,	200	*182*	181	*165*	171	*160*	191	*184*	192	*177*	191	*186*	216	*246*	185	*178*	152	*176*	184	*163*	160	*157*	192	*184*	2,215	*2,158*	

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TABLE No. 4.

PERCENTAGE OF SOLIDS NOT FAT IN EACH SAMPLE TAKEN, SHOWN IN MONTHLY PERIODS.

Solids not Fat per cent.	Jan. M.	Jan. *E.*	Feb. M.	Feb. *E.*	March. M.	March. *E.*	April. M.	April. *E.*	May. M.	May. *E.*	June. M.	June. *E.*	July. M.	July. *E.*	Aug. M.	Aug. *E.*	Sept. M.	Sept. *E.*	Oct. M.	Oct. *E.*	Nov. M.	Nov. *E.*	Dec. M.	Dec. *E.*	Total. M.	Total. *E.*		
8·1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	2	—		
8·2	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	3	—	75	
8·3	—	—	—	*1*	—	—	—	—	3	—	1	—	1	*1*	1	—	8	*1*	—	—	1	—	—	—	15	*3*		
8·4	—	—	—	—	4	—	—	—	8	—	7	—	14	*1*	5	—	8	*1*	3	—	1	—	—	—	50	*2*		
8·5	1	—	2	—	15	*2*	1	—	24	*5*	9	*2*	22	*6*	7	*3*	12	*4*	3	—	1	*1*	—	—	97	*23*		
8·6	7	*1*	1	*1*	11	*1*	12	—	35	*15*	26	*5*	31	*19*	19	*3*	24	*6*	10	*1*	5	*1*	—	—	181	*53*		
8·7	5	*2*	8	*2*	23	*6*	27	*7*	27	*21*	31	*14*	44	*35*	22	*4*	28	*7*	30	*4*	11	—	3	—	259	*102*		106
8·8	16	*5*	17	*7*	32	*17*	41	*9*	33	*20*	45	*19*	45	*39*	37	*20*	32	*27*	31	*11*	40	*9*	5	—	374	*183*		
8·9	31	*12*	26	*15*	17	*23*	18	*16*	32	*39*	30	*27*	36	*51*	39	*33*	24	*27*	49	*17*	25	*11*	25	*3*	352	*274*		
9·0	43	*32*	36	*24*	32	*37*	30	*33*	14	*13*	28	*52*	16	*42*	29	*27*	13	*20*	32	*24*	37	*25*	47	*18*	357	*353*		
9·1	41	*43*	35	*33*	24	*27*	42	*37*	6	*35*	9	*39*	4	*31*	22	*51*	1	*55*	19	*38*	24	*34*	40	*43*	267	*466*	4298	
9·2	24	*37*	36	*31*	7	*16*	14	*36*	7	*11*	5	*19*	—	*16*	4	*22*	—	*11*	6	*37*	12	*41*	25	*37*	140	*314*		
9·3	19	*19*	13	*21*	5	*18*	6	*28*	—	*9*	—	*6*	1	*4*	—	*9*	—	*7*	1	*16*	1	*17*	29	*42*	75	*196*		
9·4	11	*22*	5	*20*	—	*11*	—	*16*	2	*2*	—	*2*	—	—	—	*5*	—	*8*	—	*10*	2	*12*	12	*34*	32	*142*		
9·5 & over,	2	*9*	2	*9*	1	*2*	—	*2*	—	*1*	—	—	—	*1*	—	*1*	—	*2*	—	*5*	—	*6*	6	*7*	11	*45*		
Not calculated,	—	—	—	*1*	—	—	—	—	—	—	—	*1*	—	—	—	—	—	—	—	—	—	—	—	—	—	*2*		
Total,	200	*182*	181	*165*	171	*160*	191	*184*	192	*177*	191	*186*	216	*246*	185	*178*	152	*176*	184	*163*	160	*157*	192	*184*	2,215	*2,158*		

TABLE No. 5.

PERCENTAGE OF MILK FAT CONTENT, IN INDIVIDUAL SAMPLES, WITH THE APPROXIMATE QUANTITY IN EACH CAN.

Approximate Contents of Individual Cans.		2·3	2·6	2·7	2·8	2·9	3·0	3·1	3·2	3·3	3·4	3·5	3·6	3·7	3·8	3·9	4·0	4·1	4·2	4·3	4·4	4·5 & over.	Total.
1 gall.	M.	—	—	—	—	—	—	—	1	—	—	1	3	—	1	3	3	—	1	6	5	6	30
	E.	—	—	—	—	—	*1*	—	*1*	*2*	*2*	*6*	*4*	*2*	*3*	*2*	*3*	*1*	*5*	*4*	*2*	*4*	*42*
2 gall.	M.	—	—	—	—	—	1	1	1	4	—	8	6	3	9	13	15	11	7	8	3	15	105
	E.	—	—	—	—	—	*3*	*1*	*2*	*4*	*3*	*2*	*6*	*8*	*7*	*6*	*6*	*10*	*12*	*12*	*5*	*23*	*110*
3 gall.	M.	—	—	1	—	1	1	2	4	8	4	5	15	12	8	11	12	5	9	8	5	18	129
	E.	—	—	—	—	*2*	—	—	—	*4*	*5*	*6*	*4*	*6*	*11*	*8*	*6*	*5*	*3*	*7*	*6*	*7*	*80*
4 gall.	M.	—	—	—	--	--	5	6	8	11	12	14	23	20	16	24	15	14	5	6	8	10	197
	E.	*1*	—	—	*2*	—	*3*	*2*	*1*	*3*	*11*	*9*	*14*	*7*	*23*	*13*	*14*	*11*	*15*	*11*	*7*	*17*	*164*
5 gall.	M.	—	—	—	—	—	—	1	4	6	4	13	16	9	16	16	6	9	5	1	1	5	112
	E.	—	—	—	—	—	*1*	*4*	*3*	*7*	*9*	*6*	*10*	*9*	*7*	*18*	*12*	*10*	*4*	*7*	*1*	*2*	*110*
6 gall.	M.	—	—	—	—	—	2	2	6	8	17	21	23	23	28	30	18	10	11	7	4	2	212
	E.	—	—	—	—	—	*2*	*4*	*8*	*14*	*9*	*12*	*11*	*26*	*24*	*19*	*19*	*17*	*6*	*9*	*3*	*2*	*185*
7 gall.	M.	—	—	—	—	—	2	3	4	7	12	9	18	24	18	20	11	15	7	5	—	3	158
	E.	—	—	—	—	—	—	*2*	*3*	*3*	*7*	*5*	*10*	*13*	*14*	*19*	*18*	*8*	*8*	*2*	*3*	*1*	*116*
8 gall.	M.	—	1	—	1	2	4	5	20	13	24	29	42	43	50	30	29	25	11	7	2	5	343
	E.	—	—	—	*1*	*2*	*5*	*9*	*10*	*18*	*21*	*42*	*43*	*48*	*61*	*59*	*46*	*17*	*16*	*8*	*1*	*10*	*417*
9 gall.	M.	—	—	—	—	—	—	1	—	1	7	4	12	11	9	11	5	2	2	2	1	—	68
	E.	—	—	—	—	—	—	—	—	—	*4*	*1*	*3*	*7*	*12*	*14*	*12*	*5*	*8*	*3*	—	*4*	*73*
10 12 gall.	M.	—	—	—	—	—	4	5	7	25	28	61	104	116	129	109	102	61	38	36	18	18	861
	E.	—	—	—	—	—	*2*	*1*	*1*	*17*	*27*	*55*	*73*	*127*	*133*	*130*	*93*	*96*	*52*	*21*	*18*	*15*	*861*
Total,	M.	—	1	1	1	3	19	26	55	83	108	165	262	261	284	267	216	152	96	86	47	82	2.215
	E.	*1*	—	—	*3*	*4*	*17*	*23*	*29*	*72*	*98*	*144*	*178*	*253*	*295*	*288*	*229*	*180*	*129*	*84*	*46*	*85*	*2,158*
							14								4359								

TABLE No. 6.

PERCENTAGE OF SOLIDS NOT FAT CONTENT IN INDIVIDUAL SAMPLES, WITH APPROXIMATE QUANTITY IN EACH CAN.

Approximate Contents of Individual Cans.		8·1	8·2	8·3	8·4	8·5	8·6	8·7	8·8	8·9	9·0	9·1	9·2	9·3	9·4	9·5 and over.	Not calculated.	Total
1 gall.	M.	—	—	—	1	—	—	1	6	6	5	3	4	1	2	1	—	30
	E.	—	—	—	—	*1*	*2*	*6*	*2*	*4*	*6*	*4*	*5*	*8*	*2*	*2*	—	*42*
2 gall.	M.	—	—	1	2	4	10	16	14	17	13	18	4	3	—	3	—	105
	E.	—	—	—	—	*2*	*1*	*5*	*9*	*10*	*15*	*21*	*20*	*15*	*9*	*3*	—	*110*
3 gall.	M.	—	—	1	4	10	11	17	19	19	23	12	7	4	2	—	—	129
	E.	—	—	*1*	—	*2*	—	*5*	*13*	*10*	*10*	*16*	*14*	*4*	*4*	—	*1*	*80*
4 gall.	M.	1	—	—	6	6	19	25	26	28	38	17	20	5	5	1	—	197
	E.	—	—	—	*1*	*1*	*6*	*8*	*10*	*20*	*23*	*34*	*20*	*12*	*16*	*13*	—	*164*
5 gall.	M.	—	—	2	6	5	11	19	16	12	18	15	—	7	1	—	—	112
	E.	—	—	—	—	—	*5*	*14*	*7*	*17*	*19*	*24*	*14*	*6*	*2*	*2*	—	*110*
6 gall.	M.	1	1	1	3	12	31	28	47	34	30	14	5	1	3	1	—	212
	E.	—	—	—	—	*3*	*5*	*17*	*21*	*40*	*34*	*28*	*20*	*5*	*8*	*4*	—	*185*
7 gall.	M.	—	1	4	6	16	20	24	31	21	16	14	2	3	—	—	—	158
	E.	—	—	—	—	*2*	*6*	*10*	*22*	*25*	*16*	*23*	*6*	*5*	*1*	—	—	*116*
8 gall.	M.	—	1	5	14	29	39	42	56	57	49	27	15	7	1	1	—	343
	E.	—	—	*2*	*1*	*9*	*21*	*22*	*46*	*48*	*66*	*91*	*55*	*31*	*18*	*7*	—	*417*
9 gall.	M.	—	—	1	—	1	7	4	17	12	11	9	4	—	2	—	—	68
	E.	—	—	—	—	—	—	—	*3*	*7*	*9*	*17*	*17*	*10*	*8*	*2*	—	*73*
10 } 12 } gall.	M.	—	—	—	8	14	33	83	142	146	154	138	79	44	16	4	—	861
	E.	—	—	—	—	*3*	*7*	*15*	*50*	*93*	*155*	*208*	*143*	*100*	*74*	*12*	*1*	*861*
Total,	M.	2	3	15	50	97	181	259	374	352	357	267	140	75	32	11	—	2,215
	E.	—	—	*3*	*2*	*23*	*53*	*102*	*183*	*274*	*353*	*466*	*314*	*196*	*142*	*45*	*2*	*2,158*
				75						4298								

COUNTY OF LANARK

DISTRICT OF THE UPPER WARD.

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SANITARY INSPECTOR

1929

Medical Officer of Health, - - **County Offices, Hamilton.**
Asst. Medical Officer of Health,
Sanitary Inspector, - - } **District Offices, Lanark.**

STAFF.

Medical Officer of Health.

J. Hume Patterson, F.R.F.P.S.(G.), D.P.H.

Asst. M.O.H. and Tuberculosis Officer.

Alexander Fraser, M.D., D.P.H.

Sanitary Inspector.

William Paterson.

Asst. Sanitary Inspectors.

John Innes
(Certificated Meat Inspector).
Robert Fraser.

Nurse Health Visitors, 3.

District Hospital, Roadmeetings, Carluke.

Resident Physician, - - - - -	Dr. Effie S. Stephen.
Matron, - - - - - - -	Miss I. Ramsay.

Meat Inspector.

John Jarvie, M.R.C.V.S.

Slaughter-house Superintendents, 4.

COUNTY OF LANARK

DISTRICT OF THE UPPER WARD

Report by the Medical Officer of Health

FOR THE YEAR 1929.

Vital Statistics.

The area of the Upper Ward District is 326,803 acres and remains unchanged.

The **Population** of the district for the year 1929 has been estimated to be 48,500, an increase of 300 compared with the population of the previous year. The density of the population was *0·14* persons to the acre.

The number of inhabited houses in the district according to the Valuation Roll was 10,260, an increase of 67 compared with the year 1928. The number of uninhabited houses according to the Roll was 351, compared with 458 the previous year.

STATISTICAL TABLES.—Table A shows the birth and death-rates per thousand of the population and the infantile mortality rate per thousand births. Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause. Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the district, after correction for transfers, numbered **845**—males, 429; females, 416; of which 60—males, 32; females, 28—were illegitimate, being 7·1 per cent. of the births. The birth-rate per 1,000 of the population was **17·4,** which is the lowest rate ever recorded in the district. The birth-rate of the previous year, 18·5, was stated at that time to be the lowest recorded, and a perusal of the undernoted table shows the steady decline of the birth-rate.

The **Deaths** during the year 1929 numbered, after correction for transfers, **531,** compared with 517 in the previous year. The death-rate for this year is **10·9** per thousand of the population, as compared with 10·8 for the year 1927.

The deaths of *infants under 1 year* numbered **64,** giving an infant mortality rate of **75·7** per 1,000 births. A slight increase in the number of infant deaths is noted when compared with the previous year's figure of 61. These 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 314, constituting the natural increase of the 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.	Infants under 1 year. Death-rate.
Average. 1891 to 1900	1,222	31·6	606	15·6	116	95·5
Average. 1901 to 1910	1,209	28·9	552	13·2	104	86·5
Average. 1911 to 1920	1,143	25·9	561	12·73	91	80·23
1921	1,225	26·23	541	11·58	76	62·04
1922	1,097	23·40	584	12·45	101	92·06

Year.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants under 1 year. Deaths.	Death-rate.
1923	1,144	23·9	512	10·7	74	64·6
1924	1,119	23·1	581	12·0	86	76·7
1925	1,041	21·5	488	10·1	67	64·3
1926	999	20·7	498	10·3	52	52
1927	920	19·2	522	10·8	64	69·5
1928	888	18·5	517	10·8	61	68·7
1929	**845**	**17·4**	**531**	**10·9**	**64**	**75·7**

Deaths in relation to age and cause. Table C shows the deaths classified according to age and cause. The deaths are arranged here in recognised age periods, and the percentage proportion of deaths at each age period is given :—

Infant period, - -	Under 1 year, - -	64 deaths or	12·1%
Under school age, -	1-5 years, - - -	28 ,,	5·3%
School age, - - -	5-15 years, - - -	15 ,,	2·8%
Adolescent, - - -	15-25 ,, - - -	24 ,,	4·5%
Early mature period, -	25-45 ,, - - -	47 ,,	8·9%
Late ,, ,, -	45-65 ,, - - -	137 ,,	25·7%
Post ,, ,, -	65 years and upwards, -	216 ,,	40·7%

Infectious Diseases.—The number of deaths due to infectious diseases which are compulsorily notifiable was 74, being the same figure as in the previous year. This figure is made up as follows :—Scarlet fever, 3 ; diphtheria, 4 ; erysipelas, 2 ; tuberculosis, 26 (pulmonary, 18 ; abdominal, 2 ; meningeal, 4 ; other forms, 2) ; pneumonia (all forms), 39.

The deaths due to infectious disease not compulsorily notifiable numbered 18, as compared with 15 during the previous year, and were as follows :—Whooping-cough, 10 ; diarrhœa (under 2 years), 8.

Respiratory Diseases.—The deaths during the year (including pulmonary tuberculosis) numbered 115, being an increase of 7, as compared with the figure of the previous year. These deaths are made up as follows :—Pneumonia (all forms), 39 ; bronchitis, 23 ; influenza, 21 ; pulmonary tuberculosis, 18 ; other respiratory diseases, 14. In comparison with last year's figures an increase in the deaths

from influenza is noted. With regard to the 21 deaths from influenza the disease was complicated with other conditions in all cases, the chief complication being as follows:—Pneumonia, 7; bronchitis, 5; cardiac disease, 4; pulmonary congestion, 1; pulmonary tuberculosis, 1; bronchial asthma, 1; meningitis, 2. The following statement shows the deaths from respiratory diseases according to months:—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Pneumonia, -	3	12	4	3	3	5	3	1	—	—	1	4	39
Bronchitis, -	4	4	4	—	1	2	—	1	1	2	—	4	23
Influenza, - -	7	11	1	—	—	—	1	—	—	—	—	1	21
Pulmonary Tuberculosis, - -	1	2	—	1	2	4	—	2	2	—	2	2	18
Other Respiratory Diseases, - -	3	2	—	4	—	1	4	—	—	—	—	—	14
	18	31	9	8	6	12	8	4	3	2	3	11	115

The age periods of these deaths are to be found in Table C.

The undernoted statistics show the deaths and the death-rates per 1,000 of the population for the past 10 years.

	Pneumonia.		Bronchitis.		Influenza.		Pulmonary Tuberculosis.		Other Respiratory Diseases	
Year.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
1920 -	34	·75	22	·48	5	·11	27	·6	13	·28
1921 -	33	·71	27	·58	4	·09	20	·43	10	·2
1922 -	54	1·15	30	·64	20	·43	21	·45	19	·41
1923 -	28	·58	19	·39	2	·04	33	·69	14	·29
1924 -	40	·82	46	·95	27	·55	20	·41	20	41
1925 -	29	·60	15	·31	9	·18	22	·45	20	·41
1926 -	37	·76	28	·58	12	·24	21	·43	16	·33
1927 -	21	·44	33	·68	21	·43	28	·58	18	·37
1928 -	38	·79	25	·52	10	·21	20	·42	15	·32
1929 -	39	·80	23	·47	21	·43	18	·37	14	28

Malignant Diseases.—The deaths falling under this heading numbered 63—males, 27; females, 36—thus showing an increase in the deaths from malignant disease when compared with the figure of 47 for the previous year, and a slight preponderance of female deaths over males. The type of disease according to the certified cause of death was:—Carcinoma or cancer, 47; lympho sarcoma, 2; malignant disease, 11; epithelioma, 2; rodent ulcer, 1.

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	Pharynx, Stomach, &c.	Peritoneum, &c.	Female Genital Organs	Breast	Skin	Throat	Lungs	Kidney	Bladder	Prostate	Testicle	Cervical Glands	Parotid Gland	Mediastinum	Femur	Pelvis	Brain	Others*	Total
40-45 years,	M.		1																		1
	F.																				
45-50 ,,	M.		1																		1
	F.		1		1	1														2	2
50-55 ,,	M.	1	1						1												3
	F.					1														2	3
55-60 ,,	M.	1	1																		4
	F.		2			1	1													2	7
60-65 ,,	M.		3								1										3
	F.		3		2																6
65-70 ,,	M.		2					1												2	5
	F.		2			3															5
70-75 ,,	M.		3									1									4
	F.		7		1	1	1														9
75 years and over,	M.										1	2								2	5
	F.		3				1													1	5
All ages, ...	M.	2	12					1	1		1	3								6	26
	F.		18		4	6	1				1									7	37

* This figure includes gall bladder, 3 ; nose, 2 ; liver, 2 ; glands, 2 ; pancreas, 1 ; liver and pancreas 1 ; goitre, 1 ; jaw, 1.

Diabetes.—The deaths from this disease during the year numbered 3. In one of these deaths the complication was gangrene of the foot, the certified cause in the remaining two being solely diabetes. In none of these cases was insulin supplied by the Local Authority, and it is not known if this form of treatment had been carried out.

Supply of Insulin.—Insured persons and those in receipt of Poor Law medical relief are entitled to the provision of insulin from the Insurance Committees or Parish Councils, while those who do not come into this category can be supplied under the authority of the Public Health (Amendment) Act, 1925. The Upper Ward Scheme is similar to the scheme of the other two districts of the County, in which patients who are necessitous and whose treatment is being supervised by their doctor, can obtain a supply of insulin. Three patients have had insulin supplied to their medical attendants during the year for their treatment. The total amount of insulin thus supplied during the year amounted to 6,600 units.

Rheumatic Fever.—The deaths during the year from this disease numbered 5. The complications as noted from the certified cause of death were as follows :—Heart affection, 1 ; valvular disease of heart, 1 ; purpura hæmorrhagica, 1 ; rheumatic endocarditis, 1 ; myocarditis, 1. The age periods at death will be found in Table C.

The following statement shows the number of deaths per 10,000 of the population for the past five years :—

Year.	Number of Deaths.	Death-rate per 10,000 of the Population.
1925, ...	3	·62
1926, ...	2	·41
1927, ...	7	1·45
1928, ...	2	·41
1929, ...	5	1·03

TABLE B.—UPPER WARD.—Year 1929.—Population, Births, and Deaths in each Registration District, with Deaths classified according to cause.

REGISTRATION DISTRICTS	Estimated Population, 1929.	Births.	Typhoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping-Cough.	Diphtheria.	Influenza.	Cerebro-Spinal Fever.	Erysipelas.	Pulmonary Tuberculosis.	Meningeal Tub.	Abdominal Tub.	Other Tuberculosis.	Septicæmia and Pyæmia.	Rheumatic Fever.	Malignant Diseases.	Meningitis (simple).	Cerebral Hæmorrhage.	Encephalitis Lethargica.	Other Nervous Diseases.	Organic Heart Disease.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all forms)	Other Respiratory Diseases.	Diabetes.	Pernicious Anæmia.	Dis. of Ductless Glands.	Appendicitis and Typhlitis.	Liver Diseases (not malignant).	Other Digestive Diseases.	Nephritis and Bright's Disease.	Dis. of Gen. Urin. System.	Dis. of Female Gen. Organs.	Puerperal Sepsis.	Other Dis. and Acc. of Pregnancy.	Congenital Hydrocephalus.	Congenital Heart.	Congenital Malformations.	Infantile Convulsions	Diarrhœa (under 2 years)	Premature Birth.	Injury at Birth.	Atrophy, Debility, and Marasmus	Atelectasis.	Suffocation—Overlying.	Rickets.	Other Dis. peculiar to early infancy	Syphilis.	Violence.	Suicide.	Other Defined Diseases.	Ill-defined Diseases	Total Deaths.
Biggar,	800	16	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	10
Carluke,	11,500	224	...	...	...	2	5	3	7	...	1	6	1	...	1	1	2	17	...	11	...	1	17	2	5	3	6	1	1	...	1	1	3	2	...	...	...	1	...	...	...	2	...	3	...	...	...	...	...	...	...	...	8	...	12	...	133
Carmichael,	1,940	28	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	1	2	2	...	...	3	..	...	3	1	...	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	22
Carnwath,		30	...	...	...	...	...	...	...	...	...	1	...	...	..	...	.	2	...	2	...	1	4	...	...	1	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	18
Forth,	5,950	69	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	6	...	5	...	...	3	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	5	...	...	...	...	...	...	1	1	28
Tarbrax,		13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	2	...	...	3	...	...	...	...	...	...	1	...	1	1	...	1	...	...	...	...	2	...	1	...	...	...	...	...	...	1	...	14
Carstairs,	2,400	33	...	...	...	...	...	1	3	...	...	1	...	...	...	...	...	7	...	3	...	1	5	1	...	2	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
Covington,	450	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	9
Crawford,	1,900	10	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	2	1	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	12
Leadhills,		8	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Crawfordjohn,	640	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	7
Coulter,	370	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	5
Dolphinton,	230	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4
Douglas,	3,350	65	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	4	...	3	...	...	4	1	3	4	...	1	...	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	32
Dunsyre,	160	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Lamington,	290	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	:	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2
Lanark,	2,950	48	...	...	...	...	1	...	...	...	...	3	2	1	...	..	1	5	...	4	...	...	3	3	3	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	5
Lesmahagow,		158	...	..	...	...	1	...	1	...	1	4	..	...	...	1	...	5	4	4	...	1	14	4	7	12	2	1	1	...	2	...	3	2	2	1	...	...	1	...	...	1	1	...	...	...	...	...	...	...	2	...	7	...	42
Kirkfieldbank,	13,590	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	...	3	...	...	...	...	...	...	3	...	...	...	...	...	...	1	1	...	3	...	...	...	..	..	...	2	...	9	..	90
Coalburn,		47	...	...	...	1	2	...	3	...	...	1	...	...	...	...	1	2	...	3	...	1	3	1	...	2	1	...	...	...	...	...	3	1	2	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	4	...	16
Libberton,	550	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25
Pettinain,	290	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Symington,	600	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Walston,	230	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	7
Wiston,	400	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Totals,	48,500	845	...	...	...	3	10	4	21	...	2	18	4	2	2	2	5	63	6	45	...	6	70	16	23	39	14	3	4	1	4	2	19	11	4	3	...	5	2	...	3	...	8	14	...	16	...	...	...	...	...	21	...	55	1	531

TABLE C.—UPPER WARD.—Year 1929.—Deaths classified according to Cause and Age Periods.

Cause of Death.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	Nett Deaths at Different Age Periods.																
					Weeks.				Months.				Years.								
					-1	1-2	2-3	3-4	1-3	3-6	6-9	9-12	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-
Typhoid Fever,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever,	3	...	...	3	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...
Whooping-Cough,	10	1	1	10	...	...	...	1	2	2	3	1	1	...	...	...	...	...	...	..	...	...
Diphtheria,	7	...	3	4	...	...	...	...	...	...	...	...	1	2	1	...	...	...	...	...	...	...
Influenza,	21	...	...	21	...	...	...	...	...	...	...	...	2	...	1	...	4	2	3	2	3	4
Cerebro-Spinal Fever,	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas,	1	1	...	2	...	...	...	...	1	..	...	...	...	...	...	...	...	...	...	...	1	...
Pulmonary Tuberculosis,	20	3	5	18	...	...	...	...	...	...	...	...	...	...	...	2	6	3	3	3	1	...
Meningeal ,,	3	1	...	4	...	...	...	...	...	...	...	...	1	1	1	1	...	...	...	...	...	...
Abdominal ,,	2	...	...	2	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...
Other ,,	2	...	...	2	...	...	...	...	...	..	...	...	...	...	...	1	1	...	...	...	...	...
Septicæmia and Pyæmia,	3	...	1	2	...	...	..	...	...	1	...	...	...	..	...	...	...	...	...	1	...	...
Rheumatic Fever,	5	...	...	5	...	...	...	...	...	...	...	...	...	1	1	1	...	1	1	...	...	...
Malignant Diseases,	53	11	1	63	...	...	...	...	...	...	...	...	...	...	...	...	...	1	9	20	23	10
Meningitis (simple),	6	...	...	6	...	..	...	...	...	3	...	...	3	...	...	...	...	...	...	...	...	...
Cerebral Hæmorrhage,	47	1	3	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	11	18	11
Encephalitis Lethargica,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Nervous Diseases,	8	2	4	6	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	2	...
Organic Heart Disease,	69	7	6	70	...	...	...	...	...	...	...	...	...	...	...	2	...	5	9	17	15	22
Other Circulatory Diseases,	14	3	1	16	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	4	6	3
Bronchitis,	20	3	...	23	...	...	...	...	1	...	...	...	4	...	...	...	...	1	...	4	5	8
Pneumonia (all forms),	35	6	2	39	...	...	...	...	...	2	2	...	7	...	...	3	2	4	4	3	7	5
Other Respiratory Diseases,	13	2	1	14	...	...	...	...	...	1	...	...	1	...	...	1	...	...	2	3	3	3
Diabetes,	3	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...
Pernicious Anæmia	5	1	2	4	...	..	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	...
Dis. of Ductless Glands,	1	...	...	1	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Appendicitis and Typhlitis,	1	3	...	4	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1	...
Liver Diseases (not malig.),	2	...	...	2	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	1	1
Other Digestive Diseases,	11	8	...	19	1	...	...	...	...	...	...	...	1	2	...	3	1	1	1	1	4	4
Nephritis and Bright's Disease,	10	1	...	11	..	...	...	...	...	..	...	...	...	...	...	...	...	1	1	3	4	2
Dis. of Gen.-urin system,	2	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Dis. of Female Gen. organs,	1	2	...	3	...	...	...	...	..	...	...	...	...	...	...	...	...	...	3	...	...	...
Puerperal Sepsis,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
Other Dis. & Acc. of Pregnancy,	2	3	...	5	...	...	..	...	...	...	...	...	...	...	...	1	2	2	...	...	...	...
Congenital Hydrocephalus,	2	...	...	2	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
,, Heart,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
,, Malformations,	3	...	...	3	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Infantile Convulsions,	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa (under 2 years),	8	...	...	8	...	...	...	...	3	3	...	1	1	...	...	...	...	...	...	...	...	...
Premature Birth,	13	1	...	14	12	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, & Marasmus,	14	2	...	16	9	2	1	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation—Overlying,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis. peculiar to early Infancy,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Violence,	16	8	3	21	...	...	...	...	...	1	...	...	1	3	...	4	2	3	1	2	3	1
Suicide,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases,	47	9	1	55	...	1	...	...	...	...	...	...	...	...	...	3	...	2	4	7	10	28
Ill-Defined Diseases,	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Totals,	485	81	35	531	25	5	1	4	9	13	5	2	28	11	4	24	19	28	52	85	110	106

PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group 1 includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Scottish Board of Health, and Group II, not compulsorily notifiable diseases. The diseases included in these groups are as follows :—

GROUP I.

(*a*)	(*b*)	(*c*)
	August, 1906	1st August, 1912
Smallpox	Cerebro-spinal Menin-	Pulmonary Tuberculosis
Diphtheria	gitis	1st July, 1914
Scarlet Fever	24th October, 1912	All forms of Tuberculosis
Typhus Fever	Tetanus	1st November, 1918
Typhoid Fever	Anthrax	Ophthalmia Neonatorum
Puerperal Fever	Glanders	1st August, 1919, and
Erysipelas	Actinomycosis	21st November, 1927
		Malaria
		Dysentery
		Acute Influenzal-Pneumonia
		Acute Primary do.
		21st December, 1925
		Infective Jaundice
		Infantile Paralysis
		Polio-encephalitis
		Encephalitis Lethargica
		26th March, 1927
		Chickenpox.
		1st October, 1929
		Puerperal Pyrexia

GROUP II.

*Measles	Mumps	Ringworm
German Measles		Scabies
*Whooping-Cough		

* Primary cases of those diseases under five years of age have been made notifiable under the Maternity and Child Welfare Scheme.

Table D shows the number of cases of notifiable infectious disease occurring in each parish, and in the following paragraphs the prevalence and distribution of each disease is summarised.

TABLE D.—Number of Cases of Infectious Sickness recognised in each Parish during 1929.

PARISH	Scarlet Fever.	Diphtheria.	Erysipelas.	Acute Primary Pneumonia.	Influenzal-Pneumonia.	Chickenpox.	Puerperal Fever.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Cerebro-spinal Meningitis.	Enteric Fever.	Paratyphoid Fever.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Total.
Biggar,	—	—	1	1	—	1	—	—	—	—	—	—	—	—	—	3
Carluke,	55	45	9	12	1	110	—	—	—	—	—	—	1	9	5	247
Carmichael,	4	2	1	1	2	2	—	—	—	—	—	—	—	1	1	14
Carnwath,	17	2	—	8	10	47	1	—	—	1	—	—	1	1	3	91
Carstairs,	7	4	2	2	3	4	1	—	—	—	—	1	3	1	1	29
Covington,	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Crawford,	3	1	1	1	—	—	—	—	—	—	—	—	—	—	—	6
Crawfordjohn,	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	2
Coulter,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dolphinton,	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Douglas,	22	—	3	1	—	19	1	—	1	—	—	—	—	3	—	50
Dunsyre,	2	—	—	—	1	1	—	—	—	—	—	—	—	—	1	5
Lamington,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lanark,	10	9	4	3	7	34	—	1	—	—	1	—	—	4	1	74
Lesmahagow,	39	57	9	47	11	11	2	—	—	—	1	—	—	5	8	189
Libberton,	—	—	—	1	—	10	—	—	—	—	—	—	—	—	—	11
Pettinain,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Symington,	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	2
Walston,	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Wiston,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total,	160	123	30	77	35	239	5	1	1	2	2	1	5	26	22	729

Note.—There was also 1 case of Dysentery and 1 case of Actinomycosis in Lesmahagow Parish.

The following tabular statement shows the housing in relation to notification of infectious disease:—

Disease.	1 apt.	2 apts.	3 apts.	4 apts.	5 apts.	6 apts. and over	Inst.	Total Cases.
Scarlet Fever,	13	76	35	14	4	15	3	160
Diphtheria,	9	60	27	11	3	6	7	123
Puerperal Fever,	1	2	1	—	1	—	—	5
Ophthalmia Neonatorum,	—	—	1	—	—	—	—	1
Erysipelas,	3	9	8	4	3	2	1	30
Acute Primary Pneumonia,	5	37	17	4	3	8	3	77
Influenzal Pneumonia,	2	13	6	3	1	1	9	35
Encephalitis Lethargica,	—	2	—	—	—	—	—	2
Cerebro-spinal Meningitis,	—	1	1	—	—	—	—	2
Enteric Fever,	—	1	—	—	—	—	—	1
Dysentery,	—	—	1	—	—	—	—	1
Paratyphoid Fever,	—	4	—	—	—	1	—	5
Chickenpox,	16	116	56	5	4	3	39	239
Actinomycosis,	—	1	—	—	—	—	—	1
Puerperal Pyrexia,	—	—	—	—	—	—	1	1
Pulmonary Tuberculosis,	3	11	2	1	5	1	3	26
Non-Pulmonary Tuberculosis,	1	14	4	1	1	—	1	22

Smallpox.

No case was reported during the year.

Vaccination (Scotland) Act, 1907.—The returns from the Registrars showing the number of statutory declarations of conscientious objection to vaccination are tabulated here according to registration district.

	Year 1925.	Year 1926.	Year 1927.	Year 1928.	Year 1929.
Biggar, - - -	—	1	—	—	—
Carluke, - - -	108	81	82	91	81
Carmichael, - -	25	24	26	18	24
Carnwath, - - -	11	10	7	11	14
Forth, - - - -	47	46	53	44	46
Tarbrax, - - -	24	19	19	7	4
Carstairs, - - -	6	7	5	8	10
Covington, - - -	3	—	—	1	—
Crawford, - - -	4	4	6	2	1
Leadhills, - -	3	4	5	3	4
Crawfordjohn, - -	1	2		2	2
Coulter, - - -	—	—	—	—	—
Dolphinton, - - -	—	—	—	—	—
Douglas, - - -	34	25	27	31	29
Dunsyre, - - -	—	1	1	—	1
Lamington, - - -	—	1	1	1	2
Lanark, - - -	2	11	8	6	12
Lesmahagow, - -	88	55	46	54	49
Kirkfieldbank, - -	7	7	—	9	6
Coalburn, - - -	34	26	20	20	19
Libberton, - - -	—	1	1	1	3
Pettinain, - - -	—	—	1	1	2
Symington, - - -	—	—	—	2	—
Walston, - - -	—	1	—	1	—
Wiston, - -	—	1	—	—	—
	397	327	310	313	309

Diphtheria.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Average, 1892-95,	78	14	17·9	2·0	3·7
Average, 1896-1900,	89	6	6·7	2·2	1·4
Average, 1901-05,	66	7	10·6	1·6	1·6
Average, 1906-10,	156	7	4·4	3·6	1·7
Average, 1911-15,	95	8	8·4	2·1	1·8
Average, 1916-20,	82	7	8·5	1·8	1·5
Average, 1921-25,	78	4	5·6	1·6	1·2
1926,	107	4	3·7	2·2	0·8
1927,	83	4	4·8	1·7	0·8
1928,	88	1	1·1	1·8	0·2
1929,	123	4	3·2	2·5	0·8

Deaths.—Four deaths from this disease occurred during the year, being an increase of 3 as compared with the previous year. These four deaths occurred in the District Hospital, Roadmeetings.

Notifications.—The total number of notifications received during the year amounted to 123, showing an increase of 35 in comparison with the number of cases notified in 1928. Of the 123 cases notified, 115, or 93·5 per cent., were removed to hospital. The monthly distribution of the cases throughout the year was as follows :—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
5	7	8	3	17	12	9	15	12	6	14	15

It will be seen that the prevalence of the disease was greatest during the third and fourth quarters of the year.

The age incidence of the cases and deaths was as follows :—

Ages,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55
Cases,	—	18	54	20	19	6	4	2
Deaths,	—	1	2	1	—	—	—	—

Table D shows the number of cases notified in each parish, from which it will be seen that the greatest number was notified in the Parish of Lesmahagow. The various localities are here detailed :—

Carluke Parish.—Carluke, 31; Hallcraig, 1; Law, 9; Westerhouse, 4.

Carmichael Parish.—Carmichael, 1; Douglas Water, 1.

Carnwath Parish.—Forth, 2.

Crawford Parish.—Crawford, 1.

Crawfordjohn Parish.—Crawfordjohn, 1.

Lanark Parish.—New Lanark, 6; Institution, 3.

Lesmahagow Parish.—Lesmahagow, 8; Coalburn, 23; Auchenheath, 4; Blackwood, 3; Kirkmuirhill, 7; Draffan, 1; Devonburn, 1; Auchlochan, 1; Kirkfieldbank, 4; Byretown, 1; Birkwood, 3.

Walston Parish, 2.

Return Cases.—2 cases were counted as return cases during the year. The period of time elapsing between the infecting case and the return case being (1) 4 days; (2) 15 days.

Dairy Farms.—5 cases (all children) occurred at 2 dairy farms. All of these cases were removed to hospital. 3 of these cases gave "positive swabs," but showed no clinical signs of diphtheria.

Carluke.—Towards the end of the year several cases occurred in Carluke, and in each instance the patients were in a certain class in the junior school. This school was visited and all the scholars in this particular class were swabbed. 35 scholars were swabbed and of these 9 were reported from the laboratory as positive. These were immediately excluded from school, and the incidence of the disease at once diminished.

Birkwood Institution, Lesmahagow.—A patient from this Institution was notified and sent to hospital as suffering from diphtheria. On examination in hospital there was no evidence of clinical diphtheria, but a positive swab had been obtained before admission. Following this first case other two children were notified as suffering from diphtheria (a positive swab having been obtained), but as no clinical evidence was present these two were isolated at the Institution.

All contacts were swabbed, and of 80 swabs 30 were returned as positive. The positive throats were treated, and eventually negative swabs obtained. At no time was there any appearance of clinical diphtheria.

Diphtheria Anti-toxin.—Of the 123 cases notified, 10 of these received anti-toxin from the hands of the medical practitioner before the removal to hospital.

In connection with the bacteriological examination for the presence of diphtheria bacillus in the throat, out of the 123 notified cases, 68 gave positive swabs and 4 were returned as negative, while in 51 cases no swab was obtained before admission to hospital.

Scarlet Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and the respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Average, 1892-95, -	299	7	2·3	7·88	1·77
Average, 1896-1900, -	326	9	2·7	8·27	2·28
Average, 1901-05, -	187	4	2·1	4·56	0·97
Average, 1906-10, -	235	3	1·2	5·5	0·70
Average, 1911-15, -	264	5	1·9	6·03	1·14
Average, 1916-20, -	156	2	1·5	3·4	0·5
Average. 1921-25, -	312	5	1·4	6·5	1·06
1926,	148	1	0·6	3·0	0·2
1927, -	108	—	—	2·2	—
1928, -	268	4	1·5	5·5	0·8
1929, -	160	3	1·8	3·3	0·6

Deaths.—3 deaths occurred from this disease during the year—1 at home and 2 in the District Hospital, Roadmeetings.

Notifications.—The total number of cases notified during the year amounted to 160, showing a decrease of 108 in comparison with the number of cases notified during the year 1928. Of the 160 cases notified, 136, or 85 per cent., were removed to hospital. The monthly distribution of the cases throughout the year was as follows:—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
25	18	28	11	10	6	10	11	13	12	13	3

It will be seen that the prevalence of the disease was greatest during the first quarter of the year.

The age incidence of the cases and deaths was as follows:—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55
Cases,	4	42	59	22	19	12	3	1
Deaths,	—	3	—	—	—	—	—	—

Table D shows the number of cases occurring in each parish, and it will be noted that the disease was prevalent in the most populous areas.

The following statement shows the localities in which the cases occurred:—

Carluke Parish.—Carluke, 40; Braidwood, 9; Law, 5; Waygateshaw, 1.

Carmichael Parish.—Douglas Water, 4.

Carnwath Parish.—Carnwath, 1; Haywood, 2; Forth and Wilsontown, 7; Auchengray, 1; New Woolfords, 2; Westmains, 2; Westyett, 2.

Carstairs Parish.—Carstairs Village, 2; Carstairs Junction, 4; Ravenstruther, 1.

Crawford Parish.—Leadhills, 3.

Douglas Parish.—Douglas, 12; Douglas West, 5; Glespin, 3; Institution, 2.

Dunsyre Parish.—Kirkland, 1.

Lanark Parish.—Lanark, 1; New Lanark, 5; Cleghorn, 2; Netherton, 1; Institution, 1.

Lesmahagow Parish.—Lesmahagow, 10; Kirkmuirhill, 2; Coalburn, 17; Kirkfieldbank, 1; New Trows, 1; Auchenheath, 8.

Walston Parish.—Melbourne, 1.

Return Cases.—1 case was counted as a return case during the year, the period of time elapsing between the date of discharge of the infecting case and the sickening of the return case being 3 days.

Dairy Farms.—10 cases of the disease occurred (4 adults and 6 children) on 7 farms. Immediate removal of the cases to hospital was obtained in all instances, and, after the usual examination of the inmates and disinfection of the premises, the milk supply was continued.

Enteric Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and the respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Average, 1892-95,	46·2	5·7	12·4	1·2	1·5
Average, 1896-1900,	27·2	4·8	17·6	0·6	1·2
Average, 1901-05, -	20·2	3·8	18·88	0·4	0·9
Average, 1906-1910, -	12·6	2·2	17·4	0·3	0·5
Average, 1911-15, -	6	1·4	23·3	0·13	0·3
Average, 1916-20, -	3·4	0·2	5·9	0·01	0·02
1921-25, -	0·8	0·2	25·0	0·01	—
1926-28, -	—	—	—	—	—
1929, -	*1	—	—	—	—

* This case was re-diagnosed in hospital as Paratyphoid "B."

Paratyphoid Fever.

Five cases of paratyphoid "B" were notified during the year, which, with the case notified as enteric fever and re-diagnosed paratyphoid "B," gives a total of 6 cases. The parishes in which the cases occurred were as follows :—Carstairs, 4; Carnwath, 1; Lanark, 1. Five households were affected, only one secondary case occurring. Three cases occurred in the month of April and three in May. In spite of exhaustive inquiries the source of infection was not discovered, and the individual households had no contact with one another.

All cases were removed to hospital and made good recoveries, though one case was complicated by periostitis. No deaths occurred.

The age incidence of the cases was as follows :—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65
Cases, -	—	—	1	—	3	—	—	1	1

Cerebro-Spinal Meningitis.

Two cases were notified during the year. In each case the diagnosis was altered in hospital to (1) acute rheumatism; (2) post-influenzal meningitis. The bacteriological examination of the cerebro-spinal fluid proved negative in each case.

Encephalitis Lethargica.

Two cases were reported during the year. Both cases were admitted to the District Hospital, Roadmeetings, where the diagnosis in each case was revised—Cerebral hæmorrhage, 1; cerebral thrombosis, 1.

Dysentery.

One case was notified during the year. The illness and symptoms were of short duration, but bacteriological examination showed the presence of dysenteriæ (Flexner). Further bacteriological examination proved negative.

Actinomycosis.

One case was notified during the year. This patient had suffered from pneumonia and later developed an empyema and was admitted to a general hospital for operation. It was stated that the streptothrix was discovered when in hospital. Later examination of the sputum proved negative.

Pneumonia.

The notifications of acute primary pneumonia numbered 77, while 35 cases of influenzal pneumonia were notified, the total number of pneumonia cases showing an increase of 44 compared with the year 1928. The age periods of incidence are as follows :—

Acute Primary Pneumonia—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-75	75
Cases, -	2	10	17	6	13	1	9	5	12	2

Influenzal Pneumonia—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-75	75
Cases, -	1	4	5	2	8	4	3	3	3	2

13 cases of acute primary pneumonia and 12 cases of influenzal pneumonia were removed to hospital.

The death-rate and the number of deaths will be found under the heading of respiratory diseases, while the age periods of deaths will be found in Table C.

Erysipelas.

Thirty cases were notified during the year, one of which was removed to hospital. Two deaths occurred.

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	75
Cases, -	—	1	1	—	4	1	6	7	5	4	1
Deaths,	1	—	—	—	—	—	—	—	—	1	—

The distribution of cases according to parish will be found in Table D.

Puerperal Fever and Puerperal Pyrexia.

Puerperal Fever.—5 cases of this disease were notified during the year by the medical practitioners in attendance. One case was re-diagnosed in hospital as profound anæmia, leaving a total of 4 cases. Three of the notified cases were treated in hospital, while 2 were treated at home. No deaths occurred.

Puerperal Pyrexia.—1 case was notified during the year.

Further reference with regard to these diseases will be found in the section of the report dealing with Maternity and Child Welfare.

Ophthalmia Neonatorum.

One case was notified during the year by the medical practitioner in attendance. The case was not removed to hospital. Further reference will be found in the section dealing with Maternity and Child Welfare.

Chickenpox.

The Public Health (Chickenpox) Regulations (Scotland), 1927, dated 25th March, 1927, made this disease notifiable forthwith. The regulations were to have effect until 30th September, 1927, but were continued until 31st December, 1928. They are again continued and are now to remain in force until 31st December, 1930.

239 cases of the disease were notified. The type of disease was very mild, and the distribution of cases in the various parishes will be found in Table D.

The age incidence of the cases was as follows:—

Age,	-1	1-5	5-10	10-15	15-25	25-35
Cases,	11	90	128	7	2	1

Measles and Whooping-cough.

Measles.—There was a very marked decrease in the number of cases which came to the knowledge of the department, 55 cases occurring in comparison with 510 during the previous year. These cases occurred in the following parishes:—Carluke, 7; Carmichael, 1; Carnwath, 1; Carstairs, 1; Douglas, 44; Lesmahagow, 1.

Deaths.—No deaths occurred from measles during the year.

Whooping-cough.—There was a definite increase in the number of cases of this disease occurring during the year. In all 403 cases came to the knowledge of the department compared with 142 cases during the previous year. These were distributed as follows in the several parishes:—Carluke, 96; Carmichael, 4; Carstairs, 5; Carnwath, 6; Crawford, 1; Douglas, 36; Lanark, 21; Lesmahagow, 233; Pettinain, 1.

Deaths.—10 deaths occurred from this disease during the year in the following parishes:—Carluke, 5; Lesmahagow, 3; Douglas, 1; Lanark, 1.

Further reference to these diseases will be found in the section of the report dealing with Maternity and Child Welfare.

Ringworm.

Four cases of ringworm of the scalp were treated at the County Hospital, Motherwell.

School Closure.

No schools were closed during the year on account of infectious disease. Several schools, however, were visited and scholars inspected with a view to detecting unrecognised cases of infectious disease.

Visits of inspection were made to Blackwood, Douglas, Lanark, Walston, and Carluke Junior Schools. The scholars in certain classes in Blackwood, Lanark, and Carluke Junior Schools were swabbed on account of the presence of cases of diphtheria.

Anthrax.

Nine outbreaks of this disease in cattle were reported during the year and occurred in the following parishes:—Carmichael, 1; Carnwath, 1; Carstairs, 1; Coulter, 1; Lanark, 1; Lesmahagow, 1; Libberton, 3. The animals affected numbered 9. No cases of suspicious illness occurred amongst those persons in contact with the diseased animals.

The outbreak occurring in Coulter Parish was at the Parish Church Glebe, Coulter, but the premises of the owners are situated in the County of Peebles.

Venereal Diseases.

During the year 12 new cases were reported (gonorrhœa, 6; syphilis, 4; N.V.D., 2). Of these, 2 cases (syphilis, 1; N.V.D., 1) received hospital treatment, while the remaining 10 (gonorrhœa, 6; syphilis, 3; N.V.D., 1) received outdoor treatment at the various clinics. The total attendances at the various clinics numbered 130—gonorrhœa, 91; syphilis, 30; others, 9. Specimens of blood for the Wasserman reaction numbered 49, of which 8 were reported positive and 41 negative, while of 16 bacteriological tests for the presence of gonococci, 14 were returned as negative and 2 as positive.

Refractories Industries (Silicosis) Scheme.

There are no premises now under this scheme in the Upper Ward District.

Tuberculosis.

The Burghs of Biggar and Lanark being included in the Upper Ward District Tuberculosis Scheme, statistics relating to the three areas are given separately.

Upper Ward.—*Mortality.*—The deaths from all forms of tuberculosis numbered 26, and were classified as follows:—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-65	65	Total.
Pulmonary,	—	—	—	—	2	6	3	6	1	18
Abdominal,	—	1	1	—	—	—	—	—	—	2
Meningeal,	—	1	1	1	1	—	—	—	—	4
Other Forms,	—	—	—	—	1	1	—	—	—	2

The deaths will be found classified according to parishes in Table B.

Death-rates.—The following tabular statement shows the average quinquennial death-rates per 10,000 of the population since 1891-1925, along with the cases notified and deaths recorded, and also for the years 1926-27-28 and 1929 :—

	Pulmonary.			Non-Pulmonary.		
Annual Average—	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.
1891-95, -	—	45	12·0	—	23	6·2
1896-1900, -	—	47	11·9	—	17	4·4
1901-05, -	—	43	10·5	—	20	4·9
1906-10, -	36	35	8·1	—	15	4·4
1911-15, -	50	32	7·0	—	13	2·8
1916-20, -	43	28	6·3	25	15	3·3
1921-25, -	42	23	4·8	32	14	2·9
1926, - -	32	21	4·3	32	11	2·2
1927, - -	44	28	5·8	24	10	2·1
1928, - -	30	20	4·4	31	9	1·9
1929, - -	26	18	3·7	22	8	1·6

The death-rate from all forms of the disease was ·54 per 1,000 of the population. From the above table it will be noted that the death-rates per 10,000 for both forms of the disease still show a steady decline.

Notifications.—The number of cases of tuberculosis notified during the year amounted to 48—pulmonary, 26; non-pulmonary, 22, showing a decrease of 14 in the total notifications as compared with the previous year. Of the 26 new pulmonary cases none had been previously notified. Of these, 7 died and 3 left the district, while in 2 cases the diagnosis was not established, leaving 14 new cases on the register at the end of the year. Of the 22 non-pulmonary cases notified, no cases had been previously notified. Of these, 3 died and none left the district, while in 2 cases the diagnosis was not established, leaving 17 new cases on the register at the end of the year. The location of the disease in the 22 notified non-pulmonary cases was as follows :— Abdominal, 7; joints and bones, 3; cervical glands, 7; lupus, 2; meningeal, 1; others, 2.

The age incidence of the total cases of tuberculosis notified during the year was as follows :—

Age,	-1	1-5	5-15	15-25	25-45	45-65	65 and over.	Total.
Pulmonary,	—	—	3	4	14	5	—	26
Meningeal,	—	—	—	1	—	—	—	1
Abdominal,	—	2	2	1	—	—	—	5
Other Forms,	2	2	4	4	4	—	—	16
Total, -	2	4	9	10	18	5	—	48

Housing in relation to Notification.—The following statement shows the number of cases notified from the various sizes of houses :—

	1 apt.	2 apts.	3 apts.	4 apts.	5 apts.	Over 6 apts.	Institution	Total.
Pulmonary, - - -	3	11	2	1	5	1	3	26
Non-Pulmonary, - -	1	14	4	1	1	—	1	22

Age and Sex Distribution.—The following table shows the age and sex distribution of the notified cases of pulmonary and non-pulmonary disease :—

Pulmonary tuberculosis—26 notified—

Age,	-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Males,	—	1	1	2	4	3	2	—	13
Females,	—	—	1	2	6	1	3	—	13

Non-pulmonary tuberculosis—22 notified—

Age,	-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Males,	3	2	1	2	—	1	—	—	9
Females,	3	3	—	4	2	1	—	—	13

Duration of Illness.—The duration of illness according to the patient's own estimate at the time of notification was as follows :—

Months,	-1	1-2	2-3	3-6	6-9	9-12	12-18	18-24	24 and over.	Total.
Pulmonary, ...	2	4	2	2	3	1	2	—	10	26
Non-Pulmonary,	4	2	—	5	4	2	1	—	4	22

Deaths in relation to Notification.—Of the 26 deaths from tuberculosis, 18 were of the pulmonary type and 8 were of the non-pulmonary type.

Pulmonary.—Of the 18 deaths 13 had been notified, leaving 5 not notified. Of the total deaths, 8 occurred in institutions as follows :—Roadmeetings Sanatorium, 5 ; Hartwood Asylum, 2 ; Larbert Asylum, 1.

Non-pulmonary.—8 deaths occurred from this type of disease. Of these, 4 were notified (1 after death), leaving 4 not notified. Four deaths occurred in institutions as follows:—Lady Home Hospital, Douglas, 1; Roadmeetings Sanatorium, 1; St. Mary's Hospital, Lanark, 1; Smyllum Orphanage, Lanark, 1.

The period elapsing between notification and death was:—Under 1 month, 1; 1-3 months, nil; 3-6 months, nil; 6-9 months, 1; 9-12 months, nil; 1-2 years, 1; over 2 years, nil. Notified after death, 1.

Occupation of Notified Cases.—The following gives the notified cases classified according to occupational groups:—

	Pulmonary.	Non-Pulmonary.
Domestic Work.		
Housewives, ...	9	2
Domestics, ...	—	3
Children, ...	—	7
Scholars, ...	3	5
Miners, etc.		
Miners, ...	1	1
Factory and Workshop.		
Shoemaker, ...	1	—
Factory Workers, ...	2	2
Other Occupations, ...	7	2
No Occupation, ...	3	—
Total, - -	26	22

Total Cases on Record.—The total cases on record as shown in the following statement amounted to 164—pulmonary, 82; non-pulmonary, 82.

CHANGES DURING 1929.

	Cases in District 1-1-29.	New Cases.	Total on Record.	Left District.	Died.	Disease apparently Arrested	Diagnosis Revised.	Diagnosis T.B. not established.	Cases in District 31-12-29.
Pulmonary,	91	26	117	9	16	7	1	2	82
Non-Pulmonary,	90	22	112	8	6	13	1	2	82

The 7 pulmonary cases taken off the list consist of cases in which the disease is apparently arrested, a period of 3 years or more having elapsed without any further breakdown in the condition of the patient.

The 13 non-pulmonary cases taken off the list consist of joints, 4; glands, 6; lupus, 1; others, 2.

The diagnosis was revised in 2 cases, both notified in 1928, (1) lipoma of knee-joint; (2) no evidence of pulmonary tuberculosis.

The diagnosis of tuberculosis was not sustained in 2 pulmonary cases and in 2 abdominal cases. (1) X-ray photograph showed presence of pulmonary fibrosis in both cases; and (2) no evidence of abdominal tuberculosis.

STATEMENT SHOWING NUMBER OF PERSONS RESIDENT IN THE AREA AT 31ST DECEMBER, 1929, WHO WERE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

		Number of Known Cases								
		Under 5	5 and under 10	10 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 65	65 and upwards	Total
PULMONARY.*										
1. Tubercle Bacilli found, ...	Males,	—	—	—	3	8	5	3	—	19
	Females,	—	1	—	3	4	4	2	—	14
2. Tubercle Bacilli not found, ..	Males,	—	3	2	4	3	8	3	—	23
	Females,	—	—	3	6	5	4	6	2	26
Pulmonary Total, - -		—	4	5	16	20	21	14	2	82
NON-PULMONARY.†										
1. Abdominal, ..	Males,	2	1	1	2	1	1	—	—	8
	Females,	2	3	1	3	—	—	—	—	9
2. Spine, ...	Males,	—	1	—	—	—	—	—	—	1
	Females,	—	—	—	1	—	1	—	—	2
3 Bones and Joints (exclusive of Spine), ...	Males,	1	2	3	2	1	2	—	—	11
	Females,	—	1	2	1	—	—	—	—	4
4. Superficial Glands,	Males,	—	3	3	5	1	2	—	—	14
	Females,	2	7	3	3	2	3	—	1	21
5. Lupus, ...	Males,	—	—	—	—	—	—	—	—	—
	Females,	—	—	—	1	—	—	—	—	1
6. Other parts or Organs,... ...	Males,	—	—	—	4	3	—	—	—	7
	Females,	—	—	—	1	1	1	—	1	4
Non-Pulmonary Total, -		7	18	13	22	9	10	—	2	82

* 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 in the return.

Domiciliary Treatment.—The number of cases receiving domiciliary treatment during the year amounted to 36.

Admissions to Sanatoria.—34 patients from the Upper Ward District were admitted to the District Sanatorium during the year. Of these, 26 were pulmonary cases and 8 non-pulmonary.

In addition, the following cases were admitted to sanatoria in the Middle Ward District as follows:—County Sanatorium, Shotts, 2 pulmonary cases; County Orthopædic Hospital, Stonehouse, 1 non-pulmonary; Hairmyres Colony, 1 pulmonary case. One case of lupus received outdoor treatment at the County Orthopædic Hospital, Stonehouse.

X-ray Examinations.—33 cases were examined at the County Hospital, Motherwell.

Burgh of Lanark.—During the year there were 6 deaths from tuberculosis—pulmonary, 3; non-pulmonary, 3.

The notifications received numbered 11. The notifications according to the forms of the disease were as follows:—Pulmonary, 4; non-pulmonary, 7.

The occupations of the cases notified were classified thus:—Factory workers, 2; engineer, 1; scholars, 2; labourer, 1; tailor, 1; housewife, 1; no occupation, 3.

The age incidence of the cases notified was as follows:—

Age,	1-5	5-15	15-25	25-45	45-65	65 and over	Total
Pulmonary, -	—	—	—	3	1	—	4
Non-pulmonary, -	2	3	1	1	—	—	7

Institutional Treatment.—8 cases—5 pulmonary and 2 non-pulmonary—received treatment in the District Sanatorium, Roadmeetings, and 1 pulmonary case in Uppertown Sanatorium.

Domiciliary Treatment.—5 cases received treatment.

Burgh of Biggar.—2 deaths were registered from tuberculosis during the year.

One notification was received—pulmonary, 1.

The occupation was that of motor-mechanic.

Institutional Treatment.—2 pulmonary cases received treatment in the District Sanatorium, Roadmeetings. One of these two cases had treatment in Hairmyres Colony.

Domiciliary Treatment.—No cases received treatment during the year.

MATERNITY AND CHILD WELFARE.

While the Burghs of Biggar and Lanark are included in the Upper Ward Scheme, the statistics relating to the three areas are given separately.

Upper Ward.—*Health Visiting Staff.*—There are three full-time Nurse Health Visitors, and, in addition, they act as Assistant Inspectors of Midwives. Part-time assistance is also received from the District Nursing Associations at Biggar, Crawford, Thankerton, Forth, and Lesmahagow.

Births.—The number of births registered in the Upper Ward, corrected for transfers, numbered 845—males, 429; females, 416—the birth-rate for the year being 17·4 per 1,000 of the population. Of the 845 births, 60 were illegitimate—males, 32; females, 28—giving an illegitimate rate of 7·1 per 100 births.

Notifications of Births.—The number of notifications received was 886, of which 854 were live-births, and the remaining 32 being still-births. The percentage of births notified to births registered was 95·4. The 32 still-births were attended as follows:—30 by medical practitioners and 2 by certified midwives, while of the 854 live-births it was found that 765, or 89·6 per cent., were attended by doctors; 88, or 10·3 per cent., by certified midwives; and 1, or ·1 per cent., by an uncertified midwife.

Still-births.—These numbered 32. From the notifications received it was found that 24, or 75 per cent., were full-time, and the remainder, 8, or 25 per cent., were premature.

Table E shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, infant deaths registered, and the infantile death-rate, the information being tabulated according to registration districts, and sub-divided into agricultural and industrial areas.

Infantile Mortality.—Infant deaths numbered 64 after correction for transfers—males, 32; females, 32—giving an infant mortality rate of 75·7 per 1,000 births. Of these deaths, 61 were of legitimate infants—males, 31; females, 30; while the illegitimate deaths numbered 3—males, 1; females, 2. The number of deaths showed an increase of 3 in comparison with the previous year's figure of 61.

TABLE E.

Registration Districts.	Births.			Number of Visits.				Attendant at Confinement.			Infant Deaths.	
	Registered (corrected for transfers).	Notified.										
		Alive.	Still-born.	First.	Subsequent.	Special.	Total.	Doctor.	Certified Midwife.	Handy Woman.	Registered (corrected for transfers).	Infant Mortality Rate.
Chiefly Industrial.												
Carluke, ...	224	223	5	203	1,062	198	1,463	224	4	...	17	...
Carmichael, ...	28	29	1	28	302	21	351	26	4	...	2	...
Carnwath, ...	30	28	3	34	249	9	317	30	1	...	2	...
Forth, ...	69	74	2	54	662	10	726	72	4	...	7	...
Tarbrax, ...	13	10	1	9	124	2	110	9	2	...	3	...
Carstairs, ...	33	36	...	25	339	23	387	32	4	...	3	...
Leadhills, ...	8	9	...	...	...	...	...	9	...	...	...	...
Douglas, ...	65	64	1	56	515	132	703	63	2	...	6	...
Lanark, ...	48	60	1	35	314	48	397	40	21	...	3	...
Lesmahagow, ...	158	159	9	150	1,192	245	1,587	130	38	...	14	...
Kirkfieldbank, ...	26	26	1	20	281	37	338	20	7	...	1	...
Coalburn, ...	47	51	4	46	378	64	488	55	...	...	1	...
Total, ...	749	769	28	660	5,418	789	6,867	710	87	...	59	78·7
Chiefly Agricultural.												
Biggar, ...	16	12	...	13	48	17	78	12	...	...	1	...
Covington, ...	7	5	2	6	115	28	149	7	...	...	1	...
Crawford, ...	10	10	1	18	89	4	111	10	1	...	1	...
Crawfordjohn, ...	9	7	1	...	...	...	...	7	1	...	...	...
Coulter, ...	5	5	...	5	31	2	38	4	1	...	...	...
Dolphinton, ...	5	3	...	...	...	...	...	3	...	...	1	...
Dunsyre, ...	4	4	...	...	...	...	...	4	...	...	...	...
Lamington, ...	6	8	...	...	...	...	...	8	...	...	...	...
Libberton, ...	11	10	...	2	37	11	50	10	...	...	...	...
Pettinain, ...	7	7	...	6	114	22	142	7	...	...	...	...
Symington, ...	6	6	...	8	58	8	74	6	...	...	1	...
Walston, ...	6	5	...	...	...	...	...	5	...	...	...	...
Wiston, ...	4	3	...	...	...	...	...	2	...	1	...	...
Total, ...	96	85	4	58	492	92	642	85	3	1	5	52·0
Combined Total,	845	854	32	718	5,910	881	7,509	795	90	1	64	75·7
Burgh of Biggar, ...	18	16	1	18	146	20	184	17	...	...	...	...
Burgh of Lanark, ...	102	101	5	73	562	137	772	75	30	1	4	39·2
Total, ...	965	971	38	809	6,618	1,038	8,465	887	120	2	68	70·4

Of the 64 deaths, 35, or 55 per cent., occurred during the first four weeks of life, while of these 35 deaths, 14 were due to premature birth and 16 fall into the classification of atrophy, debility, and marasmus.

TABLE F

	Weeks.		Months.			Total.
	-1	1-4	1-3	3-6	6-12	
Chickenpox,	—	—	—	—	—	—
Measles,	—	—	—	—	—	—
Scarlet Fever,	—	—	—	—	—	—
Whooping-Cough,	—	1	2	2	4	9
Diphtheria and Croup,	—	—	—	—	—	—
Erysipelas,	—	—	1	—	—	1
Tuberculous Disease,	—	—	—	—	—	—
Meningitis (not Tuberculous),	—	—	—	3	—	3
Hydrocephalus,	1	—	—	—	—	1
Convulsions,	—	—	—	—	—	—
Pneumonia (all forms),	—	—	—	—	—	—
Influenza,	—	—	—	2	2	4
Bronchitis,	—	—	1	—	—	1
Diarrhœa and Enteritis,	—	—	3	3	1	7
Other Digestive Diseases,	1	—	—	—	—	1
Congenital Malformation,	2	1	—	—	—	3
Congenital Heart Disease,	—	—	—	—	—	—
Premature Birth,	12	2	—	—	—	14
Atrophy, Debility, and Marasmus,	9	5	2	—	—	16
Atelectasis,	—	—	—	—	—	—
Injury at Birth,	—	—	—	—	—	—
Suffocation (overlying),	—	—	—	—	—	—
Syphilis,	—	—	—	—	—	—
All other causes,	1	—	1	2	—	4
Total,	26	9	10	12	7	64

Maternal Mortality.—Inquiry is made into all deaths occurring during confinement and within four weeks after with a view to ascertaining the cause of death. Previously, with the exception of

those cases which were removed to hospital, the first intimation of these deaths was usually obtained from the returns of the local Registrars. Following the issue of the memorandum of the Department of Health on the investigation of maternal deaths, the following letter from the Medical Officer of Health was put before the Public Health Committee :—

" 14th September, 1929.

" Dear Sir,

" Investigation of Maternal Deaths.

" You will no doubt have received from the Department of Health a circular letter of 27th August, in which the Department of Health propose that investigation be made into maternal deaths occurring in Scotland, and desire to be informed of the arrangements made by the Local Authority for this purpose.

" Such an inquiry was recommended by the Scottish Departmental Committee on Puerperal Morbidity and Mortality with the object of collecting information likely to assist in the formulation of schemes for dealing with the problems of maternal sickness and death. As the investigations are made solely for scientific and public health purposes, and all information given on the inquiry form will be treated as strictly confidential, it is recommended that the District Committee approve of the inquiry, and I would suggest that the following arrangements be made in the Upper Ward :—

" (1) Local Registrars will be requested to make a special return of deaths of married women, and for this purpose will use the form appended to the circular letter of the Department. A fee of 1s. for each death intimated in these returns will be paid by the Local Authority to the Registrar.

" (2) The Medical Officer of Health will be responsible for the inquiry and the medical data will be collected by the Senior Assistant Medical Officer. The procedure set forth in the explanatory memorandum will be followed, and the information will be recorded on the prescribed inquiry form. On receipt of a return of death the medical practitioner in attendance will be asked if he desires to submit a written report of the case or if he will arrange an interview with the Medical Investigator. If he prefers the first-named procedure he will be supplied with a copy of the inquiry form and asked to complete the sections which relate to the history of his case. Should

the information be incomplete it will then be suggested that an interview would be desirable. The Medical Investigator will thereafter collect the remainder of the information from such other sources as are available, *e.g.*, Health Visitor's reports, hospital records, midwives' reports, and so on. If the practitioner desires to give the information by interview this will be arranged at such time and place as convenient to him. Medical practitioners will be supplied with a copy of the explanatory memorandum and inquiry form, and a note of the procedure to be followed in the Upper Ward District. At the same time their co-operation will be solicited.

"I am,

"Yours faithfully,

"J. HUME PATTERSON.

"The Upper Ward District Clerk,
"District Offices,
"Lanark."

The arrangements as stated have been put into operation and the local Registrars have been supplied with the special form as recommended by the Department of Health on which the death return is to be made. These returns are to be forwarded to the Local Authority immediately on registration of the death.

The maternal deaths occurring during the year numbered 5, the certified causes of death being (1) child-birth; (2) shock following difficult labour, profound anæmia (County Maternity Hospital, Bellshill); (3) puerperal eclampsia (County Maternity Hospital, Bellshill); (4) severe anæmia following parturition (District Hospital, Roadmeetings); (5) eclampsia (Royal Infirmary, Edinburgh). This was a death occurring outwith the district but transferred in.

Year	Total Births Notified	Maternal Deaths	Maternal Mortality per 1,000 births
1921, ...	1,217	5	4·1
1922, ...	1,120	5	4·4
1923, ...	1,157	3	2·6
1924, ...	1,117	8	7·1
1925, ...	1,030	5	4·8
1926, ...	1,015	6	5 9
1927, ...	923	3	3·2
1928, ...	895	5	5·5
1929, ...	886	5	5·6

Hospital Treatment.—Four of these deaths occurred in hospital while the remaining one occurred at home.

Puerperal Fever and Puerperal Pyrexia.

The notification of Puerperal Fever and Puerperal Pyrexia (Scotland) Regulations, 1929, came into operation on 1st October, 1929. The following circular letter issued to medical practitioners shows the arrangements made for the diagnosis and treatment of such cases. This scheme has been approved by the Department of Health, subject to the condition that it will be revised on 15th May, 1930 :—

" District Offices,
" Lanark, 26th December, 1929.

" Sir,

" Notification of Puerperal Pyrexia.

" On 21st September last, I sent, for your information, a copy of the Regulations made by the Department of Health for Scotland requiring, as from 1st October, notification by a medical practitioner of all cases of puerperal pyrexia that occur in his practice (in addition to the present notification of puerperal fever).

" Puerperal pyrexia is defined in the Regulations as ' any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease (Notification) Act, 1899), occurring in a woman within twenty-one days after child-birth or miscarriage in which a temperature of 100·4°F. (38°C.) or more has been sustained during a period of twenty-four hours or has recurred during that period.' Medical practitioners are thus under obligation to notify to the Medical Officer of Health all cases of pyrexia during the puerperium, irrespective of the cause to which the fever may be attributed.

" It should be understood that the main purpose of notification is not to accumulate statistical data but to secure the co-operation of the medical attendant in the use of the treatment and preventive facilities provided by the Local Authority.

" In addition to a form for the notification of puerperal pyrexia the Regulations provide an amended form for notification of puerperal fever. The forms enable practitioners, when notifying a case of either puerperal fever or puerperal pyrexia, to indicate whether any assistance in dealing with the case is desired. To meet the convenience

of practitioners the form of notification for all infectious diseases has been modified to include the additional information, and a supply of the amended form is enclosed. The assistance that the Local Authority have provided for medical practitioners in the area is shown in the accompanying statement.

"In a case of urgency a telephone message or telegram should be sent to the Medical Officer of Health followed by the notification through the usual channels.

"I am, SIR,

"Your obedient Servant,

"J. HUME PATTERSON,

"*Medical Officer of Health.*

"MATERNITY AND CHILD WELFARE SCHEME.

ARRANGEMENTS FOR THE DIAGNOSIS AND TREATMENT OF PUERPERAL FEVER AND PUERPERAL PYREXIA.

CONSULTANT SERVICE.—Until May, 1930, the Physician-Superintendent, Roadmeetings Hospital, Carluke (Tel. No. Carluke 3), will be available to act as a consultant in all cases of doubtful illness.

BACTERIOLOGICAL EXAMINATIONS.—These will be carried out in the Public Health Laboratory, County Buildings, Hamilton (Tel. No. Hamilton 203). Arrangements have been made for specimens to be taken by the consultant, or a member of the medical staff, where this is required. As it is preferable to have specimens obtained by a uniform method, this procedure will no doubt commend itself to practitioners in most instances.

SKILLED NURSING AT HOME.—The District Nursing Associations have agreed to carry out the nursing of patients who are fit to be treated at home, and in cases of necessity the cost of these services will be borne by the Local Authority.

Hospital Treatment.—Beds have been reserved in the District Hospital, Roadmeetings (Tel. No. Carluke 3), for the treatment of all febrile conditions occurring during the puerperium. There is accommodation not only for patients who are frankly ill, but also for cases not yet diagnosed and requiring further observation.

Public Health Department,
District Offices,
Lanark."

Puerperal Fever.—5 cases were notified during the year by the medical practitioner in attendance. One of these cases was re-diagnosed in hospital as profound anæmia, giving a total of 4 cases of puerperal sepsis.

Hospital Admissions.—Of the 5 cases notified, 3 were removed to hospital, the remaining 2 being treated at home.

Deaths.—1 death occurred, this taking place in hospital, and was the case re-diagnosed on admission to hospital—the certified cause of death being severe anæmia following parturition.

Puerperal Pyrexia.—One case under this heading was notified from an institution. The elevation of temperature occurred on the tenth day and subsided in 24 hours. No real cause of the rise of temperature was discovered.

The following statement shows the total cases of puerperal sepsis along with the case-rate and death-rate for the past 9 years:—

Year	Total Births Notified	Total Cases	Rate per 1,000 Births	Deaths	Death-rate per 1,000 Births
1921,	1,217	—	—	—	—
1922,	1,120	1	0·9	—	—
1923	1,157	1	0·8	—	—
1924,	1,117	3	2·6	3	2·6
1925,	1,030	5	4·8	1	0·9
1926,	1,015	5	4·9	3	2·9
1927,	923	4	4·3	1	1·0
1928,	895	3	3·4	2	2·2
1929,	886	4	4·5	—	—

Nature of Confinement.—All these cases occurred in normal confinements, *i.e.*, no instrumental interference.

Requests for Medical Assistance.—In no instance was medical assistance requested under any of the headings of the scheme.

Maternity Homes.—Under Part 2 of the Midwives and Maternity Homes (Scotland) Act, 1927, two applications were received and granted and registered in accordance with the Act as follows:—

(1) *The house of the District Nurse in Carluke.*—This house is situated in the District Committee's Housing Scheme, and has all modern conveniences. The District Nurse in question holds the C.M.B. Certificate, and while she would be able to attend to the nursing of the patient, it is the intention that the patient's medical attendant should attend the confinement. The accommodation for cases is one bedroom (1 bed). No cases were admitted during the year.

(2) *Fairhaven Maternity Home, Lanark.*—This house stands in its own grounds, and is fitted with all modern conveniences and requirements. The Matron of this home holds both the English and Scottish C.M.B. Certificates, and has had previous experience in conducting such an institution. In the majority of cases the medical attendants of the patients conduct their own cases.

The accommodation consists of 2 small wards, containing 3 and 2 beds respectively, along with 3 private rooms, giving a total accommodation of 8 beds.

The following are the statistics for this institution:—

Twenty-five cases were admitted during the year for confinement, 13 of which were conducted by the medical attendant. There were 24 live-births and 1 still-birth which was notified by the medical attendant.

Deaths.—No deaths occurred in the institution during the year.

Ante-Natal Cases. — 3 cases of albuminuria were admitted previous to confinement for treatment. All patients were discharged well after confinement.

Abortions.—No cases were admitted during the year.

Normal Confinements.—17 cases were normal confinements, *i.e.*, no interference with the mechanism of labour during the second or third stages. Five of these were conducted by the medical attendant.

Abnormal or Complicated Confinements. — There were 7 cases of instrumental deliveries, and in 1 case labour was induced (bougies) and terminated naturally. The conditions found in connection with the instrumental deliveries were—albuminuria, 2; contracted pelvis, 3; flat pelvis, 1; delayed labour, 1.

Ophthalmia Neonatorum.—During the year 1 case was notified by the medical practitioner in attendance. The case made a complete recovery with no impairment to vision. Treatment was carried out at home.

Measles and Whooping-cough.—Under this scheme partial notification of these diseases is in force in the district.

Measles.—In all 55 cases came to the knowledge of the department during the year. Of these, 10 were notified by the doctor in attendance, while the remainder were reported by the Health Visitors and from schools. Nineteen of the total number were under 5 years of age, the age incidence of the cases being as follows:—

Age,	-1	1-3	3-5	5-10	10 and over
Cases, ...	3	7	9	27	9

Deaths.—No deaths occurred during the year.

Hospital Admissions.—No cases of measles were admitted during the year.

Whooping-cough.—403 cases came to the knowledge of the department during the year, and of these 144 were notified by the medical attendant, the remainder by the nursing staff and from schools. Of the total 403 cases, 312, or 77 per cent., were under 5 years of age.

Deaths.—10 deaths from this disease occurred during the year, 9, or 90 per cent., occurring during the first 12 months of life. The ultimate causes of death were as follows:—Pneumonia, 2; bronchopneumonia, 4; convulsions, 2; septicæmia, 1; heart failure, 1.

The age incidence of cases and deaths are as follows:—

Age,	-1	1-3	3-5	5-10	10 and over
Cases, ...	60	126	126	84	7
Deaths, ...	9	1	—	—	—

Hospital Admissions.—4 cases of whooping-cough were admitted to the District Hospital, Roadmeetings, on account of the severity of the disease. All made a satisfactory recovery.

Hospital Accommodation for Measles and Whooping-cough.—Arrangements are in force whereby severe cases or cases where home conditions are not satisfactory can be admitted to the District Hospital, Roadmeetings.

The following tabular statement shows the death-rate per 10,000 of the population and the actual number of deaths during the past nine years :—

Year	Measles		Whooping-Cough	
	Deaths	Death-rate	Deaths	Death-rate
1921, ...	—	—	17	3·6
1922, ...	8	1·7	10	2·1
1923, ...	4	·8	12	2·5
1924, ...	13	2·6	10	2·0
1925, ...	1	·2	11	2·2
1926, ...	6	1·2	—	—
1927, ...	3	·6	3	·6
1928, ...	5	1·0	6	1·2
1929, ...	—	—	10	2·0

Home Visitation.—The visits made under this scheme, excluding the two burghs which are given later, numbered 7,509, of which 718 were first visits, 5,910 subsequent visits, and 881 special visits. Of these visits, 547 first visits, 4,221 subsequent visits, and 781 special visits were made by the Nurse Health Visitors. The visits made by the District Nurses numbered 171 first visits, 1,689 subsequent visits, and 100 special visits, giving a total of 718 first visits, 5,910 subsequent visits, and 881 special visits. Special visits included—expectant mothers, 326; whooping-cough, 373; measles, 53; chickenpox, 103; other visits, 26.

The total visits including the two burghs were as follows :— 809 first visits, 6,619 subsequent visits, and 1,038 special visits, giving a total of 8,465 visits paid under this scheme.

Child Welfare Centres.—The attendances and consultations at the four Child Welfare Centres were as follows :—

	Mothers	Babies and Children	Consultations
Lanark, - -	895	1,093	113
Carluke, . -	1,005	1,185	119
Coalburn, - -	214	250	37
Douglas Water, -	273	403	24

Feeding of Infants.—Of the 809 first visits made, it was found that the feeding of these infants at the time of first visit was as follows :—

Breast					
Only	With Cow's Milk	With Patent Food	Cow's Milk Only	Patent Food Only	Cow's Milk and Patent Food
612	54	10	111	18	4

After deduction of removals and deaths it was found from the records that the feeding at six months could be obtained of 354 infants. The feeding of these infants is given at time of first visit for comparison with the feeding at six months in the following statement :—

	Breast					
	Only	With Cow's Milk	With Patent Food	Cow's Milk Only	Patent Food Only	Cow's Milk and Patent Food
At first visit,	271	18	6	53	5	1
At 6 months,	196	31	8	93	17	9

Necessitous Cases.—Following the practice of previous years, those receiving assistance have been classified according to their medical condition. The number shows a definite increase from last year and is made up as follows :—Expectant mothers, 84 ; nursing mothers, 90 ; children under 1 year, 90 ; children under 5 years, 101 :—

	Mothers.		Children.		
	Expectant.	*Nursing.*	-1	-5	Total.
Debility,	47	32	33	33	145
Inability to Nurse,	—	27	—	—	27
Loss of Weight,	—	—	15	10	25
Malnutrition,	14	8	18	14	54
Infectious Diseases (debility following)—					
Measles,	—	—	1	5	6
Whooping-Cough,	—	—	10	15	25
Influenza,	—	—	—	2	2
Respiratory Diseases—					
Pneumonia,	—	—	3	7	10
Bronchitis,	1	1	7	5	14
Digestive Diseases—					
Gastritis,	—	1	—	—	1
Gastro-Enteritis,	—	—	2	3	5
Diseases connected with Pregnancy—					
Phlebitis,	—	2	—	—	2
Puerperal Fever,	—	3	—	—	3
Hyperemesis Gravidarum,	1	—	—	—	1
Albuminuria,	6	—	—	—	6
Hydramnios,	—	1	—	—	1
Mastitis,	—	2	—	—	2
General Diseases—					
Anæmia,	14	12	—	—	26
Rickets,	—	—	1	2	3
Impetigo,	—	—	—	4	4
Cardiac Disease,	1	1	—	1	3
Total,	84	90	90	101	365

Hospital Admissions.—During the year there were 53 admissions to the County Maternity Hospital, Bellshill, which were classified as follows:—Normal confinements, 34; abnormal confinements, 3; illness connected with pregnancy, 16. While most of the normal confinements were admitted on account of housing and domestic conditions, others were sent in by practitioners as emergency cases, the birth taking place naturally in hospital.

During the year there were 7 admissions to the County Convalescent Home, Calderbank House, Baillieston. These were classified as follows:—Illness connected with pregnancy, 4. Children under 5 years, 3—debility, 2; and 1 infant admitted along with the mother.

To the District Hospital, Roadmeetings, there were 7 admissions. Illness connected with pregnancy, 3. Children under 5 years, 4—whooping-cough, 4.

Ear, Throat, and Nose Ailments.—4 cases of children under 5 years were admitted to the County Convalescent Home, Calderbank House, for the removal of tonsils and adenoids. Two cases were admitted to the County Hospital, Motherwell, 1 sub-mucous resection and 1 otitis media.

Ultra-Violet Ray Therapy.—In the debilitated conditions of infants good results continue to be obtained from the use of this form of treatment. Cod liver oil emulsion is given as a routine along with the lamp treatment. Treatment is usually commenced with short exposures—back and front—at a distance of three feet for 1½ minutes. The lamp was used on 82 days during the year, and a total of 805 exposures were given. Mothers attended with their infants with great regularity.

Burgh of Lanark.—The number of births in the burgh after correction for transfers amounted to 102, of which 8 were illegitimate, giving a birth-rate of 16·2 per 1,000 of the population.

The attendant at birth will be found in Table E, which also gives the number of births notified and the visits made by the Nurse Health Visitor.

Infant Mortality.—The deaths of infants under 1 year numbered 4, giving an infant mortality rate of 39·2 per 1,000 births. The certified causes of death were:—Premature birth, 2; whooping-cough, convulsions, cardiac failure, 1; premature birth, malnutrition, 1.

Ophthalmia Neonatorum.—1 case was notified by the medical practitioner in attendance. This case was classified as fairly severe. Bacteriological examination proved negative for gonococci. The case

was removed to and treated in hospital. Complete recovery took place with no impairment to vision.

Hospital Admissions.—During the year 17 cases were admitted to the County Maternity Hospital, Bellshill—normal cases of confinement, 9; abnormal cases of confinement, 3; illness connected with pregnancy, 5.

During the year 5 cases were admitted to the District Hospital, Roadmeetings—illness connected with pregnancy, 1. Children under 5 years, 4 (ophthalmia neonatorium, 1; whooping-cough, 2; infantile diarrhœa, 1).

To the County Convalescent Home, Calderbank House, 4 cases were admitted—illness connected with pregnancy, 1. Children under 5 years, 3 (debility).

Ear, Throat, and Nose Ailments.—No cases were admitted to hospital.

Necessitous Cases.—The cases receiving assistance during the year numbered 33. These were as follows:—Expectant mothers, 3; nursing mothers, 11; children under 1 year, 8; children under 5 years, 11. The following statement shows the physical condition of the cases granted assistance:—

	Mothers.		Children.		
	Expectant.	*Nursing.*	-1	-5	Total.
Debility, ...	2	—	1	—	3
Inability to Nurse, ...	—	10	—	—	10
Loss of Weight, ...	—	—	3	1	4
Malnutrition, ...	—	—	2	—	2
Infectious Diseases (debility following)—					
Measles, ...	—	—	—	2	2
Whooping-Cough, ...	—	—	—	3	3
Influenza, ...	—	—	1	1	2
Respiratory Diseases—					
Pneumonia, ...	—	—	—	1	1
Bronchitis, ...	—	—	1	—	1
Digestive Diseases—					
Gastritis, ...	—	—	—	1	1
Diseases connected with Pregnancy—					
Phlebitis, ...	—	1	—	—	1
General Diseases—					
Anæmia, ...	1	—	—	1	2
Rickets, ...	—	—	—	1	1
Total, ...	3	11	8	11	33

Burgh of Biggar.—The number of births after correction for transfers amounted to 18—males, 10; females, 8, giving a birth-rate of 11·6 per 1,000 of the population.

The notifications of birth and the attendants at birth as well as the visits made by the Nurse Health Visitor will be found in Table E.

Infantile Mortality.—There was 1 death under 1 year, giving an infant mortality rate of 55·5 per 1,000 births. The certified cause of death was convulsions.

Hospital Admissions.—There were no admissions to hospital.

Ophthalmia Neonatorum.—There were no cases during the year.

Necessitous Cases.—Nil.

General Sanitation.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings, "Housing," "Water Supply," "Drainage and Sewage Disposal," "Scavenging," "Nuisances," "Tents, Vans, and Sheds," "Workshops," "Sanitary Conditions of Dairies, Cowsheds, and Milkshops, &c."

Milk (Special Designations) Order (Scotland), 1923.

During the year there were 26 producers in possession of a licence from the Local Authority to sell the various grades of milk under the above Order. These are as follows:—Certified milk, 6; Grade A (T.T.), 18; Grade A, 2. There is little difficulty of disposing of the supply, but most of it is sent out of the district, with the exception of a certain amount retailed in the Biggar, Lanark, and Carluke areas.

The following were the licences held during the year:—

Grade of Licence.	Name and Address of Licensee.
Certified	Andrew Murdoch, Teaths, Lesmahagow.
Do.	John Russell, Walston Mansions, Dunsyre.
Do.	James G. Gilchrist, Auchtygemmel, Lesmahagow.
Do.	Harry Roscoe, Boghead, Crawford.
Do.	J. & T. Blackwood, Hill of Kilncadzow, Carluke.
Do.	James Hodge, Brownhill, Carnwath.
Grade A (T.T.) and Bottler's Licence	T. B. M'Gregor, Lesserlinn, Lanark.

Grade of Licence.	Name and Address of Licensee.
Grade A (T.T.)	Gavin Hamilton, Auldtoun, Lesmahagow.
Do.	John Kirkwood, Scorrieholm, Lesmahagow.
Do.	Right Hon. Earl of Home, Newmains, Douglas.
Do.	T. & W. Ballantyne, Woods, Auchenheath.
Do.	Thomas C. Stewart, Southfield, Kirkmuirhill.
Do.	James Barr, Whiteshaw, Carluke.
Do.	Hugh C. Brown, Birkwood Mains, Lesmahagow.
Do.	John Struthers, Anston, Dunsyre.
Do.	R. & W. Wallace, Linnhead, Lesmahagow.
Do.	Walter Adamson, Harleyholm, Carmichael.
Do.	John Cadzow, Craighead, Carluke.
Do.	John Fairie, Blackwoodyards, Kirkmuirmill.
Do.	Lindsay Steele, Blackhill, Lesmahagow.
Do.	James A. Brown, Cormiston Towers, Biggar.
Do.	Thomas Pate, South Draffan, Kirkmuirhill.
Do.	Thomas Scott, Netherhall, Lesmahagow.
Do.	Samuel A. Ballantyne, Eastwood, Lesmahagow.
Grade A and Bottler's Licence	James Barrie, Mossplatt, Carstairs.
Grade A	Archibald Affleck, Barnhills, Douglas Water.

The following table shows the *bacterial content* of the samples taken during the year :—

Blood Heat Organisms per c.c.	Certified.	Grade A (T.T.)	Grade A.
Under 1,000 - -	8	5	—
,, 2,500 - -	6	12	—
,, 5,000 - -	—	14	1
,, 10,000 - -	2	32	2
,, 20,000 - -	—	28	1
,, 30,000 - -	—	7	—
,, 50,000 - -	—	2	—
,, 100,000 - -	1	4	—
,, 200,000 - -	1	—	—
Over 200,000 - -	—	2	—
	18	106	4
Coliform Bacilli present in			
One-tenth of a c.c.	3	—	—
One-hundredth of a c.c.	—	15	—

Certified Milk.—On only two occasions was the bacterial content found to be above the standard, both samples being from the same producer.

Three samples were found to contain coliform bacilli in one-tenth of a c.c. These samples were taken from two different vendors, and on instructions being given that more care should be taken with the milking methods, subsequent sampling carried out gave satisfactory results.

Grade A (Tuberculin Tested).—Two samples were found to contain coliform bacilli in one-hundredth of a c.c., and the bacterial content was also above the standard. On thirteen occasions coliform bacilli were found present in one-hundredth of a c.c. These samples were taken from eight different producers. Subsequent sampling carried out gave satisfactory results.

Chemical Analysis.—The following table shows the milk fat per cent. and the milk solids other than milk fat per cent. in the samples of graded milk taken throughout the year :—

Milk Fat per cent.	Certified	Grade A (T.T.)	Grade A	Non-fatty solids per cent.	Certified	Grade A (T.T.)	Grade A
3·0	—	1	—	8·5	1	—	—
3·1	—	2	—	8·6	—	1	—
3·2	—	2	1	8·7	1	9	—
3·3	—	4	—	8·8	3	13	2
3·4	1	1	—	8·9	3	13	1
3·5	—	1	—	9·0	1	15	1
3·6	—	9	—	9·1	2	15	—
3·7	4	10	2	9·2	2	18	—
3·8	2	11	—	9·3	—	12	—
3·9	—	12	—	9·4	3	2	—
4·0	2	11	—	9·5			
4·1	1	10	—	& Over	—	2	—
4·2	—	4	1				
4·3	2	10	—				
4·4	1	5	—				
4·5							
& Over	3	7	—				
—	16	100	4	—	16	100	4

Milk Fat.—One sample of certified milk, ten samples of Grade A (T.T.) milk, and one sample of Grade A milk were found not to comply with the standard of 3·5 per cent. of milk fat. These samples were taken from six different producers.

These producers were communicated with, pointing out the necessity for the standard of milk fat being complied with. Subsequent sampling was satisfactory.

Veterinary Inspection of Dairy Herds.

The prevalence of tuberculosis of the udder among dairy stock is detailed in the following table, which shows the work done in the Upper Ward during the year. Samples of milk were drawn from all udders which, upon examination, showed a suspicious condition. 250 samples of milk were taken in this way and sent to the County Laboratory for examination, when 30 samples were found to contain tubercle bacilli. In these cases, certificates were granted by the County Veterinary Surgeon, stating that the animal suffered from tuberculosis of the udder, the animal being thereafter slaughtered under the Tuberculosis Order.

Under the Milk and Dairies (Scotland) Act, 1914, which came into force on 1st September, 1925, it is an offence to sell milk from a cow suffering from any disease liable to infect or contaminate the milk. Samples of milk are therefore taken in any case where a suspicious condition of the udder is noted. If, on examination in the laboratory, any samples are found to contain the streptococcus of mammitis or other infective organisms, a letter is sent to the owner of the animal pointing out that it is an offence to sell the milk from such a cow for human consumption, and asking him what he is doing to comply with the statute. During the year 57 such letters were sent.

Upper Ward District.

Veterinary Inspection of Dairy Herds.—Year 1929.

Parish	Herds Registered	Herds Inspected	Cows Inspected	Cows with Abnormal Condition of Udder						Samples of Milk			
				Tubercle	Atrophy	Mammitis	Induration N.T.	Eruption on Teats	Totals	Number taken	Number found to contain Tubercle	Number found to contain Infectious Organisms	Number Negative
Biggar,	22	25	458	1	17	1	2	—	21	3	1	—	2
Carluke,	72	79	1,410	3	36	1	16	—	56	17	3	5	9
Carmichael,	22	33	624	—	19	1	9	2	31	12	—	5	7
Carnwath,	87	104	2,036	5	45	—	34	1	85	43	5	12	26
Carstairs,	23	30	870	3	26	2	16	4	51	20	3	2	15
Covington	11	14	246	—	9	—	4	—	13	3	—	3	—
Crawford,	11	30	192	1	—	—	1	—	2	2	1	—	1
Crawfordjohn,	19	24	360	—	9	—	2	—	11	3	—	—	3
Coulter,	7	17	112	—	1	—	3	—	4	1	—	1	—
Dolphinton,	16	17	212	1	5	—	4	—	10	5	1	1	3
Douglas,	19	28	378	1	12	—	7	—	20	6	1	2	3
Dunsyre,	7	12	229	1	7	—	2	1	11	1	1	—	—
Lamington,	8	13	109	—	2	—	2	—	4	2	—	—	2
Lanark,	24	35	636	3	25	—	7	3	38	14	3	4	7
Lesmahagow,	161	202	4,223	3	133	7	53	5	201	90	3	16	71
Libberton,	23	33	784	2	21	3	5	3	33	12	4	6	2
Pettinain,	13	17	310	4	4	—	5	—	13	7	4	—	3
Symington,	14	19	145	—	3	—	2	—	5	4	—	2	2
Walston,	21	28	359	—	9	—	6	1	16	4	—	2	2
Wiston, &c.,	17	26	416	—	7	—	1	—	8	1	—	—	1
Total for Upper Ward,	597	786	14,109	28	390	15	181	20	634	250	30*	61†	159

* These samples were taken from 28 cows.
† Do. do. 57 do.

Public and Private Slaughter-houses.

There are in the Upper Ward District 4 public and 7 private slaughter-houses, the latter including a large sheepery.

The public abattoirs are situated in Carluke, Douglas, Forth, and Lesmahagow, and the private slaughter-houses in the following areas:—Abington, Carnwath, Carstairs Junction, Crawford, Douglas-water, Leadhills, and Symington.

All the slaughter-houses within the district were regularly visited and, with few exceptions, were conducted in accordance with the by-laws.

The following tables give a record of (*a*) the animals killed and dues, &c., collected; and (*b*) the carcases totally destroyed or partially condemned during the year in the various public abattoirs:—

1929.

Record of Animals Killed.

Abattoir	Bulls	Bullocks	Cows	Heifers	Calves	Sheep	Swine	Totals	Offals, Fees, Dues, &c. Collected. £	s.	d.
Carluke, - -	23	489	107	167	4,484	826	2,805	8,901	750	2	5
Douglas, - -	...	68	...	16	...	124	38	246	20	4	8
Forth, - - -	...	203	...	67	...	195	67	532	54	14	8
Lesmahagow.	48	274	256	88	4	353	69	1,092	229	1	3
Total, -	71	1,034	363	338	4,488	1,498	2,979	10,771	£1,054	3	0

1929.

Record of Carcases Totally or Partially Condemned.

Abattoir	Cattle.				Calves.				Sheep.				Swine.			
	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Part Carcases	Heads	Internal Organs
Carluke, -	68	15	41	139	7	1	1	22	...	1	2	6	3	2	81	110
Douglas, -	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Forth, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lesmahagow.	8	53	9	83	1	...	...	...	...	...	...	5	...	...	1	1
Total. -	76	69	51	223	8	1	1	22	...	1	2	11	3	2	82	111

The following table gives a record of the animals slaughtered at the undermentioned slaughter-houses :—

1929.

RECORD OF ANIMALS KILLED.

Slaughter-house	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Swine	Totals
Abington, - - - -	...	72	11	...	...	207	17	307
Carnwath, - - - -	...	92	...	1	...	175	...	268
Carstairs Junction,	...	152	6	14	...	172	58	402
Crawford, - - - -	...	62	...	...	...	218	35	315
Douglas Water, -	...	86	17	...	...	140	4	247
Leadhills, - - -	...	6	12	23	...	106	...	147
Total, - - - -	...	470	46	38	...	1,018	114	1,686

CONDEMNATIONS.

Abington, . - -	1 Pig, totally condemned.
Crawford, - - -	Ox, tongue.
Emergency Slaughter,	Cows passed, 5.
	Cows condemned, 2.

Offensive Trades.

Two businesses are conducted under this category in the Upper Ward District. These are (1) knacker's yard at Whitelees, Lanark; and (2) bone-degreasing plant at Braidwood.

No complaints were received during the year in respect of either business.

COUNTY OF LANARK

DISTRICT OF THE UPPER WARD

Midwives (Scotland) Act, 1915

THIRTEENTH ANNUAL REPORT

BY THE

MEDICAL OFFICER OF HEALTH

1929

The Medical Officer of every Local Authority shall report annually to that Authority of the administration of the Act within the District of that Local Authority, and he shall transmit a copy of such report to the Central Midwives Board and to the Local Government Board for Scotland.—Section 23.

STAFF.

Administrative Officer.

J. Hume Patterson, F.R.F.P.S.(G.), D.P.H.

Executive Officer and Inspector of Midwives.

Alexander Fraser, M.D., D.P.H.

Nurse Health Visitors and Assistant Inspectors of Midwives.

(*All hold C.M.B. Certificate.*)

Annie S. Aitken.
Janet Lindsay.
Helen M'Gregor.

Practising Midwives.—10 midwives notified their intention to practise in the Upper Ward District.

These midwives are in *bona-fide* practice, and certified, under the Act, though, however, many of them seldom practise by themselves, preferring to attend chiefly on doctors' cases.

Attendances at Confinement.—The total number of births allocated to the District amounted to 845.

886 births were notified, of which 854 were live births, and 32 still-births. From these notifications it was found that in 795 cases a medical practitioner was in attendance, in 90 a certified midwife, and in 1 an uncertified midwife. The percentage of births registered in the District which were attended by certified midwives was 10·1.

Still-births.—In the Upper Ward District 32 still-births were notified. In 30 cases a medical practitioner was in attendance, and in 2 cases a certified midwife.

Inspection of Midwives.—The routine inspections made during the year showed that the personal conditions were satisfactory in 6 cases and fair in the remainder.

Puerperal Septicæmia.—During the year 5 cases of this disease were notified by the medical practitioners in attendance. Three of these cases were removed to the District Hospital, Roadmeetings, while 2 were treated at home. One case was re-diagnosed in hospital, leaving a total of 4 cases.

Ophthalmia Neonatorum.—During the year 1 case was notified by the medical practitioner in attendance. Visits were made by the Nurse Health Visitor, and the case classified as mild. Recovery was complete, with no impairment to vision.

Medical Assistance.—2 notifications of the calling in of medical assistance were received during the year. (1) Delayed labour; (2) varicose veins.

Liability to be a Source of Infection.—No notifications were received.

Form of having laid out a Dead Body.—No notifications were received.

Notification of Death.—No notifications were received.

Offences.—Nil.

Infectious Diseases Hospital and Sanatorium, Roadmeetings.

Annual Report, 1929.

Resident Physician—Effie S. Stephen, M.B., Ch.B., D.P.H.

Matron—Miss Ramsay.

INFECTIOUS DISEASES HOSPITAL.

Admissions (as notified) and discharges during 1929, with the number in hospital at the beginning and end of the year.

Disease.	In Hospital 1st Jan 1929.		Admitted.		Discharged.				Remaining in Hospital 31/12/29.	
					Recovered.		Died.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Scarlet Fever,	8	19	65	78	70	94	2	1	1	2
Diphtheria,	3	6	64	73	56	66	4	3	7	10
Enteric and Paratyphoid Fever,	—	—	5	*4	5	*4	—	—	—	—
Erysipelas,	—	—	1	—	1	—	—	—	—	—
Puerperal Sepsis,	—	—	—	4	—	2	—	1	—	1
Pneumonia,	—	1	16	13	14	10	2	4	—	—
Whooping Cough,	—	—	2	1	2	1	—	—	—	—
Cerebro-Spinal Meningitis.	—	—	2	1	1	—	1	1	—	—
Ophthalmia Neonatorum,	—	—	1	—	1	—	—	—	—	—
Others,	—	1	8	27	7	28	1	—	—	—
	11	27	164	201	157	205	10	10	8	13
	38		365		362		20		21	
	403				403					

*1 Re-admission.

The admission figures in the above table include 2 cases of scarlet fever and 2 cases of diphtheria admitted from the Burgh of Biggar; 4 cases of scarlet fever, 13 cases of diphtheria, and 1 case of cerebro-spinal meningitis admitted from the Burgh of Lanark; 1 case of scarlet fever, 4 cases of dihptheria, and 2 cases of paratyphoid fever which occurred amongst the members of the staff; and 2 cases of diphtheria which occurred in the Sanatorium.

Roadmeetings Hospital was formally opened on November 15th, 1928. Infectious cases were admitted on November 19th, 1928. At the beginning of 1929 there were 38 cases in residence. During the year 365 were admitted, making a total of 403. Of these, 362 were discharged recovered or improved, 20 died, and 21 were in hospital at the end of the year. The hospital was at no time overcrowded, as there were no marked epidemics in the Upper Ward. The majority of admissions were cases of diphtheria and scarlet fever.

The number of admissions from all diseases was greatest in the month of May. The total for the month was 50. The lowest number of admissions occurred in December, the figure being 18. The greatest number of patients admitted on one day was 7, and the average monthly rate of admission was 30·3. The average daily number of patients resident was 36·7.

The average duration of residence of all cases discharged was 38·41 days: of all recovered cases 40 days, and of all fatal cases 11·25 days.

The Fatality Rate, calculated on all cases discharged was 5·7 per cent.

Scarlet Fever.

27 cases of scarlet fever were in hospital on 1st January, 1929. These included 3 cases transferred from Motherwell County Hospital after Roadmeetings Hospital was opened. During 1929, 143 cases were admitted, 13 were wrongly diagnosed, and 1 case, admitted as suffering from diphtheria, proved to be suffering from scarlet fever, leaving 158 cases. Of these 158 cases, 153 were discharged well, 2 died, and 3 were in hospital on 31st December, 1929.

Removal to Hospital was carried out in 92·61 per cent. of cases in the 1st week of illness, 5·37 per cent. in 2nd week, and 2·02 per cent. in 3rd week or later.

The Average Day of Disease on admission of all cases was 3·5 days.

The Average Duration of Residence of all cases was 44·2 days, of recovered cases 44·6 days, and of fatal cases 10·5 days.

Type of Disease.—130, or 83·8 per cent., of total cases were classified as mild, 18, or 11.7 per cent., as moderately severe; and 7, or 4·5 per cent., as very severe.

The Fatality Rate, as calculated on the discharges, was 1·3 per cent. Of the 2 fatal cases 1 was male, the other female. The average age was 2·5 years; the average day of illness 4·5 days; and the average residence 10·5 days.

Corrected Diagnosis.—Of the cases notified as scarlet fever 13 were wrongly diagnosed.

These were :—German Measles,	... ...	9
Erysipelas,	... ...	1
Chickenpox and Whooping-cough,	...	1
Diphtheria,	... ...	1
Scarlatiniform Eruption,	... ...	1

Complications.—38·7 per cent. of all cases discharged showed one or more complications.

Glands.—25, or 16·1 per cent., of the cases discharged showed glandular enlargement. Non-suppurative adenitis, 22; suppurative adenitis, 3.

Ear.—10, or 6·5 per cent., developed otitis media. 1 was moist on discharge, and 3 went on to mastoiditis and mastoidectomy was performed.

Nose.—10, or 6·5 per cent., developed rhinitis.

Joints.—9, or 5·8 per cent., developed varying degrees of arthritis.

Kidney.—6 developed true nephritis, 3 had mild albuminuria.

Heart.—3 cases showed arrhythmia, 1 case developed organic disease.

Lungs.—Broncho-pneumonia, 1.

Skin.—Dermatitis, 2.

Sepsis.—Abscess, 1; sores, 2.

Other Complications.—Enteritis, 1; epistaxis, 1; herpes, 1; tonsillitis, 3; vaginitis, 2; serum urticaria, 2; swabs positive, 14 (of these 2 proved avirulent to the guinea-pig).

Other conditions present on admission and not related to the attack of Scarlet Fever.—Blepharitis, 1; goitre, 1; hæmorrhoids, 1; impetigo, 2; rickets, 1; ringworm, 2.

Scarlet fever antitoxin was given to 15 cases. Of these, 4 were severe (including 2 fatal cases), and 11 were moderately ill.

The average dose was 13·5 c.c. 3 developed urticarial rashes. 8, or 53·5 per cent., developed one or more complications.

Diphtheria Antitoxin.—Serum was given to 20 cases. The average dose was 10,000 units.

Mixed Infections.—Diphtheria, 4; measles, 1.

Return Cases.—28 days being taken as the period within which a case is regarded as "return"; one case infected one other, the latter being admitted 21 days after the former's discharge. The first case was clean on discharge.

Mastoid Operation.—3 cases had mastoidectomy performed, 2 recovered and were apparently cured; 1, a septic scarlet fever case, who developed acute mastoiditis on 8th day of illness, died of general septicæmia 6 days after operation.

Diphtheria.

9 cases were in hospital on 1st January, 1929. During the year 137 were admitted as diphtheria. 39 were wrongly diagnosed, including 34 with positive swabs with no exudate present and no constitutional disturbance, and 1 case admitted as suffering from scarlet fever proved to be suffering from diphtheria, leaving 108 patients suffering from diphtheria. Of these 108 patients, 84 were discharged well, 7 died, and 17 were in hospital on 31st December, 1929.

Removal to Hospital was carried out within the first three days in 54·9 per cent. of all cases. In the fatal cases the average duration of illness prior to admission was 5·71 days.

The Average Day of Disease on admission of all cases was 3·5 days.

Duration of Residence.—The average duration of residence of all cases was 45·2 days, of recovered cases 47·9 days, and of fatal cases 9·1 days.

Type of Disease—

Faucial Diphtheria.—In 69 cases the faucial region of the throat was affected.

Mild.—33 cases were of a mild type. The average amount of serum given was 12,400 units.

Complications.—Adenitis, 1; albuminuria, 2; arrhythmia, 2; herpes, 1; rheumatism, 1; septic finger, 2; tonsillitis, 1; ulcerative stomatitis, 1; urticarial rash, 6; 1 patient had in addition scarlet fever.

Moderate.—In 25 cases the membrane was fairly extensive and marked toxæmia was present. The average amount of serum given was 24,200 units.

Complications.—Adenitis, 1; albuminuria, 1; arrhythmia, 2; v.s. murmur, 1; otitis media, 1; scarlatiniform rash, 1; tonsillitis, 1; urticarial rash, 6.

Severe.—11 cases, including 2 fatal ones, were of the severe type. Membrane was widespread and toxæmia profound. The average amount of serum given was 51,200 units. 3 cases received scarlet-fever antitoxin also.

Complications. — Adenitis, 3; albuminuria, 4; arrhythmia, 1; v.s. murmur, 1; palatal paralysis, 2; hæmorrhage, 1; quinsy, 1; rhinitis, 1. 1 patient had also scarlet fever.

Laryngeal Diphtheria.—The larynx was involved in 4 cases, 1 moderately severe and 3 severe, all recovered, 2 required tracheotomy.

The average amount of serum given was 44,000 units.

Complications.—Albuminuria, 2.

Faucial and Laryngeal Diphtheria.—Fauces and larynx were involved in 6 cases, 1 mild, 3 moderately ill, and 2 severe.

The mild case received 20,000 units, average dose for moderate cases was 29,000 units, average dose for severe cases was 40,000.

Complications.—Arrhythmia, 1; palatal paralysis, 1.

Faucial and Nasal Diphtheria.—Of the 9 cases, 4 were fatal, 2 moderate cases had an average dose of 20,000 units of serum, and 1 also received scarlet-fever antitoxin.

Complications.—Arrhythmia, 1; urticarial rash, 1.

7 cases were severe; average dose of serum was 65,000 units; scarlet-fever antitoxin was given in 2 cases.

Complications.—Adenitis, 1; albuminuria, 3; arrhythmia, 1; cardiac paralysis, 2; enteritis, 1; epistaxis, 1; palatal paralysis, 2; hæmorrhage, 1.

Faucial Nasal and Laryngeal.—1 hæmorrhagic case died.

Site of Membrane.	Mild.		Moderate.		Severe.		Total.	
	Rec.	Died.	Rec.	Died.	Rec.	Died.	Rec.	Died.
Faucial, - - - -	33	—	25	—	9	2	67	2
Laryngeal, - - -	—	—	1	—	3	—	4	—
Faucial and Laryngeal, -	1	—	3	—	2	—	6	—
Faucial and Nasal, -	1	—	2	—	2	4	5	4
Faucial and Laryngeal and Nasal, - -	—	—	—	—	—	1	—	1
	35	—	31	—	16	7	82	7

Diphtheritic Paralysis.—Paralysis was noted in 15 cases. Arrhythmia, 8; heart, 2; palate, 5.

Mixed Infection.—Diphtheria and chickenpox, 1; diphtheria and scarlet fever, 4.

Other Conditions Present on Admission.—Eczema (chronic), 1; epilepsy, 1; impetigo, 2; inguinal hernia, 1; neurasthenia, 1; otitis media (chronic), 1; T.B. abdomen, 1; T.B. glands, 1; V.D.H., 2.

Corrected Diagnosis.—Tonsillar abscess, 1; tonsillitis, 3; scarlet fever, 1; swab positive, 34.

Fatality Rate.—7 cases, or 7·8 per cent., of the clinical discharges.

Fatal Cases.—Of the 7 fatal cases, 4 were male and 3 female. The average age was 9·5 years. The average duration of illness prior to admission was 5·71 days. The average duration of residence in hospital was 9·1 days. The average amount of serum given was 65,500 units. 6 of the 7 had been ill for over 3 days before being given serum or being sent to hospital.

Operative Treatment.—Abscesses incised, 3; tracheotomy, 2. 10 cases, or 11·2 per cent., of all clinical discharges received serum prior to admission to hospital.

Paratyphoid Fever.

No cases were in residence on 1st January, 1929. During the year 8 cases were admitted, one of which was subsequently re-admitted for minor operation. Diagnosis was confirmed in all cases. All recovered—all were proved to be paratyphoid B infection, 3 were mild, 3 moderately ill, and 2 severe.

Removal to Hospital was carried out during the 1st week in 2 cases, during the 2nd week in 4, and during the 3rd week in 2.

The Average Day of Illness on admission was 11·6 days.

The Average Duration of Residence was 36·5 days.

The Average Age was 25·6 years.

Sex.—Male, 5; female, 3.

Complications.—Intestinal hæmorrhage, 2; albuminuria, 1; periostitis of rib, 1. The latter case was readmitted with discharging sinus on chest wall.

Puerperal Fever.

No cases were in hospital on 1st January, 1929, 4 were admitted as such; 1 died, 2 were discharged well, and 1 was in residence on 31st December, 1929.

The cause of death in the fatal case was profound anæmia, following child-birth. She died after being in hospital 7 days.

1 case was mild—being registered puerperal pyrexia due to constipation. 1 case was moderately ill and recovered.

The average age of patients was 30·5 years. The average duration of illness prior to admission was 10·2 days.

Erysipelas.

Only 1 case was admitted as such. The patient was a child of 2 and recovered. An infant of 14 days old was admitted as scarlet fever, but proved to be suffering from erysipelas and died.

Pneumonia.

1 case was in hospital on 1st January, 1929, 29 were admitted as such. Of these 4 had diagnosis corrected. 21 of the 26 cases recovered; 5 died. There were no cases in hospital on 31st December, 1929.

Classification.—Acute lobar pneumonia, 12; broncho-pneumonia, 6; influenzal pneumonia, 6; hypostatic pneumonia, 1; septic pneumonia, 1.

Type of Disease.—Mild, 3; moderate, 11; severe, 12.

The Average Day of Disease of all cases on admission was 5·5 days; of recovered cases, 5·2; and of fatal cases, 6·2.

The Average Duration of Residence of all cases was 18·84 days; of recovered cases, 26·9 days; and of fatal cases, 4·8 days.

Fatality Rate was 19·2 per cent.

Complications.—Empyema, 1; jaundice, 1; pleural effusion, 1; otitis media, 1; melæna and hæmaturia, 1.

Corrected Diagnosis.—Acute bronchitis, 1; influenza, 1; tuberculosis, 1; ulcerative stomatitis, 1. In 3 cases the pneumonia followed whooping-cough.

Whooping-cough.—3 cases were admitted with whooping-cough; 1 was complicated with impetigo and post-auricular abscess. One admitted as scarlet fever was found to be suffering from whooping-cough and chickenpox.

Cerebro-Spinal Meningitis.—3 cases were admitted as such. In one case the diagnosis was confirmed and the child died. One was registered as post-influenzal meningitis and recovered. The third was diagnosed as acute rheumatism with purpura and died.

Miscellaneous Cases Discharged during 1929.

	Recovered.	Died.
Amœbic Dysentery,	1	—
Chill,	2	—
Cerebral Hæmorrhage,	—	1
Cerebral Thrombosis,	1	—
German Measles,	9	—
Hyperthyroidism,	1	—
Hystero-epilepsy,	1	—
Infantile Diarrhœa,	1	—
Influenza,	2	—
Pelvic Cellulitis,	1	—
Pressure Sores,	1	—
Quinsy,	1	—
Rheumatism (Acute),	1	1
Ringworm,	1	—
Septicæmia following burn,	1	—
Sinusitis (Acute),	1	—
Swab positive,	7	—
Tonsillitis,	3	—
Vaccination (Sepsis),	3	—
Verminous,	6	—

SANATORIUM.

Admissions and Discharges.

In Residence 1st Jan., 1929.	Admitted during 1929.	Discharged during 1929.	Died.	In Residence 31st Dec., 1929.
21	43	35	8	21
		43		

3 patients were readmitted, 2 completed the second period of residence, and 1 was in hospital at end of the year. The following statistics deal with the remaining 41 patients discharged or who died during the year. 24 of these cases were pulmonary, 13 non-pulmonary, and 4 non-tuberculous.

Places of Residence.—Of the total patients discharged 32 resided in the Upper Ward, 7 in the Burgh of Lanark, and 2 in the Burgh of Biggar. Carluke, 8; Carstairs, 1; Coalburn, 4; Dolphinton, 1; Douglas, 1; Douglas Water, 1; Douglas West, 1; Forth, 1; Lanark, 3; Leadhills, 3; Lesmahagow, 3; Kilncadzow, 1; Kirkfieldbank, 3; Kirkmuirhill, 1; Burgh of Lanark, 7; Burgh of Biggar, 2. Total, 41.

Age and Sex.—The cases discharged are shown in the following table classified according to age and sex, and according to age groups for both sexes. In each age group the number of pulmonary, non-pulmonary, and non-tuberculous cases is shown :—

Periods.	Males.	Females.	T.		Pul.	N. Pul.	Non T.B.	T.
-5	1	2	3	Pre-school age	1	1	1	3
-10	4	2	6	School age	2	3	1	6
-15	3	3	6		3	2	1	6
-20	1	1	2	Adolescence	1	1	—	2
-25	5	—	5		3	1	1	5
-30	3	3	6	Early Maturity	5	1	—	6
-35	2	3	5		5	—	—	5
-40	3	1	4		3	1	—	4
-45	—	—	—		—	—	—	—
-50	—	—	—	Late Maturity	—	—	—	—
-55	1	—	1		1	—	—	1
-60	1	1	2		1	1	—	2
-65	1	—	1		1	—	—	1
	25	16	41		26	11	4	41

Duration of Residence.

RESIDENCE IN DAYS.

	Maximum.	Minimum.	Average.
Pulmonary, - - -	308	1	105
Non-Pulmonary, - -	415	42	191
Non-Tuberculous, - -	290	40	163

Transfers to other Institutions.—Hairmyres, 1; Stonehouse, 1; Glasgow Royal Infirmary, 2.

Transferred to Infectious Diseases Hospital.—Diphtheria, 1; positive swabs, 6; empyema, 1.

Pulmonary Cases Discharged—

24.

The majority of the cases showed extensive and advanced disease.

Duration of Illness, recorded at 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	T.
GI,	3	1	—	—	—	—	4
GII,	—	2	—	—	—	5	7
GIII,	2	3	1	1	1	5	13

Duration of Illness of Fatal Cases.—7 cases 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	2	—	1	—	1

General Results of Treatment—

Classification on Admission.	Very much Improved.	Improved.	Stat.	Worse.	Died.
GI,	3	1	—	—	—
GII,	4	2	1	—	—
GIII,	—	2	2	2	7

Sputum Examinations—

Classification on Admission.	Positive.	Negative.	No Spit.
GI, - -	—	3	1
GII, - -	4	3	1
GIII, - -	8	5	—

Non-Pulmonary Cases Discharged—

13.

13 cases were discharged during the year. They were classified as follows :—

Abdomen, 5; cervical adenitis, 1; hip, 2; pelvis, 1; rib, 1; spine, 2; wrist, 1.

Duration of Illness.—Recorded at time of admission and stated at monthly periods was as follows :—

1-3	3-6	6-12	12-18	18-24	Over 24	T.
3	2	3	—	2	3	13

One spinal case died, the duration of illness from date of onset to that of death being 2 years 3 months.

General Results of Treatment—

Very much Improved.	Improved.	Stat.	Worse.	Died.
6	4	2	—	1

Non-Tuberculous Cases—

4.

Asthma, 1; foreign body in knee joint, 1; intra articular lipoma of knee-joint, 1; pulmonary fibrosis, 1.

The two knee cases were transferred to Glasgow Royal Infirmary after consultation with Mr. Donald Duff.

X-ray Examinations.—14 patients were X-rayed at the County Hospital, Motherwell.

Other Infections.—1 male patient developed diphtheria after being in the Sanatorium for 4 months. He was transferred to the Diphtheria Pavilion. Six other patients were found to have positive swabs and were isolated. One child (aged 1 year) developed chicken-pox 2 months after admission. It was interesting to note that another child, aged 6, was recovering from an attack of "shingles."

Operations.—The following operations and consultations on Infectious Hospital and Sanatorium patients were undertaken by Mr. Donald Duff :—

Empyema, 1; mastoidetomy, 3; T.B. knee, 2; T.B. dactylitis, 1.

The Staff.

The Indoor Staff on 31st December, 1929, included 1 resident physician, 1 matron, 3 sisters, 5 staff nurses, 12 probationers, and 15 maids.

The Outdoor Staff consisted of 1 engineer attendant, 1 fireman, 1 chauffeur, 1 gardener, 1 assistant gardener, and 1 telephone operator.

The hospital was not considered large enough to pass as a training school for nurses. It was arranged, however, that nurses should have lectures on elementary anatomy and physiology, hygiene, and the theory and practice of nursing in Roadmeetings Hospital, and that having passed the preliminary examination they should complete their training at Motherwell County Hospital.

Staff Illnesses.—17 nurses and 9 maids were warded for the following diseases:—Acute rheumatism, 1; paratyphoid fever, 2; chill, 1; scarlet fever, 3; diphtheria, 4; sinusitis (acute), 1; German measles, 1; swab positive, 3; hystero-epilepsy, 1; tonsillitis, 3; hyperthyroidism, 1; vaccination, 3; influenza, 2;

The sick staff lost 589 working days.

Inoculation.—9 were vaccinated with T.A.B. vaccine against the enteric group of diseases.

Vaccination.—12 were vaccinated in April during the smallpox outbreak.

Schick and Dick Tests.—30 of the staff had this carried out, 3 who were Dick positive developed scarlet fever within a fortnight of entering hospital before immunisation could be carried out.

Ambulance Work.

		Miles.
Admissions,	Infectious Diseases Hospital,	4,809
	Sanatorium,	272
Discharges,	Infectious Diseases Hospital,	3,281
	Sanatorium,	310
Others,		2,335
		11,007

Ambulance.

A new Albion Ambulance was built to special order and has been in use since May.

Grounds and Buildings.

The grounds have been laid out partly in shrubs, partly in grass. A motor mower was purchased, which proved of great benefit. A kitchen garden was made, which supplies vegetables for hospital use. During the summer months a temporary gardener was employed.

Storm doors were provided for the Isolation Pavilion. At the commencement the corridor of this pavilion was entirely open.

Report of the Sanitary Inspector.

HOUSING.

Building By-laws.—During the year 47 sets of plans were lodged in accordance with the requirements of the Building By-laws. These plans related to new buildings, alterations, and additions to existing properties.

The plans, together with the relative schedules of information, were examined, reported upon, and submitted to the Public Health Committee. The tabular statement appended shows the nature of the plans dealt with under the By-laws.

In all 240 inspections were made of new buildings and 111 smoke-tests were applied to drainage systems. In addition a number of smoke-tests were applied to drains of existing buildings.

In addition to the houses erected by the District Committee under their Housing Schemes, which are referred to later, 11 houses were provided by private enterprise during the year, particulars of which are as follows:—

House of 6 apartments, scullery, bathroom, and wash-house, with butcher's shop and cellars on ground flat, at Main Street, Douglas.

Villa of 5 apartments, bathroom, scullery, and garage at Woodhall Road, Braidwood.

Bungalow of 5 apartments, bathroom, and scullery at Old Kilncadzow Road, Lanark.

Two semi-detached houses, each of 4 apartments, bathroom and scullery, at Bellfield Sanatorium, Lanark.

Cottage of 2 apartments, scullery and earth-closet, at Candybank, Biggar.

Dwelling-house of 3 apartments, scullery and water-closet (converted from business premises), at Carstairs Village.

PARISH.	Number of Plans.					New Houses and Apartments					Apartments added to Existing Houses.						
	Submitted	Passed	Rejected	Not proceeded with	Passed subject to alterations	Two	Three	Four	Five and Upwards	Total	One	Two	Three	Four	Five and Upwards	Total	Bathrooms, Sculleries, &c.
Biggar,	7	7	...	...	...	1	...	...	...	1	...	2	1	...	...	3	2
Carluke,	9	9	...	...	1	...	...	1	1	2	1	1	1	...	1	4	4
Carmichael,	2	2	...	...	1	...	...	...	...	...	1	...	...	...	...	1	1
Carnwath,	5	5	...	...	...	...	...	...	...	...	...	2	1	...	...	3	3
Carstairs,	2	2	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Covington,	3	3	...	...	...	1	...	...	...	1	1	...	...	...	...	1	1
Crawford,	2	2	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
Crawfordjohn,	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Douglas,	1	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Lanark,	3	3	...	...	...	...	...	3	1	4	...	...	...	...	...	...	...
Lesmahagow,	9	9	...	...	...	...	...	...	...	...	3	2	...	...	...	5	6
Symington,	2	2	...	...	...	1	...	...	...	1	...	...	...	...	...	...	1
Wiston,	1	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Total,	47	47	...	...	2	3	2	4	3	12	6	8	3	...	1	18	19

The following 4 houses were erected under the Housing, 1923, Subsidised Scheme—£60 :—

Bungalow of 3 apartments and bathroom at Roberton.

Bungalow of 4 apartments and bathroom at Ingleneuk, Braidwood.

Cottage of 2 apartments, bathroom and scullery, at Law Farm, Thankerton.

Bungalow of 3 apartments, kitchenette and bathroom—off Carlisle Road, Lanark.

Other plans submitted related to alterations and additions to existing buildings, &c., which are as follows :—

Erection of wash-house, annexe to existing dwelling-house and summer dwelling-house, at Symington; erection of wash-house at Schoolhouse, Braidwood; alterations and extensions to business premises at Ponfeigh; renovations and extension to dwelling-house, comprising 2 rooms, pantry, water-closet, and renewal of drainage system at Auchengray; addition of room to existing house at Carluke; addition of bedroom and bathroom, renewal of roof and drainage system at Sandilands; conversion of old church into grocery store at Crossford; addition of upper flat (2 bedrooms and bathroom), renewal of drainage system at Crawford; addition of wing to existing house, forming 2 apartments and bathroom, at Biggar; internal alteration of partitions to form lounge-hall, dining-room, kitchen, scullery, servants' quarters, and erection of garage, engine-house and bathroom at Abington; conversion of shop premises into a dwelling-house of 3 apartments and bathroom at Tarbrax; internal alterations to existing cottage providing 3 apartments, scullery, bathroom, wash-house, and cellar at Braidwood Estate, Braidwood; erection of new residential wing on site of existing kitchen court, comprising 16 apartments, at Braidwood House, Braidwood; erection of hall, with billiard-room, ante-rooms, and sanitary accommodation, at Wilsontown (Welfare Hall); erection of storey to annexe at rear of existing dwelling-house providing a bedroom and bathroom; addition of bedroom, pantry and wash-house to existing cottage at Lesserlinn Farm, Lesmahagow; erection of garage, tool-house, coal-cellar, and larder at Carwood, Biggar; erection of new primary school, consisting of 6 class-rooms, staff-rooms, and cloakroom, with assembly-

hall and lavatories, at Biggar; erection of car lock-ups and garage workshop at Carluke; addition of storey, comprising 2 bedrooms and a bathroom to dwelling-house, on Carlisle Road, Lesmahagow; erection of wooden structure (fruiterer's shop) at Forth; alterations to farmsteading and erection of ploughman's cottage of 2 apartments, scullery and earth-closet, at Biggar; erection of "lean-to" shed to house electric-lighting plant and saw-bench at Symington House, Symington; addition of bedroom to dwelling-house at Auchren Farm, Lesmahagow; erection of brick-built garage replacing existing wooden one at Law, Carluke; addition of 2 bedrooms and bathroom at Police Station, Forth; addition of bedroom, scullery, and bathroom at dwelling-house, Thankerton; alterations to cottage—heightening of walls and slating of roof, roughcasting, strapping and lathing of external walls—at Covington; renovations to 6 houses—re-roofing and general repairs, with introduction of water and water-closets for each house at Knowetop, Auchenheath; addition of annexes to existing property to house sanitary conveniences at Crossford; alterations and general renovations with the addition of scullery and bathroom at Bogside Farm, Lesmahagow; extension of premises to be used as billiard saloon (sanitary accommodation provided) at Carstairs Junction; addition of sitting-room, bedroom, scullery, and water-closet to existing hotel buildings at Biggar; addition of wing to existing cottage providing sitting-room, maid's room, and box-room at East Lindsaylands, Biggar; conversion and renovation of existing building, providing cafe, with kitchen and conveniences, Crawford; addition to South Lodge, providing bedroom, bathroom, and scullery, at Auchtyfardle, Lesmahagow; addition of garage to existing house and other minor internal alterations at Mount Pleasant, Biggar; alterations and additions to extend dining-room and provide new bathroom and maid's room at Carluke.

State-aided Housing Schemes.—The appended table shows the progress of the various housing schemes completed or being undertaken by the District Committee under their subsidy schemes approved by the Department of Health for Scotland.

NOTE OF HOUSES BUILT AND IN COURSE OF ERECTION BY THE DISTRICT COMMITTEE UNDER THE VARIOUS SCHEMES.

Situation.	Houses Built under Addison (1919) Scheme.	Houses built under Scheme for Improvement of Insanitary Areas	Houses built under Chamberlain (1923) Scheme.	Houses built under Housing (Financial Provisions) Act, 1924.	Houses in course of erection under the Housing (Financial Provisions) Act, 1924.	Total Number of Houses Built or in course of Erection.
Auchenheath, -	20	...	...	...	...	20
Blackwood, -	52	...	...	16	...	68
Coalburn, - -	84	32	...	12	...	128
Lesmahagow, -	106	...	...	40	...	146
Douglas, - -	44	...	...	12	...	56
Ponfeigh and Rigside, - -	42	...	24	44	16	126
Forth, - -	58	40	...	40	...	138
Carluke, - -	102	28	...	160	...	290
Law, - - -	46	...	...	32	...	78
Carstairs, - -	14	...	...	24	8	46
Carstairs Junction,	50	...	...	52	8	110
Carnwath, - -	...	...	12	24	...	36
Kirkfieldbank, -	...	...	...	8	...	8
Pettinain, - -	...	...	...	8	...	8
Thankerton, -	...	...	...	8	...	8
Crawford, - -	...	...	...	8	...	8
Glespin, -	...	...	...	16	...	16
Abington, - -	...	...	...	6	...	6
Braidwood, -	...	...	...	8	...	8
Biggar, - -	...	...	...	12	...	12
Symington, -	...	...	...	8	...	8
Totals, -	618	100	36	538	32	1,324

Housing. — Improvement of Insanitary Areas Scheme. — The following table shows the progress made as at 31st December, 1929, with the closure and demolition in the years 1925, 1926, 1927, 1928, and 1929 :—

	Number of Houses in respect of which Orders made					Number of Houses Vacated					Number still Occupied	Number of Houses Demolished	Number of Houses Reconstructed
	1925	1926	1927	1928	1929	1925	1926	1927	1928	1929			
Parish of Carlnke.													
25 Clyde Street,	1	...	...	...	...	1	...	...	...	...	...	1	...
Heather Row,	6	...	...	...	..	6	...	...	...	...	...	6	...
66-70 Chapel Street,	3	...	...	...	...	1	...	1	1	...	...	...	...
82-86 Chapel Street,	3	...	...	...	...	2	...	1	...	...	...	...	...
119-123 Carnwath Road,	3	...	...	...	...	3	...	...	...	...	...	...	...
Engine Row,	7	...	...	...	...	7	...	...	...	...	...	7	...
Mauldslie Road, Law,	2	...	...	...	...	2	...	...	...	...	...	2	...
Houses at Braidwood,	...	...	4	...	...	...	...	2	2	...	...	4	...
House at Braidwood,	...	...	1	...	...	...	...	...	1	...	...	...	...
Mount Vernon, Orchard Street,	...	...	...	...	1	...	...	...	...	1	...	...	...
Kilncadzow,	...	...	...	...	4	...	...	...	...	3	1	...	...
Parish of Carnwath.													
Haywood,	55	...	...	..	...	20	26	6	...	...	3	52	3
Bank Row, Forth,	6	...	...	...	...	5	...	1	...	...	...	6	...
Brachead (single house),	...	...	...	1	...	...	...	...	1	...	...	...	...
Parish of Carstairs.													
Haininghead,	...	1	...	...	...	...	1	...	...	...	...	...	...
Eastend, Carstairs Village,	...	...	...	6	...	...	...	...	3	3	...	6	...
Avenue Road, do.,	...	...	...	3	...	...	...	...	3	...	...	...	...
Church View, do ,	...	...	...	1	...	...	...	...	...	...	1	...	...
Forrest's Buildings, do.,	...	...	...	3	...	...	...	...	2	...	1	...	...
Smithy Row, do.,	...	...	...	2	...	...	...	...	2	...	...	...	...
Opposite Eastend Cottages,	...	...	...	2	...	...	...	...	2	...	...	...	...
*West Lampits, Carstairs Junction,	...	...	...	3*	...	...	...	...	3*	...	...	...	...
Ravenstruther,	...	...	...	...	2	...	...	...	...	2	...	...	...

Parish of Douglas.															
New Row, Rigside,	...	10	...	...	...	...	...	...	...	...	10	...	10	...	
Parish of Crawfordjohn.															
Overtoun Cottage,	..	...	1	...	...	...	...	...	...	1	...	...	...	...	
Parish of Lesmahagow.															
Auchenbegg Row, Coalburn,	6	...	...	...	...	6	...	...	...	...	...	6	...		
Bankend Row, Coalburn,	41	...	...	...	...	9	10	15	6	...	1	40	...		
Sawdust Row, Coalburn,	4	...	...	...	...	...	...	4	...	...	...	4	...		
Brocketsbrae, Lesmahagow,	6	...	...	...	...	6	...	...	...	...	...	6	...		
Old Schoolhouse, Kirkfieldbank,	...	...	3	...	...	...	...	3	...	...	...	3	...		
Littlegill Row, Auchenheath,	...	...	16	...	...	...	...	...	3	2	11	...	8		
Longlea Terrace, Auchenheath,	...	...	25	...	...	...	...	...	6	6	13	9	...		
Engine Row, Auchenheath,	...	...	3	...	...	...	...	...	1	1	1	...	...		
Townfoot Cottages, Auchenheath,	...	...	2	...	...	...	...	...	...	2	...	..	...		
*Dublin, Kirkfieldbank,	...	...	...	2*	...	...	...	....	2*	...	...	...	..		
Main Street, Kirkmuirhill,	...	...	...	4	...	...	...	...	4	...	...	...	..		
Main Street, Kirkfieldbank,	...	...	...	...	4	...	...	...	...	2	2	...	...		
Summerhill, Blackwood,	...	...	...	...	3	...	...	...	...	3	...	...	...		
Parish of Symington.															
Townfoot, Symington,	...	...	...	2	...	...	...	...	1	1	...	...	..		
Total,	143	11	55	29	14	68	37	33	44	36	34	162	11		
			252					218							

* These houses were closed voluntarily.

Housing (Inspection of District) Regulations, 1928.—The number of houses inspected during the year was 1,472. Of this number 14 were considered to be so dangerous or injurious to health as to be unfit for human habitation.

Six representations, relating to 14 houses, were made to the Local Authority with a view to the making of Closing Orders.

The number of dwelling-houses in respect of which Closing Orders were made was 14.

One hundred and twenty-four dwelling-houses, the defects in which were remedied without either the making of Closing Orders or the serving of notices under Section 3 (1) Housing (Scotland) Act, 1925, were dealt with.

A dwelling-house situated at Braidwood, Carluke, which had been the subject of a Closing Order in 1927, was found to be re-occupied by a family during the year. On inquiry it was found that the tenant had purchased the house from the owner. Proceedings were taken against the offender under the Housing (Scotland) Act, 1925, and the Sheriff ordered him to leave this house within a month. This period was extended as it is the intention of the present owner to make such improvements and repairs to the property as required by the Local Authority, with a view to having the Closing Order determined.

Housing (Scotland) Act, 1925.—The number of cases where intimations were given under Section 20 (1) as to insufficient water-closet accommodation :—

(*a*) cases where requirement complied with by owners, 120 water-closets;

(*b*) cases where works carried out by Local Authority after failure of owner to do so, nil; and

(*c*) cases still pending, 9.

Twenty-four houses of 2 apartments were erected by the District Committee during the year.

Of the 16 houses at Littlegill Row, Auchenheath, which were the subject of a Closing Order in the year, 1927, the owner submitted plans for the renovation of 8 of these dwellings. The Committee considered that these renovations and repairs were sufficient to render the houses mentioned as being fit for occupation and accordingly partially determined the Closing Order.

Housing (Scotland) Act, 1925, *and Housing, Town Planning, &c. (Scotland) Act*, 1919.—With a view to assisting the County Assessor's Department, the inspection of properties which were likely subjects for closure was undertaken in the fore-part of the year, the latter part of the year being devoted chiefly to the introduction of water and sanitary conveniences to existing houses as well as the remedying of general defects.

It is satisfactory to note that since the formation of Crossford and Hazelbank Drainage District in 1928 the majority of property owners have complied with the notice served on them calling for the provision of sanitary conveniences and the introduction of proper drainage systems to discharge into the sewers provided by the Local Authority.

The sanitary conveniences provided at the instance of the Public Health Department are detailed in the following tabular statement, and indicate that during the year 120 water-closets were introduced to existing properties besides a considerable number of sinks :—

TABULAR STATEMENT.

Parish.	Locality.	Number of Tenants.	Water-closets.	Baths.	Wash-hand Basins.	Sinks.	Sculleries.	Wash-houses.	Coal cellars.
Carluke,	Mayfield Road, - -	16	16	...	...	16	16	...	...
	Braidwood (Nellfield Works), -	...	2	...	1	...	...	...	...
	Lawhill, - - -	1	1	...	1	1	...	...	...
	Lower Braidwood, - -	1	1	...	...	1	...	...	...
		18	20	...	2	18	16	...	...
Carstairs,	Ravenstruther, - -	1	1	...	...	...	...	...	...

TABULAR STATEMENT—(*Continued*).

Parish.	Locality.	Number of Tenants.	Water-closets.	Baths.	Wash-hand basins.	Sinks.	Scullieries.	Wash-houses.	Coal-cellars.
Carnwath,	Main Street, - -	1	1	...	...	...	...	...	...
	Upper Haywood Farm, -	1	1	1	1	1	...	...	...
	Rootpark, Wilsontown, -	2	2	...	...	2	...	...	...
	Do., do., -	1	1	1	1	1	...	1	...
	Boghead Farm, - -	1	1	1	1	...	...	...	...
		6	6	3	3	4	...	1	...
Douglas.	Sloan's Property, - -	1	1	...	...	1	...	...	1
Dolphinton,	Kirkhouse Farm, - -	1	1	1	1	1	...	...	...
Crawfordjohn,	Abington, - - -	2	2	...	...	2	...	...	...
	Do., - - -	2	2	...	...	2	...	...	...
	Do., - - -	1	1	...	...	1	...	...	...
		5	5	...	...	5	...	...	...
Lanark,	Twin Houses, - -	1	1	...	...	1	...	..	..
Lesmahagow,	Lesmahagow—								
	Meadowhouse, - -	4	1	...	...	4	...	...	...
	Newtown, - -	2	1	...	...	...	...	...	...
	Craighead, - -	1	1	...	...	1	...	...	...
	Birkhill, - - -	1	1	1	1	1	...	...	...
	Cairnhouses, - -	1	1	1	1	...	...	..	...
	Blackwood—								
	Birkwood Square, -	6	2	...	...	...	...	...	...
	Kirkmuirhill—								
	Bent Schoolhouse, -	1	1	...	...	...	...	...	...
	Coalburn—								
	Braehead, - -	1	1	...	...	...	...	...	...
	Netherfield Cottage,	1	1	1	1	1	...	...	...
	Crossford—								
	Holm Road, - -	1	1	...	...	...	...	...	...
	Do., - -	1	1	...	...	...	...	...	...
	Myora, Holm Road,	1	1	...	...	1	...	..	...
	Carry forward, -	21	13	3	3	8	...	...	...

TABULAR STATEMENT—(*Continued*).

Parish	Locality.	Number of Tenant.	Water-closets.	Baths.	Wash-hand basins.	Sinks.	Scullieries.	Wash-houses.	Coal-cellars.
	Brought forward,	21	13	3	3	8	...	...	...
	Crossford—*Continued.*								
	Holm Road, - -	2	1	...	...	2	...	...	...
	Do., - -	1	1	...	...	1	...	...	...
	Do., - -	1	1	...	...	1	...	...	...
	Elmbank, - -	2	2	...	...	...	...	1	...
	Mossbank, - -	1	1	...	...	...	...	...	...
	The Bungalow, -	1	1	...	...	...	...	...	...
	Little Holm Road, -	1	1	...	...	1	...	...	...
	Vale Lodge, - -	1	1	...	...	1	...	...	...
	Hut Lodge, - -	1	1	...	...	1	...	...	...
	Helena Cottage, -	2	1	...	...	2	...	...	...
	Leiper's Buildings, -	5	3	...	...	5	...	...	...
	Neilson's Buildings,	9	5	...	...	9	...	...	...
	Lithgow's Buildings,	4	2	...	...	4	...	...	...
	Main Street, - -	2	2	...	...	...	...	...	...
	Braeview, - -	3	2	...	...	3	...	...	...
	Mossbank Cottage, -	1	1	...	...	1	...	...	...
	Garnguernsey Cottage,	1	1	...	...	1	...	...	...
	Beehive Cottage, -	1	1	...	...	1	...	...	...
	Frame's Buildings, -	8	4	...	...	8	...	...	...
	Gladstone Cottage, -	1	1	1	1	1	...	...	...
	M'Cowat's Buildings,	6	4	...	...	5	...	...	...
	Post Office, - -	1	1	...	...	...	...	...	...
	Garnguernsey, - -	1	...	...	...	1	..	...	...
	Manseview, - -	1	1	1	1	...	...	...	...
	M'Millan's Land, -	4	3	...	...	4	...	...	...
	Cambus Cottage, -	1	1	1	1	1	...	...	...
	Orchard View,	1	1	...	...	...	...	...	...
	Hazelbank—								
	Chestnut Cottage, -	1	1	...	...	1	...	...	...
	The Cottage, - -	1	1	...	...	...	...	...	...
	The Braes, - -	2	1	...	...	2	...	...	...
	Alderbank, - -	1	1	...	...	1	...	...	...
	Braeview, - -	4	3	...	...	4	...	...	...
	Rose Cottage, - -	1	1	...	...	1	...	...	...
	Carry forward, -	94	65	6	6	70	...	1	...

TABULAR STATEMENT—(*Continued*).

Parish.	Locality.	Number of Tenants.	Water-closets.	Baths.	Wash-hand basins.	Sinks.	Sculleries.	Wash-houses.	Coal-cellars.
	Brought forward,								
	Kirkfieldbank—								
	Old Town, - -	1	1	...	...	...	...	...	...
	Louisville, - -	1	1	1	1	1	...	...	...
	The Stell, - -	4	1	...	...	4	...	...	...
	Rock Cottage, - -	1	1	...	...	1	...	...	...
	Hawthorn Cottage, -	1	1	1	1	...	...	...	...
	The Stell, - -	1	1	...	...	1	...	...	...
	Clydeview, - -	1	1	...	...	1	...	...	...
	Ramoth, - - -	11	5	...	...	2	...	...	...
		115	77	8	8	80	...	1	...
Libberton,	Yett Farm, - - -	1	1	1	1	1	...	...	...
Symington,	Ballgreen, - - -	1	1	...	...	...	...	...	...
	Townfoot, - - -	4	3	...	...	3	...	...	...
	Anniesland, - - -	1	1	...	...	...	...	...	...
		6	5	...	...	3	...	...	...
Wiston,	Chesterhall Cottages, -	2	2	2	2	2	...	...	...
	Upper Ward, - - -	157	120	15	17	116	16	2	1

The Board's circular of 1st September, 1925, called upon Sanitary Inspectors to survey the more populous areas in their districts to ascertain—

(1) the number of common water-closets in use, showing separately the number serving 2, 3, 4, and 5 or more tenants respectively;

(2) the number of houses without water supply and sinks inside the house; and

(3) the number of (*a*) dry-closets, (*b*) privy-middens, and (*c*) ash-pits, showing for each separately the number serving 2, 3, 4, and 5 or more tenants respectively.

	Carluke.	Ponfeigh.	Carstairs Village.	Kirkfieldbank.	Carnwath.	Carstairs Junction.	Law.	Blackwood and Kirkmuirhill.	Coalburn.	Douglas.	Lesmahagow.	Crossford.	Forth and Wilsontown.
Number of occupied houses, -	1,484	258	134	210	231	274	393	331	400	342	643	143	419
Water closets—													
1 for each house, - -	807	255	75	65	157	194	159	146	234	162	369	42	195
Common to 2 tenants, -	164	...	15	8	1	28	12	22	17	22	48	31	3
Do. 3 do. - -	39	...	8	2	6	...	3	24	9	10	36	...	4
Do. 4 do. - -	23	...	1	8	...	...	...	...	2	7	10	...	1
Do. 5 tenants and over,	3	...	...	1	...	...	...	...	1	2	4	...	...
Number of houses without water supply or sinks inside, -	454	...	53	103	64	2	125	123	112	46	147	34	145
Number of houses with water supply and sink inside, -	1,030	258	81	107	167	272	268	208	288	296	496	109	274
Number of houses with baths, -	368	91	44	19	79	110	98	98	169	34	240	6	151
Privy-middens—													
1 for each house, - -	55	3	1	52	31	...	98	26	26	35	9	10	43
Common to 2 tenants, -	29	...	...	5	3	...	7	6	28	12	4	4	29
Do. 3 do. - -	3	...	...	6	5	...	3	4	2	3	1	4	11
Do. 4 do. - -	5	...	...	2	...	...	15	2	...	...	...	1	8
Do. 5 tenants and over,	6	...	...	1	...	...	4	1	...	...	...	1	1
Totals—													
Common water-closets, -	229	...	24	19	7	28	15	46	29	41	98	31	8
Do. privy-middens, -	43	...	...	14	8	...	29	13	30	15	5	10	49

As time permits this survey is being undertaken, and the details for the areas completed are given on page 181. The information for those areas not yet undertaken will be reported upon annually as the work is completed.

Reconstruction Schemes.—Reference was made in last year's Annual Report to the properties known as Tinto View and Railway Terrace, Coalburn, comprising in all 34 dwelling-houses. These houses were owned by Messrs. William Barr & Sons, coalmasters, who at one time owned a large colliery in the vicinity.

The owners gave an undertaking to the Local Authority to have the houses emptied and demolished so soon as they could get the tenants out. Since then, however, Mr. William Barr has died, and the properties are now in the hands of a liquidator. The liquidator has now sold the property known as Railway Terrace to a private individual, who proposes to put all the houses into a habitable condition, providing modern conveniences, but, before doing so, he has to submit a plan. With regard to Tinto View Terrace, the liquidator, I understand, has sold the property to a building contractor in Coalburn with a view to having the houses demolished.

Overcrowding.—There is no overcrowding of a serious nature to report.

Sufficiency of Working-class Dwellings.—The needs of the District appear to be fairly well met in this respect with the completion of the committee's housing schemes at Ponfeigh, Rigside, Carstairs Village, and Carstairs Junction.

Housing (Rural Workers) Act, 1926.—During the year a circular was received from the Department of Health for Scotland relating to the housing conditions for farm servants in the District. This circular was as follows:—

"Department of Health for Scotland,
"125 George Street,
"Edinburgh, 2nd April, 1929.

SIR,

"HOUSING OF FARM SERVANTS.
"HOUSING (RURAL WORKERS) ACT, 1926.

"Repeated representations have been made to the Department of Health for Scotland by the Scottish Farm Servants' Union as to the condition of houses occupied by farm servants in Scotland and the need for further action being taken to bring the houses in question up to a reasonable standard of habitability, including the introduction of water and sanitary conveniences thereto.

"It would seem from the information furnished to the Department by the above Union that the condition of many of the houses in these respects is far from satisfactory, and I am directed to impress on Local Authorities the desirability of their taking all possible steps to secure the existing defects being remedied. The statutory powers at present available to Local Authorities, if fully used, are such as should secure very considerable improvements. These powers are contained principally in the Housing (Scotland) Acts, and are shortly as follows :—

"As regards houses that are structurally defective and not in a proper state of repair, Local Authorities have power, in terms of Section 3 of the Housing (Scotland) Act, 1925, to call upon the owners to execute the works required to make the houses in all respects reasonably fit for habitation. A similar result may also be obtained by the exercise of the powers contained in Section B of the same Act.

"The provision of adequate water-closet or earth-closet accommodation can be required in terms of Section 20 of the Housing (Scotland) Act, 1925. It will be noted from the terms of that section that, if it is not reasonably practicable to provide a water-closet, an earth-closet must be provided.

"The statutory powers dealing with the supply of water to individual houses are contained in Section 40 of the Housing Town Planning, &c. (Scotland), Act, 1919. Under that section a supply of water must be brought into each house if it is reasonably practicable to do so, and, if it is not practicable to introduce water into the house, a supply must be provided immediately outside the house or as near thereto as is reasonably practicable.

"For the full exercise of these powers an adequate inspection of the houses of farm servants in the districts of Local Authorities is necessary. In this connection reference is made to the terms of the circular of 28th June, 1928, issued by the Scottish Board of Health on the subject of the housing inspection required to be made by Local Authorities in terms of Section 5 of the Housing (Scotland) Act, 1925. It is there pointed out that for the effective discharge of the duties of Local Authorities under that section and the relative regulations enclosed in the circular above referred to, regular and systematic inspection of the houses in their districts is required, and I am again to urge that this should be carried out.

"It is also pointed out in that circular that use might be made of the assistance available under the Housing (Rural Workers) Act, 1926, for the purpose of securing desirable improvements on houses. Assistance under that Act may be given not only in aid of structural alterations and improvements, but in aid of the cost of the introduction of adequate water and drainage facilities (including the provision of sculleries, water-closets, earth-closets). It appears to the Department that, if a survey of the housing conditions of farm servants in the areas of Local Authorities were made, and the defects disclosed brought to the notice of individual owners, along with particulars of the

assistance that is available under schemes in operation, in terms of the Housing (Rural Workers) Act, 1926, in respect of houses that can be made in all respects fit for habitation, very considerable progress would be made in improving the conditions under which farm servants live, a result which would be to the material benefit of the agricultural industry.

"I have accordingly to ask that your Local Authority will at an early date consider the suggestions contained in this circular, and that you will thereafter inform me of the action they propose to take thereon.

"I am, SIR,

"Your obedient Servant,

"JOHN JEFFREY."

The committee, having carefully considered the terms of the circular, gave definite instructions to the Medical Officer of Health to have the District surveyed, and recommended that the work should be overtaken in parishes, which should be reported upon as each parish was completed.

At the close of the year two parishes had been completely surveyed, viz., Lanark and Carstairs. In the Parish of Lanark there are 27 farms where farm servants might be housed in bothies or in cottages. The committee gave instructions that the owners of 11 farms, which were found to lack the necessary water supplies and sanitary conveniences, together with any other necessary repairs, should be communicated with and their attention particularly called to the financial assistance available under the Housing (Rural Workers) Act, 1926. This was done, and I have to report that some of the improvements have already been completed, while in others the work has been put into the hands of architects or tradesmen.

Similarly, in the Parish of Carstairs, where there are 21 farms, 9 owners were communicated with, and some outstanding improvements are already in the tradesmen's hands.

As an instance of what has been accomplished under the above scheme, I might mention the following example: —

Extract from the Medical Officer of Health's report to the Committee.

"A farmhouse in the Parish of Carstairs has been divided into two houses of three apartments with sculleries. Houses are in good repair and fairly comfortable. A pail closet is provided. Water supply has to be carried from a well in a field about 500 yards away. This well is liable to pollution and is unsatisfactory."

The owner was asked to arrange for a connection from a trunk water main which passes the houses in question, approximately half-a-mile distant. This was agreed to and the work of providing a water-closet and sink with water laid on (in scullery) for each house is now well in hand.

Detailed information of all the improvements achieved under the above scheme would take up too much space in this report, but as copies of the original reports are being submitted to the Department of Health when completed, it is unnecessary to repeat here.

The work of surveying the remaining 18 parishes in the district is being gradually overtaken as time permits and it is hoped that in the current year the work will be completed.

Eighteen applicants for grants under the Housing (Rural Workers) Act, 1926, were approved by the Committee. These related to the introduction of water and water-closet accommodation, together with general repairs to 68 houses, viz. :—

Windyshields, Carstairs, ...	1 house.
Crofthills, Carnwath, ...	1 house.
Littlegill Row, Auchenheath, ...	8 houses.
Old Town, Kirkfieldbank, ...	1 house.
Mayfield Place, Carluke, ...	16 houses.
Teaths Cottage, Lesmahagow, ...	1 house.
Lawhill Lodge, Tarbrax, ...	1 house.
Beveridgehall, Forth, ...	3 houses.
Pond Cottage, Braidwood, ...	1 house.
Frame's Buildings, Crossford, ...	9 houses.
Covington Village, ...	1 house.
Smith's Buildings, Crossford, ...	6 houses,
Lamington Village.	1 house.
Knowetop, Auchenheath, ...	6 houses.
Nethanfoot, Crossford, ...	2 houses.
Bankhead Farm, Lanark,...	2 houses.
Upper Meadowbank, Crossford, ...	8 houses.

WATER SUPPLY.

Special Water Supply Districts.

There are 16 special water supply districts in the Upper Ward, viz. :—

1. * Blackwood.
2. * Braidwood.
3. * Carluke.
4. * Carnwath and Carstairs Junction.
5. * Carstairs Village.
6. * Crawford.
7. * Crossford and Hazelbank.
8. Douglas.
9. Forth.
10. * Kirkfieldbank.
11. * Law.
12. * Lesmahagow and Coalburn.
13. * Ponfeigh.
14. Roberton.
15. Symington.
16. * Thankerton.

The trunk mains which traverse the Upper Ward District, and owned by Motherwell and Wishaw Water Commissioners, the Airdrie and Coatbridge Water Commissioners, and the Middle Ward District Committee of the County of Lanark respectively, supply 12 of the above-mentioned districts, either wholly or partially. Such districts are marked by an asterisk (*) in the list.

For the past two years the Local Authority have had under consideration the question of obtaining a water supply within the Upper Ward to meet the needs of the whole district. At the close of the year under report no definite decision had been arrived at by the Local Authority regarding any of the schemes prepared by the District Engineer, but negotiations are still proceding.

Symington.—In last report it was mentioned that the District Clerk had been in communication with the agents of the Superior for St John's Kirk, Symington, with a view to the purchasing of an additional 10,000 gallons per day to augment the then existing supply of 20,000 gallons per day.

It is gratifying to note that the negotiations were satisfactorily completed and that since the additional supply has been obtained no shortage has occurred in this district.

Carstairs Junction.—Carstairs Junction is within the boundaries of Carnwath Special Water District, the original supply being obtained from Southtown and augmented by a connection from the Motherwell main. During the year several complaints were received as to the insufficiency of pressure at the elevated parts of Carstairs Junction.

The Local Water Committee have, with the officials, investigated new sources of supply at Southtown, and at present an augmentation scheme is being prepared by the District Engineer.

In connection with complaints as to turbidity a sample of water was taken from the supply at Carstairs Junction and also from the supply at Carnwath. The Chemist reported that the physical appearance of the water at Carstairs Junction would be much improved by the removal of the turbidity and deposit.

Kirkfieldbank.—It had been noted during the year that at the source of the original supply at Corehouse, Kirkfieldbank, a considerable quantity of water which supplied only a cattle trough was running to waste and the District Clerk was instructed by the Committee to communicate with the Superior with a view to obtaining this additional supply.

Permission was kindly given by the Superior for the inclusion of this supply.

Forth and Wilsontown.—This supply, which has been fully reported upon in previous years is derived from two sources, viz., a gravitation supply from Lambcatch and Skylaw, and from Throughburn, near Forth.

The supply from the latter source has to be raised from Throughburn to an elevated tank situated in Forth. For some time the pump at Throughburn had not been giving satisfaction and failed to elevate the quantity of water required. On examination the engineers reported that the pump was beyond repair and the Committee resolved to have a new pump installed. This was done during the year and a marked improvement has been effected.

Crawford.—The Medical Officer of Health received a complaint regarding the turbid condition of this water supply, and samples were procured at the Colinsburn reservoir and also from a tap in one of the dwelling-houses in the village. The analyst's report on the former showed that the sample was free from nitrogenous organic pollution and was suitable in all respects for domestic purposes, while the latter sample was free from organic pollution but was not satisfactory as a domestic supply owing to matter in suspension. This could easily be removed by filtration. A further objection was the low alkalinity. Comparison of the two samples suggests that the water may be flood-water.

Having regard to the abnormal rainfall and the position of the reservoir, the objections made by the analyst are readily understood, but normally the conditions do not exist.

Ponfeigh.—Complaint was made to the Public Health Department as to the turbid condition of this water supply, and a sample was taken from the intake at the source. The Chemist's report showed

this water to contain a considerable amount of peaty colouring matter. The results of the analysis, however, showed no evidence of pollution and that it was quite suitable for domestic purposes.

In the same connection a sample was taken from the scullery-tap in one of the dwelling-houses in the village. The analysis showed that the water was suitable in all respects for domestic purposes.

It is satisfactory to report that no serious shortages of water occurred in any part of the Upper Ward District during the year.

Private Supplies.

High Townhead, Kirkmuirhill.—On receipt of a complaint from the tenant to the effect that the water supply was unsatisfactory for domestic purposes, a sample was procured and sent to the County Medical Officer for analysis. The result of the analysis showed that the water was free from nitrogenous organic pollution, but was totally unfit for domestic or dairy purposes on account of the excessive amount of iron salts in solution and in suspension. There is a difficulty here in procuring an alternative suitable supply by gravitation.

Pleasance, Kirkfieldbank.—Three samples were taken during the year from different sources with a view to providing a suitable water supply for a proposed bungalow, and one sample taken in the year 1928. None of the samples procured were of sufficient purity for domestic purposes, and eventually the bungalow was built on another site where a supply was obtained by a connection from the Kirkfield-bank water main.

Carnwath Mill.—Following on the occurrence of a case of infectious disease, the farmer requested the department to have samples of the domestic water supply submitted for analysis. A sample for chemical analysis was taken from the tap at the kitchen sink and was clear and odourless when taken. A sample for bacteriological examination was taken from the same tap. Further samples might have been taken from the tank which is situated in a field between the farm and Kaimend but for the fact that the tank in question was covered up several feet from the surface and the exact position was not known. It was thought, however, that the water was of the same variety, if not actually from the same source, as that which supplies Kaimend.

The farmer had no complaint to make about the water except that during road repairing operations his water supply tasted distinctly of tar.

The results of analysis showed that this water was of sufficient purity for domestic purposes.

Elvanfoot Farm, Elvanfoot.—With a view to laying on a supply to their farm, the owner's agent communicated with me requesting that samples from two sources be analysed. These were procured from a spring near to the Hurl Burn and also from the burn itself. The former was found to be the better supply, and the results were communicated to the owner's agent.

Robiesland Farm.—A complaint was lodged by the tenant-farmer to the effect that the water supply laid on to his house and workers' houses was unsatisfactory and that he feared sewage was contaminating the source of supply. The supply is pumped from a spring on the policies of Bonnington Estate to a storage tank situated on the higher ground above the steading. From this tank it gravitates to the farm-house and the workers' houses.

A sample was taken from the tap at the kitchen sink in the farm-house, and at the time appeared to be clear and odourless.

The *locus* where sewage contamination was suspected to be taking place was inspected, when it was found that a drain conveying the sewage from Robiesland Farm discharges into an open ditch near to the source of the water supply. This drain and ditch were at a much lower elevation than the spring, and contamination from this source appeared to be remote.

The result of analysis showed that this water was suitable in all respects for domestic use.

Easthills, Dunsyre.—With a view to the procuring of a proper water supply to this farm, the estate agent arranged for a gravitation supply by taking a connection from the Bathgate District Committee's main. At the time this was done the Bathgate District Clerk explained that he could only guarantee an intermittent supply, as the Bathgate reservoir had not been completed and the main was only conveying burn water. This statement has proved correct, and a supply can only be obtained at the farm intermittently, but no doubt when the construction of the reservoir is completed a plentiful supply will be available.

Two samples were procured of this supply, and on analysis both were found to be free from organic pollution, but a sample taken from the supply at the dwelling-house contained a quantity of iron greater than is desirable in a water for domestic purposes.

High Cross, Carluke.—In connection with the proposed additional supply to this croft two samples of water were taken for chemical examination, one being from a well about 100 yards distant and the other from a deep well in the garden. The results of analyses showed that the water from the first-mentioned well was suitable for domestic and dairy purposes, but that the water from the deep well in the garden was unfit for domestic use.

Rainfall.—The following is a statement of the rainfall for the past ten years, as recorded at Coldstream Reservoir, Carluke :—

Year.	Rainfall in Inches.
1920,	38·75
1921,	39·70
1922,	30·15
1923,	38·65
1924,	31·90
1925,	35·00
1926,	39·80
1927,	48·60
1928,	45·80
1929,	38·30
Average for the 10 years,	38·66 inches approximately.

DRAINAGE.

Special Drainage Districts.

There are 15 special drainage areas in the Upper Ward District, and these comprise the following :—

Blackwood and Auchenheath.
Braidwood.
Carluke.
Carnwath.
Carstairs Village.
Coalburn.
Crossford and Hazelbank.
Crosslaw.
Douglas.
Kirkfieldbank.
Law.
Lesmahagow.
Ponfeigh.
Symington.
Thankerton.

No new drainage areas were formed during the year, and no alterations or additions have been made to the existing drainage syetems in any of the special drainage districts.

I might mention, however, that since the formation of Crossford and Hazelbank District and the completion of the sewerage work, all owners of property within the boundaries of the district were served with a notice under the Housing (Scotland) Act, 1925, Section 20 (1) and the Housing, Town Planning, &c. (Scotland) Act, 1919, Section 40 (1), requiring the provision of water-closets and the introduction of water supply with sinks and the making of drain connections to the new sewer. Of 67 notices served, 61 were complied with at the close of the year.

With regard to Hazelbank there are 5 properties on the low side of the road where drainage cannot be discharged into the new sewer, and it is hoped that for the properties referred to a subsidiary sewer will be arranged for to provide equal facilities.

All the septic tanks in the districts were inspected during the year, and where it was deemed necessary arrangements were made to have the sludge removed and the tank cleaned.

SCAVENGING.

Special Districts.

There are now 16 special scavenging areas in the Upper Ward District, being an increase of one over last year, viz., Crossford and Hazelbank. This is a natural sequence to the formation of the special drainage district and the consequent abolition of earth-closets and ashpits.

As no scavenging rate has been levied for the year it was decided that the scavenging arrangements in this district would take effect as from the 15th May, 1930. The Committee have also arranged for the scavenging of Kirkfieldbank district to take effect as from the same date.

The districts are enumerated as under :—

1. Blackwood and Kirkmuirhill (which includes Auchenheath).
2. Carluke.
3. Carnwath.
4. Carstairs Junction.
5. Carstairs Village.
6. Coalburn.
7. Crosslaw.
8. Crossford and Hazelbank.
9. Douglas.
10. Forth and Wilsontown.
11. Haywood
12. Kirkfieldbank.
13. Law.
14. Leadhills.
15. Lesmahagow.
16. Ponfeigh.

LIGHTING.

Special Districts.

There has been no addition during the year to the number of special lighting districts as enumerated in last year's Annual Report.

The districts are as follows:—

1. Carluke.
2. Crosslaw.
3. Douglas.
4. Law.
5. Lesmahagow.

Towards the end of the year a requisition was presented to the District Committee to form Carnwath into a special lighting district.

As there is no gas undertaking in the village the District Clerk communicated with the Hydro Electric Power Company, to ascertain if there was a possibility in the near future of their cable being extended to meet the needs of Carnwath. No definite reply had been received at the close of the year.

Regarding the other districts, a full service has been maintained during the year.

Special Districts.

The special districts for the purposes of water supply, drainage, scavenging, and lighting, are shown in the following table. The rates of assessment (half-proprietor, half-tenant) for the year 1929-30 are also shown. A blank in the assessment column means that no district has been formed for the special purposes indicated.

District.	Water.	Drainage.	Scavenging.	Lighting	Total Assessment.
Blackwood, ...	1/9¼	2/-	4½d.	...	4/1¾
Braidwood, ...	1/5	1/-	...	...	2/5
Carluke, ...	11½d.	8½d.	4½d.	3d.	2/3½
Carnwath, ...	2/7½	10½d.	5d.	...	3/11
Carstairs Junction, ...	2/7½	...	4d.	...	2/11½
Carstairs Village, ...	2/7½	1/2½	6d.	...	4/4
Crawford, ...	1/2	...	...	...	1/2
Crossford and Hazelbank,	2/1¼	1/7½	...	...	3/8¾
Crosslaw, ...	...	2d.	4½d.	5d.	11½d.
Douglas, ...	1/4½	4¾d.	5½d.	3½d.	2/6¼
Forth, ...	1/8	...	5d.	...	2/1

District.	Water.	Drainage.	Scavenging.	Lighting.	Total Assessment.
Haywood, ...	...	...	5d.	...	5d.
Kirkfieldbank, ...	1/4¼	1/9½	*	...	3/1¾
Law, ...	8d.	5½d.	3d.	4d.	1/8½
Leadhills, ...	...	...	6d.	...	6d.
Lesmahagow, ...	1/6¼	1/1	3½d.	2½d.	3/1¼
Coalburn, ...	1/6¼	2/-	3d.	...	3/9¼
Ponfeigh, ...	2/-	9½d.	7½d.	...	3/5
Roberton, ...	1/10	...	...	...	1/10
Symington, ...	1/7	1/-	...	...	2/7
Thankerton, ...	2/11½	2d.	...	...	3/1½

*District formed but not yet in operation.

Nuisances.

63 complaints were received during the year. The subject of complaint in each case was carefully inquired into, and, where necessary, steps were taken to secure the discontinuance or abatement of the nuisance.

In addition to the above, there were many inspections made with a view to the detection of nuisances, and as a result 72 intimations were served from the office under Section 19 of the Public Health (Scotland) Act, 1897.

In many cases the existence of nuisances was brought to the notice of the authors verbally, and remedial measures carried out without further intimation. In no case was it found necessary to have a statutory notice under Section 20 of the Public Health (Scotland) Act, 1897, served in respect of the non-abatement of any nuisance.

A complaint which was received by the Department of Health for Scotland regarding the scavenging arrangements at Oldhill, Auchenheath, was investigated and the following report sent to the Department :—

"Sirs,

"Auchenheath Cleansing.

"With further reference to the Department of Health's letter regarding the scavenging arrangements at Oldhill, Auchenheath, a definite undertaking has been given by the owner that there will be no further recurrence of the nuisance complained of and that the refuse will be removed on the same day as the ashpits are emptied.

"For the information of the Department, there are three separate and distinct blocks of houses:

"1. One of 7 houses, consisting of
4 houses of 3 apartments;
2 houses of 2 apartments;
1 house of 1 apartment
(sub-let);

"2. One of 6 houses,
All of 2 apartments each; and

"3. One of 2 houses,
All of 2 apartments each.

"Regarding the sanitary conveniences, there are two separate blocks, 1 consisting of two ashpits, two privies and coal-cellars, the other consisting of one ashpit, two privies and coal-cellars.

"All these houses are very old and are more or less in a state of disrepair and lack modern conveniences. Owing to the proximity of the colliery, all the houses show evidence of settlement having taken place. These houses are marked for closure, and a representation will be made to the Local Authority in due course. It should be noted that quite a number of houses of the same type have already been closed in this district, all of which are not yet vacated, and it is not considered expedient to hurry the closure of more houses until the former have been emptied."

Schools.

There are 51 public schools in the Upper Ward District. In the course of the year many visits were paid to these in connection with the occurrence of infectious sickness.

Plans were received during the year for the erection of a new primary school, near to the existing Higher-Grade School at Biggar. This new school consists of 6 class-rooms, staff-rooms, and cloak-rooms, with assembly-hall, lavatories, &c., and is designed in a very modern style. At the close of the year this school was in the course of erection.

Workshops.

215 inspections were made to workshops in the Upper Ward District during the year. One notice was received from H.M. Inspector of Factories which related to the need for plastering of walls and limewashing in a tailor's workshop. A notice was served on the owner, and the work was completed to the satisfaction of the Depart-

ment. During inspections want of cleanliness was observed in seven cases, and other nuisances numbered five. Notices were served upon the occupiers of the workshops and the conditions complained of were remedied.

No lists of out-workers were received during the year.

Food and Drugs.

The administration of the Sale of Food and Drugs Acts is undertaken by the County Council, and full information as to the samples taken for analysis and other work done will be found in the County Report.

Rivers Pollution.

The administration of the Rivers Pollution Prevention Act is undertaken by the County Council, and information as to the action taken will be found in the County Report.

Burial Grounds.

No complaint was received during the year regarding any burial ground in the district.

Two interments were carried out at the instance of the Local Authority under Section 69 (1) of the Public Health (Scotland) Act, 1897, at a total cost of £4 19s. It was not found possible, in either case, to recover any part of the expenses incurred.

Accommodation for Seasonal Workers.

60 intimations were received during the year of the intention to accommodate seasonal workers, this number being slightly less than that received last year.

During the month of September a visit of inspection was made by Miss M'Michael, Housing Inspector to the Department of Health for Scotland. It was explained to her that there was a likelihood of huts being erected in the parish of Pettinain so as to provide suitable accommodation for the potato-workers and thus obviate the difficulty some farmers experience in housing the workers at their farm premises.

With this purpose in view the wholesale potato-merchants were granted a site, but so far no arrangements have been made to proceed with the work.

Milk and Dairies (Scotland) Act, 1914.

The Department of Health for Scotland, in their circular, Public Health, No. XI., 1929 (Counties), requests sanitary officers to furnish information in detail of the dairying industry in their respective districts :—

(1) Statement of conditions found and particular points that require remedy.

The registered dairies in the district were inspected during the year as time permitted, and the principal defects found to exist were as follows :—

(*a*) lack of proper inlet and outlet ventilation;
(*b*) inadequate light;
(*c*) rough and unplastered condition of walls;
(*d*) lack of beam-filling of wall-heads;
(*e*) unsuitable trevisses, floors, grips, and troughs.

Since the enforcement of the Dairy By-laws made under Section 8 of the Act, many marked improvements to dairy premises have been effected, and a list of these was given in last year's Annual Report. For the year under review an additional 11 farms were modernised.

As previously stated, the bulk of the farms in this district belong to a few estates, and it has not been found possible to get all the farms brought into conformity with the By-laws other than by a gradual improvement system. It is only fair to say that each estate improves their quota of farms every year.

One real difficulty experienced by this Local Authority is that, according to the Act, the tenant of the farm where repairs are necessary is called upon to execute same and in turn he has power to recover part of the cost from the owner. In many cases the tenant-farmer, especially where the lease is about to expire, is most unwilling to carry out repairs under such conditions.

(2) Particulars of the extent to which (*a*) the cowsheds comply with the structural and sanitary requirements of the Dairy By-laws.

Approximately 65 per cent. of the registered premises in the district conform to the requirements of the By-laws.

(*b*) The extent to which dairymen and their employees conform to the requirements of the By-laws relating to methods of milking, handling, and generally the production of clean milk.

The methods of dairymen and their employees generally in the handling and production of clean milk are very satisfactory. At the instance of the County Medical Officer, my attention was called to several cases where the milk produced was unsatisfactory and a visit of inspection was made to these premises, the methods employed investigated, and, where necessary, advice was given with advantageous results.

(3) Notes of improvements obtained in the condition of dairies, including observations regarding any complaint received or dealt with :—

Parish of Biggar—

Candybank Farm.—Byre reconstructed. New concrete floor and trevisses provided. Walls plastered to wall-head and beam-filled. New inlet and outlet ventilators installed. Additional light. New milkhouse.

Parish of Carluke—

Midtown, Kilncadzow.—New concrete floor and trevisses. Walls plastered to a height of 4 feet and beam-filled. Fireclay troughs installed. New inlet and outlet ventilators provided.

Headsmuir Farm. — New concrete floor and trevisses provided. Walls plastered to height of 4 feet and beam-filled. New inlet ventilators introduced. Stone troughs removed and replaced by fireclay troughs.

Parish of Carmichael—

Crookboat Farm.—Byre reconstructed. New concrete floor and trevisses. Walls plastered to wall-heads and beam-filled. New outlet and inlet ventilators provided. Water-bowls and fireclay troughs introduced.

Parish of Carnwath—

West Forth Farm.—New outlet ventilators provided (Turner patent).

Westmains Farm.—Byre reconstructed. New concrete floor and trevisses. Walls plastered to a height of 4 feet and beam-filled. Fireclay troughs introduced. Introduction of inlet and outlet ventilators (lifting glazed ridge for whole length of byre).

Parish of Carstairs—

Cowford Farm. — New concrete floor and trevisses provided. Walls plastered to a height of 4 feet and beam-filled. New fireclay troughs installed. Inlet and outlet ventilators provided.

Parish of Lesmahagow—

Kypeside Farm.—Old byre abandoned and new byre of modern type provided.

Netherhall Farm.—New milk-house erected.

Parish of Symington—

Eastfield Farm.—Reconstruction of byre. New concrete floor and trevisses. Walls plastered to wall-heads and beam-filled. New inlet and outlet ventilators provided. Fireclay troughs introduced.

Roads Farm.—Byre reconstructed and concrete floor and trevisses provided. Walls plastered to a height of 4 feet and beam-filled. Provision of adequate ventilation.

4. (*a*) The number of registered cowsheds in the district and the total number of cows therein :—

There are 597 registered cowsheds in the district and approximately 12,000 cows therein.

(*b*) Number of cowsheds exempt from registration, and the approximate number of cows in such cowsheds :—

The number of cowsheds exempted from registration totals 41, and the number of cows therein is approximately 80. As already stated in a previous report, these exempted premises relate to places where one or two cows are kept for private use, *e.g.*, crofters, sheep-farmers, and stock-raisers, who keep the animals to provide dairy produce for themselves and their workers.

5. The articles of the Milk and Dairies (Scotland) Order, 1925, have been satisfactorily complied with, and in no case was it found necessary to call the attention of the farmer to the consigning of milk per common carrier in unsealed vessels.

Infectious Diseases.

740 visits of inquiry were paid.

537 notices were issued to headmasters.

315 houses or premises were disinfected.

333 patients were removed to hospital.

For fuller details as to Infectious Disease refer to the Report of the Medical Officer of Health.

WILLIAM PATERSON,

District Sanitary Inspector.

BURGH OF BIGGAR

(Area, 62 Acres)

REPORT

OF THE

MEDICAL OFFICER OF HEALTH AND OF THE

SANITARY INSPECTOR

1929

Report of the Medical Officer of Health.

Statistics.

The **Population,** as estimated to the middle of the year 1929, was 1,538.

The **Births** registered in the Burgh amounted to **18,** and after correction for transfers numbered 18—males, 10; females, 8—giving a birth-rate of **11·6** per 1,000 of the population.

The **Deaths** registered in the Burgh numbered 15, and, after correction for transfers, amounted to **21**—males, 9; females, 12—giving a death-rate of **13·6** per 1,000 of the population.

The following table shows the cause and age periods at death :—

	-1	1-	5-	10-	25-45	45-65	65 & over.	Total.
Diphtheria, -	—	—	—	—	1	—	—	1
Septicæmia, -	—	—	—	1	—	—	—	1
Pulmonary Tuberculosis,	—	—	—	—	1	1	—	2
Malignant Diseases, -	—	—	—	—	—	—	3	3
Cerebral Hæmorrhage, -	—	—	—	—	—	1	1	2
Organic Heart Disease, -	—	—	—	—	—	3	1	4
Other Circulatory Diseases, -	—	—	—	—	—	1	—	1
Diabetes, - -	—	—	—	—	—	1	—	1
Nephritis and Bright's Disease,	—	—	—	—	—	1	—	1
Dis. of Gen.-Urin.-System, - -	—	—	—	—	—	—	1	1
Infantile Convulsions, -	1	—	—	—	—	—	—	1
Other Defined Diseases, -	—	—	1	—	—	—	2	3
Total,	1	—	1	1	2	8	8	21

Prevalence of Infectious Disease.

Notifiable Diseases.—In all, 6 cases of infectious disease were notified. Scarlet fever, 2; diphtheria, 2; chickenpox, 2. Of these, 2 cases of scarlet fever and 2 cases of diphtheria were treated in hospital. The cases treated in hospital were as follows :—District Hospital, Roadmeetings—scarlet fever, 2; diphtheria, 2. Visits of inspection were made to the homes where the cases occurred, and disinfection carried out. All precautions to prevent the spread of the disease were taken.

Tuberculosis.—1 notification was received during the year, this being of the pulmonary type.

Institutional Treatment.—2 cases were admitted during the year to the District Sanatorium, Roadmeetings, being of the pulmonary type, 1 of which also received treatment at Hairmyres Colony.

Domiciliary Treatment.—No cases received domiciliary treatment.

Deaths from Tuberculosis.—2 deaths occurred during the year.

Venereal Diseases.

The Burgh is included in the scheme of the Joint-Committee for the prevention and treatment of venereal diseases.

Maternity and Child Welfare.

The Burgh is included in the Upper Ward Scheme. The District Nurse acts as Nurse Health Visitor for the Burgh and surrounding County District.

Notifications of Birth.—17 notifications were received, and the attendant at birth in each case was a medical practitioner.

Infantile Mortality.—1 death under 1 year was recorded, the infantile mortality rate being 55·5. The certified cause of death was convulsions.

Necessitous Cases.—No cases received assistance during the year.

Hospital Treatment.—There were no admissions to hospital during the year.

Midwives (Scotland) Act, 1915.

Practising Midwives.—There are no practising midwives in the Burgh.

Attendances at Confinements.—17 notifications of birth were received, all being attended by medical practitioners.

Still-births.—There was 1 still-birth notified by the medical practitioner in attendance.

Puerperal Septicæmia.—No cases occurred.

Ophthalmia Neonatorum.—No cases occurred.

Milk and Dairies (Scotland) Act, 1914.

There are 5 retailers only within the Burgh.

General Sanitation.

Water supply, drainage and sewage disposal, scavenging, and other matters are referred to in the report of the Sanitary Inspector.

Workshops.—These are dealt with in the report of the Sanitary Inspector.

Food and Drugs Acts.—The County Council administer these Acts within the Burgh.

The *Public Slaughter-house* is situated outside the Burgh boundary. A record of the animals killed and dues collected is given in the Sanitary Inspector's report.

Report of the Sanitary Inspector.

The **water supply** for the Burgh of Biggar is obtained from King's Beck Burn, situated about seven miles south of the Burgh of Biggar. The Town Council inspected the inlet of the dam in the month of August last, and were satisfied that the supply was adequate for all purposes.

The **drainage and sewage systems** of the Burgh are dealt with in two portions, east and west. The east portion, passing through two settling tanks, is run in open channels over about six acres of land, which is owned by the Town Council. The sewage from the west, after passing through three settling tanks, is allowed to run in open channels, and spread over the most part of ten acres of land, the property of the Town Council. These five settling tanks are cleaned out from time to time as they require it.

Scavenging System.—The ashes and night soil from dry closets are removed on alternate days, that is on Monday, Wednesday, and Friday from the east end of the Burgh, and on Tuesday, Thursday, and Saturday from the west end. On Friday there is a general collection of all rubbish, &c. The whole of the rubbish is deposited in a coup about one mile outside the Burgh. The coup is to the north of the Burgh, and the land is the property of the Town Council.

Nuisances.—A few cases were dealt with during the year. After due notice having been given, they were removed by the owners or tenants, no legal proceedings being necessary.

The **High School** was visited frequently, and both outside and inside are kept in a very clean and healthy condition.

There are 14 properties without water and sink inside the dwelling-house within the Burgh.

Water-closets (common to more than 1 tenant).—There are 17 water-closets for two tenants each, and 9 for three tenants each. There are twelve dry-closets—3 for five tenants each, 2 for four each, 2 for three each, and 5 for one tenant each.

Cowkeepers and Sellers of Milk.—There are no cowkeepers within the Burgh. There is one milk shop, which was inspected frequently, and found to be in a very clean condition.

Pig-styes.—22 visits of inspection were made to pig-styes during the year, and they were found to be clean and in good order.

Common Lodging-houses.—There is none within the Burgh.

Burial Ground.—The burial ground is situated partly within the Burgh and partly in the County area. The grass is frequently cut, and a good supply of water is given by the permission of the Town Council. The Biggar Parish Council has purchased a piece of ground about three acres to the east and adjoining the present burial ground. The ground is all walled in and ready for burials. This new piece of ground is within the County area.

Infectious Disease.—The cases of infectious diseases occurring in the Burgh are noted in the report of the Medical Officer of Health. Inquiries were made as to the source of infection, and frequent visits were made to the houses affected. Thorough disinfection of all houses and bedding, &c., was carried out.

Workshops.—There are 41 workshops in the Burgh. Visits of inspection (49) were made at different intervals. There are no underground workshops in the Burgh. The following is a list of the different workshops and the number of persons employed :—

Workshops.	No. of Shops.	No. of Employees.			
		Males.	Females.	Apprentices.	Total.
Dressmakers and Milliners, -	8	7	14	1	22
Cabinetmakers, - - -	2	4	2	2	8
Bakers, - - - - -	4	12	10	5	27
Blacksmiths, - - - -	2	4	—	1	5
Harnessmakers, - - -	1	3	1	—	4
Engineers, - - - -	4	13	2	1	16
Plumbers, - - - -	2	7	1	5	13
Painters, - - - -	3	18	—	5	23
Joiners, - - - - -	4	11	—	5	16
Jewellers, - - - -	3	4	2	—	6
Tailors, - - - - -	3	8	1	—	9
Shoemakers, - - - -	5	8	4	—	12
Total, - - -	41	99	37	25	161

Slaughter-house.—The slaughter-house is situated outside the Burgh boundary. Visits of inspection were frequent, and the premises were found to be kept in a very clean condition. The record of animals killed during the year and the dues collected are as follows :—

Cattle.	Calves.	Swine.	Sheep.	Total.	Dues Collected.
716	60	392	24,095	25,263	£320

Record of Inspections made :—

	No. of Inspections.
High School,	36
Workshops,	49
Milkshops,	14
Pig-styes,	22
Fish Shops,	18
Slaughter house,	54
	193

WILLIAM SMITH,
Sanitary Inspector.

COUNTY OF LANARK.

MIDDLE WARD.

ANNUAL REPORT for 1929.

STAFF.

PUBLIC HEALTH DEPARTMENT.

MIDDLE WARD DISTRICT.

County and District Medical Officer—

J. Hume Patterson, F.R.F.P.S.(G.), D.P.H.

Tuberculosis Officers and Assistant M.O.H.—

J. M'Callum Lang, M.D., D.P.H.
David R. Hamilton, M.A., M.B., Ch.B., D.P.H.
Geo. W. Murray, M.B., Ch.B., D.P.H.

Assistant M.O. under Child Welfare Scheme—

William Glasgow, M.B., Ch.B.
Douglas Brown, M.B., Ch.B., D.P.H.

District Sanitary Inspector—

John Millar.

Inspector of Buildings—

William Martin.

District Meat Inspector, etc.—

Alex. Cameron.

Local Sanitary Inspectors,	9
Nurse Health Visitors,	17
Nurse Sanitary Inspectors,	12
Superintendents of Slaughter-Houses,	7
Assistant Buildings Inspectors,	2

STAFF.

PUBLIC HEALTH HOSPITALS.

MIDDLE WARD DISTRICT.

Medical Officer—

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

County Hospital, Motherwell, (*232 beds*)	Dr. JOHN REID, Resident Physician-Superintendent.
	Dr. JOHN S. DRUMMOND, Resident Assistant Physician.
	Dr. DAVID M. HART, Resident Assistant Physician.
	Miss M. THOMSON, Matron.
Lightburn Joint-Hospital, Shettleston, (*60* beds*)	Dr. H. M. DAVIE, Resident Physician-Superintendent.
	Miss E. TOWNSEND, Matron.
County Orthopædic Hospital, Stonehouse, (*60 beds*)	Dr. ALEXANDER SMITH, Resident Physician-Superintendent.
	Dr. A. H. M'LEAN, Visiting Physician.
	Miss A. SHORE, Matron.
County Sanatorium, Shotts, (*52 beds*)	Dr. D. R. HAMILTON, Physician-Superintendent.
	Dr. J. M'MILLAN, Visiting Physician.
	Miss ISA KEIR, Matron.
County Sanatorium, Uppertown, (*46 beds*)	Dr. J. M'CALLUM LANG, Physician-Superintendent.
	Dr. RICHARD RAE, Visiting Physician.
	Miss H. J. MORE, Matron.
Hairmyres Colony, (*232 beds*)	Dr. JAMES JOHNSTONE, Resident Physician-Superintendent.
	Dr. ALEX. G. THOMSON, Resident Assistant Physician.
	Miss M. LAIRD, Matron.
County Maternity Hospital, Bellshill, (*48 beds*)	Dr. H. J. THOMSON, Physician-Superintendent.
	Miss A. CRAWFORD, Matron.
County Convalescent Home, Calderbank House, (*30 beds*)	Dr. WILLIAM GLASGOW, Physician-Superintendent.
	Mrs. J. M'DOUGALL, Matron.
Blantyre Hospital, (*10 beds*)	Dr. DOUGLAS BROWN, Visiting Physician.
	Miss JESSIE KEIR, Matron.
Dalserf Hospital, (*10 beds*)	Dr. ALEXANDER SMITH, Visiting Physician.
	Miss MARY LAMONT, Matron.

* 15 beds owned by the Middle Ward District Committee.

COUNTY OF LANARK.

DISTRICT OF THE MIDDLE WARD.

(Area, 184.683 acres.)

Report by the Medical Officer of Health

FOR THE YEAR 1929.

I.—Vital Statistics.

The **Area** of the District was unchanged, and at the close of the year was **184,683** acres.

The acreage and population of each parish is stated in Table B.

The density of population was 1·29 persons to the acre.

The **population** at the middle of the year has been estimated, from local sources, at **239,000,** the same as last year.

The number of inhabited houses in the District, according to the Valuation Roll, was **45,078,** a decrease of 10, compared with the year 1928. The number of uninhabited houses, according to the Roll, was 764, compared with 711 the previous year.

Statistical Tables.—Table A shows the birth-rate and death-rate per thousand of the population, and the infantile deaths per thousand births. It also shows the birth and death rates and infantile deaths for each year since 1921, and the average rates for the decennial periods between 1891 and 1920.

Table B shows the acreage, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause, and Table C shows the deaths classified according to cause and age periods.

TABLE B.—MIDDLE WARD—Year 1929.—Population, Acreage, Births, and Deaths* in each Registration District, with Deaths classified according to cause.

| REGISTRATION DISTRICTS | POPULATION: Census, 1921. | POPULATION: Estimated to middle of 1929. | ACREAGE | BIRTHS. | DEATHS: Certified | DEATHS: Uncertified | Typhoid Fever. | Smallpox. | Measles. | Scarlet Fever. | Whooping Cough. | Diphtheria. | Influenza. | Cerebro-Spinal Fever. | Erysipelas. | Encephalitis Lethargica. | Tetanus. | Dysentery. | Acute Infective Jaundice. | Mumps. | Acute Polio-myelitis. | Pulmonary Tuberculosis. | Meningeal Tuberculosis. | Abdominal Tuberculosis. | Other Tuberculous Diseases. | Septicæmia and Pyæmia. | Rheumatic Fever. | Malignant Disease. | Meningitis (Simple). | Cerebral Hæmorrhage. | Other Nervous Diseases. | Organic Heart Disease. | Other Circulatory Diseases. | Bronchitis. | Pneumonia (All Forms). | Other Respiratory Diseases. | Diabetes. | Peritonitis Abscess. | Diseases of Digestive Canal. | Appendicitis, Typhlitis. | Liver Diseases (not Malignant). | Other Digestive Diseases. | Nephritis, Bright's Disease. | Dis. of Genito-Urinary Organs. | Dis. of Female Genital Organs. | Puerperal Sepsis. | Dis. and Acc. of Pregnancy &c. | Congenital Malformations. | Congenital Heart Diseases. | Congenital Malformation. | Infantile Convulsions. | Bronchitis (under 2 years). | Premature Births. | Injury at Birth. | Atrophy, D. and M. | Atelectasis. | Suffocation, Overlying. | Rickets. | Other Dis. of early infancy | Syphilis. | Violence. | Suicide. | Other Defined Diseases. | Ill-defined Diseases. | Total. |
|---|---|---

TABLE C.—MIDDLE WARD.—Year 1929.—Deaths classified according to cause and age periods, and corrected for Institutions, &c.

Population, 239,000; Acreage, 184,683; Registered Births, {Legitimate, M., 2,382; F., 2,296; Illegitimate, M., 166; F., 150; Total, 4,994. Deaths under 1 year, {Legitimate, 410. Illegitimate, 16.

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,	2,569	347	192	2,724	122	27	13	17	179	51	73	61	61	425	255	54	47	126	127	194	245	370	477	404	11·3974	517
{Uncertified,	4	1	...	5	1	...	...	...	1	...	...	...	...	1	...	...	1	...	1	1	...	...	...	1	·0209	...
Typhoid Fever,	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	·0084	1
Smallpox,	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Measles,	4	...	...	4	...	...	...	...	...	...	...	1	1	2	2	...	...	...	...	...	...	...	...	...	·0167	1
Scarlet Fever,	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	·0084	2
Whooping-Cough,	101	1	1	101	...	...	...	...	...	9	4	8	14	35	63	2	1	...	...	...	...	...	...	...	·4226	12
Diphtheria,	17	3	...	20	...	...	...	...	...	1	...	1	...	2	10	5	1	1	...	...	1	...	...	...	·0837	12
Influenza,	166	3	1	168	...	...	...	...	...	1	3	4	2	10	18	2	1	5	5	18	17	25	32	35	·7030	13
Cerebro-Spinal Fever,	5	1	1	5	...	...	...	...	...	1	1	...	1	3	...	1	...	1	...	...	...	...	...	...	·0209	4
Erysipelas,	10	...	2	8	...	...	...	...	...	...	1	...	1	2	...	...	...	...	1	...	4	...	...	1	·0334	8
Encephalitis Lethargica,	8	...	1	7	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	1	3	...	1	·0293	2
Tetanus,	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	·0084	2
Dysentery,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Infective Jaundice,	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mumps,	2	...	...	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	·0084	...
Acute Anterior Poliomyelitis,	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	·0042	..
Pulmonary Tuberculosis,	136	2	13	125	...	...	...	...	...	...	...	...	...	...	...	1	6	34	35	20	15	8	5	1	·5230	53
Meningeal Tuberculosis,	22	2	2	22	...	...	...	...	...	...	...	1	1	2	10	5	2	1	1	1	...	...	...	...	·0920	10
Abdominal Tuberculosis,	18	2	...	20	...	...	...	...	...	...	...	...	1	1	10	3	2	1	...	2	1	...	...	...	·0837	4
Other Tuberculosis,	22	2	2	22	...	...	...	...	...	...	...	...	...	...	2	...	1	5	3	4	3	2	2	...	·0920	9
Septicæmia and Pyæmia,	2	9	...	11	...	...	..	...	...	...	...	...	...	...	...	1	...	2	3	1	1	2	1	...	·0460	1
Rheumatic Fever,	9	...	1	8	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	2	...	1	1	...	·0334	1
Malignant Diseases,	172	52	13	211	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	19	31	68	62	26	·8829	19
Meningitis (Simple),	17	1	...	18	...	...	...	...	...	...	3	2	5	10	6	...	1	1	...	...	...	...	...	...	·0753	1
Cerebral Hæmorrhage,	163	5	7	161	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	6	12	34	56	52	·6736	17
Other Nervous Diseases,	67	15	21	61	...	...	...	1	1	...	...	....	1	2	1	3	4	7	6	2	9	12	9	6	·2552	33
Organic Heart Diseases,	308	24	31	301	...	...	...	...	...	...	...	...	...	...	...	...	5	8	11	22	41	69	95	50	1·2594	53
Other Circulatory Diseases,	69	12	5	76	1	...	...	...	1	...	...	...	...	1	...	...	1	...	1	1	7	17	22	26	·3180	9
Bronchitis,	158	7	7	158	...	...	2	1	3	6	9	7	5	30	11	1	1	1	..	8	5	25	43	33	·6611	14
Pneumonia (All Forms),	284	17	16	285	1	...	2	1	4	4	18	16	18	60	71	6	5	12	19	21	29	20	23	19	1·1924	78
Other Respiratory Diseases,	24	1	...	25	2	...	...	...	2	...	2	3	...	7	2	...	1	1	...	4	3	3	3	1	·1046	3
Diabetes,	20	9	...	29	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	5	5	5	9	1	·1213	3
Pernicious Anæmia,	10	2	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	4	4	1	·0502	...
Diseases of Ductless Glands,	10	5	...	15	...	...	...	...	...	...	...	...	...	...	...	1	1	1	3	2	4	1	2	...	·0627	...
Appendicitis, Typhlitis,	1	14	...	15	...	...	...	...	...	...	...	...	...	...	...	...	3	5	2	1	1	2	1	...	·0627	1
Liver Diseases (not malignant),	11	12	2	21	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	3	5	3	6	2	·0878	2
Other Digestive Diseases,	44	44	4	84	...	...	...	...	...	...	1	...	1	2	2	5	...	3	6	10	13	16	13	14	·3515	8
Nephritis, Bright's Disease,	62	10	4	68	...	...	...	...	...	...	...	...	...	...	2	1	3	3	1	10	9	16	18	5	·2845	8
Dis. of Genito-Urinary System,	14	5	1	18	1	...	...	...	1	...	...	...	...	1	...	...	...	1	...	1	...	3	8	4	·0753	1
Dis. of Female Genital Organs,	1	5	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	2	...	...	...	·0251	...
Puerperal Sepsis,	24	...	10	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	9	3	1	...	...	·0586	23
Diseases and Accidents of Pregnancy, &c.,	14	...	3	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	7	...	...	...	...	·0460	10
Congenital Hydrocephalus,	2	1	...	3	1	...	...	...	1	...	...	1	...	2	1	...	...	...	...	...	...	...	...	...	·0125	...
Congenital Heart Disease,	8	...	1	7	4	1	...	...	5	1	...	...	...	6	1	...	...	...	...	...	...	...	...	...	·0293	2
Congenital Malformations,	22	2	...	24	6	2	2	2	12	6	4	2	...	24	...	...	...	...	...	...	...	...	...	...	·1004	...
Infantile Convulsions,	23	...	...	23	6	1	...	1	8	3	4	1	1	17	6	...	...	...	...	...	...	...	...	...	·0962	3
Diarrhœa (under 2 years),	42	1	5	38	...	1	..	...	1	4	10	10	5	30	8	...	...	...	...	...	...	...	...	...	·1590	12
Premature Birth,	81	4	4	81	59	6	1	5	71	9	1	...	...	81	...	...	...	...	...	...	...	...	...	...	·3389	21
Injury at Birth,	7	3	...	10	9	1	...	...	10	...	...	...	...	10	...	...	...	...	...	...	...	..	...	...	·0418	2
Atrophy, D. and M.,	77	1	5	73	23	15	6	6	50	5	11	2	4	72	1	...	...	...	...	...	...	...	...	...	·3054	23
Atelectasis,	5	...	...	5	5	...	...	...	5	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	·0209	...
Suffocation, Overlying,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets,	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis. of Early Infancy,	1	...	...	1	1	...	...	...	1	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	·0042	...
Syphilis,	3	...	1	2	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	·0042	...
Violence,	62	50	9	103	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	·0084	2
Suicide,	9	3	1	11	...	...	...	...	...	...	...	...	...	...	17	9	4	16	11	15	9	13	4	5	·4309	...
Other Defined Diseases,	176	15	13	178	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	2	4	1	...	·0460	...
Ill-defined Diseases,	54	1	5	50	4	...	...	...	4	...	1	1	...	6	4	1	1	1	...	1	6	6	16	8	·2092	1
Total,	2,573	348	192	2,729	123	27	13	17	180	51	73	61	61	426	255	54	48	126	128	195	245	370	477	405	11·4184	517

The **Births** registered numbered **4,994** — males, 2,548; females, 2,446 — 316, or 6·3 per cent., were illegitimate. The birth-rate per 1,000 of the population was 20·9, which is the lowest rate ever recorded in the Middle Ward District. The lowest rate previously recorded viz., 22·5, occurred in 1928, and reference to Table A shows that for many years the rate has undergone an almost unbroken fall.

Deaths during 1929 numbered **2,729,** as compared with 2,614 in 1928, the respective death-rates for the two years being 11·4 and 10·9 per 1,000. The deaths from measles fell from 83 to 4, but the deaths from whooping-cough increased from 85 to 111. Deaths from respiratory diseases increased from 420 to 636, pneumonia being responsible for 80 deaths more than in the previous year, bronchitis 40, and influenza 101.

The deaths of infants under one year numbered 426, which is equivalent to 85·3 deaths per 1,000 births, as compared with 91·2 recorded last year. 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 2,265, 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.	Infants under 1 Year. Death-rate.
1891 to 1900	**62,323**	**39·1**	**29,080**	**18·1**	**8,098**	**129·9**
1901 to 1910	**74,121**	**38·9**	**31,188**	**16·3**	**9,212**	**124·2**
1911 to 1920	**68,201**	**32·5**	**30,005**	**14·3**	**7,547**	**119·4**
1921	7,023	32·1	2,660	12·1	631	89·9
1922	6,364	28·3	2,936	13·0	650	102·1
1923	6,218	26·7	2,620	11·2	481	77·3
1924	6,251	26·3	3,023	12·7	620	99·2
1925	6,176	26·0	2,706	11·4	577	93·4
1926	5,928	25·0	2,618	11·0	489	82·4
1927	5,640	23·9	2,649	11·2	493	87·4
1928	5,382	22·5	2,614	10·9	491	91·2
1929	**4,994**	**20·9**	**2,729**	**11·4**	**426**	**85·3**

PUBLIC INSTITUTIONS SITUATED WITHIN THE DISTRICT WHERE SOME PERSONS NOT BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS ARE EXCLUDED.

Name of Institution	Parish where situated	Population. Police Census, 1929	Deaths. Total during 1929	Deaths. Allocated to the Middle Ward District
Kirklands Asylum, -	Bothwell,	308	19	8
Hartwood Asylum, -	Shotts,	1,470	112	44
Airbles House, - -	Dalziel,	126	6	2
Thrashbush Home. - -	New Monkland,	132	22	3
Muter M'Gill Home, Nerston, - - -	East Kilbride,	60	...	...
Omoa House, - - -	Shotts,	217	45	34
Annieslea Home, Nerston, - - -	East Kilbride,	71	...	...
County Hospital, Motherwell, -	Dalziel,	295	168	152
Auxiliary Infirmary, Philipshill, - -	East Kilbride,	88	...	...
County Orthopædic Hospital, Stonehouse, - -	Stonehouse,	116	7	6
County Sanatorium, Shotts, - - -	Shotts,	67	22	22
County Sanatorium, Uppertown, - -	New Monkland,	68	18	17
Hairmyres Colony, - -	East Kilbride,	360	1	...
County Maternity Hospital, Bellshill, - - -	Bothwell,	99	45	36
County Convalescent Home, Calderbank House, -	Old Monkland,	55	20	19
County Hospital, Blantyre,	Blantyre,	21	3	2
County Hospital, Dalserf,	Dalserf,	15	...	...
Craighead House, Blantyre, - - -	Blantyre,	8	...	...
Blantyre Cottage Hospital, - - -	Blantyre,	...	2	2
St. Vincent Home for Deaf and Blind Children, -	Old Monkland.	207	...	...
Elmwood Convent, -	Bothwell,	37	1	1
Collisdene Nursing Home. Strathaven, - -	Avondale,	31	7	5
Children's Home, Mount Vernon, - - -	Old Monkland,	33	...	...
Homœopathic Hospital, Mount Vernon, - -	Old Monkland,	35	19	2
Total, -		3,919	517	355

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

General Hospitals.		*Poor Law Institutions.*	
Glasgow Royal Infirmary,	163	41 Bothwell Road, Hamilton,	13
Glasgow Western Infirmary,	25	69 Hospital Street, Coatbridge,	5
Glasgow Victoria Infirmary,	9	Others,	4
Edinburgh Royal Infirmary,	6		
Glasgow Sick Children's Hospital,	22		
Infectious Diseases Hospitals.			
Lightburn Hospital,	8	All other Institutions,	54
Ruchill Hospital, &c.,	4		
	237		76

TOTAL, 313

DEATHS IN RELATION TO AGE AND CAUSE.—Table C shows the deaths classified according to age and cause. The deaths are here arranged in recognised age-periods, and the percentage proportion of deaths at each age-period is given :—

Infant period,	under 1 year,	426	deaths or 15·6	per cent.
Under school age,	1-5 years,	255	,, 9·3	,,
School age,	5-15 ,,	102	,, 3·7	,,
Adolescent,	15-25 ,,	126	,, 4·6	,,
Early mature period,	25-45 ,,	323	,, 11·8	,,
Late ,, ,,	45-65 ,,	615	,, 22·5	,,
Post ,, ,,	65 years and upwards,	882	,, 32·3	,,

Reference to Table A shows that the infantile mortality rate fell from 91·2 in 1928 to 85·3 in 1929, but that the general death-rate showed an increase from 10·9 to 11·4 per thousand of the population in respect of those two years. If, however, the above table be compared with that for 1928, it will be found that, while the percentage proportion of deaths from infancy to adolescence decreased, the percentage deaths at all the maturity periods increased appreciably.

Infectious Diseases. — The number of deaths due to infectious diseases which are compulsorily notifiable was 535, made up thus :—

Diphtheria, - - -	20	Tuberculosis (all other forms), - - -	64
Erysipelas, - - -	8	Pneumonia, - -	285
Scarlet Fever, - -	2	Tetanus, - - -	2
Typhoid Fever, - -	2	Acute Anterior Poliomyelitis, - -	1
Puerperal Sepsis, - -	14	Encephalitis Lethargica,	7
Cerebro-spinal Fever,	5		
Pulmonary Tuberculosis,	125		

The deaths from infectious diseases not compulsorily notified amounted to 145 :—Measles, 4 ; whooping-cough, 101 ; diarrhœa, 38 ; mumps, 2. In 50 per cent. of the whooping-cough deaths, the disease was complicated with pneumonia, and in 16 per cent. with bronchitis. The prevalence of the various infectious diseases is further referred to in the second portion of the Report.

Respiratory Diseases.—The deaths during the year numbered 636, and the following statistics show the deaths and death-rates of the various forms for the past five years :—

	Pneumonia.		Bronchitis.		Influenza.		Other Respiratory Diseases.		
Year.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Total Deaths.
1925	220	0·92	140	0·59	55	0·23	29	0·12	444
1926	206	0·86	142	0·59	88	0·37	35	0·14	471
1927	243	1·03	141	0·59	95	0·40	32	0·13	511
1928	205	0·86	118	0·49	67	0·28	30	0·13	420
1929	285	1·19	158	0·66	168	0·70	25	0·10	636

With regard to the 168 deaths from influenza, the disease was complicated with other conditions in 154 of the cases, as follows :— Tuberculosis, 2 ; bronchitis, 25 ; pneumonia, 82 ; other respiratory diseases, 7 ; child-birth, 1 ; other complications, 37.

Malignant Diseases. — The deaths falling under this heading numbered 211, as compared with 237 in the previous year. In 166 cases carcinoma was stated as the cause of death, in 8 cases sarcoma, in 5 cases epithelioma, in 1 case endothelioma, and in 31 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 Cav.	Pharynx, Stomach,	Peritoneu	Female Gen. Organs.	Breast.	Skin.	Throat.	Lungs.	Kidney.	Bladder.	Prostate.	Penis.	Thyroid Gl.	Parotid Gl.	Mediastin.	Femur.	Pelvis.	Spine.	• Others.	Total.	
–1 Year	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1-5 Years	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
5-10 ,,	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10-15 ,,	M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
15-20 ,,	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	
	F.	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
20-25 ,,	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
25-30 ,,	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
30 35 ,,	M.	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
	F.	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
35-40 ,,	M.	1	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	3	
	F.	—	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	
40-45 ,,	M.	—	3	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	7	
	F.	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	4	
45-50 ,,	M.	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	
	F.	—	3	1	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	
50-55 ,,	M.	1	6	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	
	F.	—	1	1	2	4	—	—	—	—	—	—	—	1	—	—	1	—	—	1	11	
55-60 ,,	M.	2	7	6	—	—	—	—	1	—	1	—	—	—	—	1	—	—	—	—	18	
	F.	—	5	4	4	3	—	—	—	—	—	—	—	1	—	—	—	—	—	2	19	
60-65 ,,	M.	—	10	4	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	16	
	F.	—	8	3	—	3	—	—	—	—	—	—	—	1	—	—	—	—	—	—	15	
65-70 ,,	M.	1	5	10	—	—	—	—	1	—	—	6	1	—	—	—	—	—	—	—	24	
	F.	—	1	3	2	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	8	
70-75 ,,	M.	1	7	4	—	—	1	1	—	—	—	2	—	—	—	—	—	—	—	—	16	
	F.	—	6	6	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	14	
75 years and over,	M.	2	3	3	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	9	
	F.	—	10	3	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	
All Ages, ..	M.	9	44	33	—	—	1	1	4	—	1	9	1	—	—	1	1	—	—	2	107	} 211
	F.	—	36	24	13	19	1	—	3	—	—	—	—	3	—	—	1	—	1	3	104	

• Bone, 1; Axilla, 1; Eye, 1; Larynx, 1; Shoulder, 1.

Diabetes.

Deaths from diabetes numbered 29.

The following table classifies the deaths since 1920, according to age and sex groups :—

Age Period		1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
1 – 5	M.	—	1	—	—	—	—	—	—	—	—
	F.	—	1	—	—	—	—	—	—	—	—
5 – 10	M.	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—
10 – 15	M.	—	—	—	—	—	1	—	—	—	1
	F.	—	—	—	—	—	1	—	—	—	—
15 – 25	M.	1	—	—	2	1	—	3	—	1	2
	F.	—	1	—	1	1	1	1	1	--	1
25 – 35	M.	—	1	—	3	—	2	—	1	—	—
	F.	1	3	2	—	—	—	1	1	—	—
35 – 45	M.	1	1	—	1	2	—	—	2	1	1
	F.	—	—	1	—	—	2	—	1	1	4
45 – 55	M.	4	—	—	2	—	—	1	—	1	2
	F.	1	1	3	1	2	2	3	3	1	3
55 – 65	M.	1	3	1	2	1	—	3	2	1	2
	F.	6	2	3	2	1	6	8	11	9	3
65 – 75	M.	1	1	3	2	—	2	—	1	1	1
	F.	2	1	1	6	5	5	4	6	3	8
75 +	M.	1	—	—	1	—	1	1	—	1	—
	F.	1	—	1	—	1	—	1	2	—	1
Total,	M.	9	7	4	13	4	6	8	6	6	9
	F.	11	9	11	10	10	17	18	25	14	20
Grand Total,		20	16	15	23	14	23	26	31	20	29

In one case, which died during the year, insulin was being supplied by the Local Authority, but, so far as the other fatal cases are concerned, it is not known whether this form of treatment was being carried out by private arrangement or with assistance from the Insurance Committee or the Parish Council.

Supply of Insulin.—Insured persons and those in receipt of Poor Law medical relief are entitled to a supply of insulin from the Insurance Committees and Parish Councils, whilst those who do not come within the purview of these two Authorities are dealt with by the District Committee, under the Public Health (Amendment) Act, 1925.

The Middle Ward 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 particulars relate to cases supplied with insulin during the year :—

Sex	Age	Date of first supply	Daily dose	Total amount supplied during 1929	Result of Insulin treatment
F.	62	15-2-26	10 units.	2,000 units.	I.S.Q. Fit for ordinary duties.
F.	50	30-4-26	30/20 ,,	8,000 ,,	Much improved.
M.	11	16-2-28	90 ,,	6,400 ,,	Died. "Diabetes."
F.	49	7-3-28	10 ,,	2,800 ,,	Improved. Ceased insulin treatment.
F.	26	13-3-28	30 ,,	2,500 ,,	Fit for ordinary duties.
F.	55	3-5-28	40 ,,	2,800 ,,	I.S.Q. Fit.
F.	70	24-11-28	20 ,,	1,600 ,,	Improved. Fit.
M.	11	7-12-28	10 ,,	900 ,,	Improved. Fit for School.
F.	38	18-3-29	40 ,,	1,100 ,,	Sugar-free. Ceased insulin treatment.
M.	50	13-8-29	30 ,,	4,500 ,,	Improved. Not fit for work.
F.	53	12-9-29	40 ,,	3,300 ,,	I.S.Q.
F.	59	18-9-29	20 ,,	900 ,,	No improvement. Neuritis.
F.	56	20-9-29	10 ,,	900 ,,	Treatment newly instituted.
F.	58	23-10-29	10 ,,	700 ,,	Improved. Fit.
F.	59	25-10-29	20 ,,	1,500 ,,	Improved. Not fit.
F.	57	23-11-29	30/20 ,,	500 ,,	Improved. Fit.
F.	32	9-12-29	40 ,,	300 ,,	Improved. Not fit.

II.—Prevalence of Infectious Disease.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Department of Health for Scotland; and Group II, diseases not compulsorily notifiable. The diseases included in these groups are as follows:—

Group I.

(a)	(b)	(c)
Smallpox.	*August, 1906.*	*1st August, 1912.*
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	*24th October, 1912.*	*1st July, 1914.*
Typhus Fever.	Tetanus.	All forms of Tuberculosis.
Typhoid Fever.	Anthrax.	*1st November, 1918.*
Puerperal Fever.	Glanders.	Ophthalmia Neonatorum.
Erysipelas.	Actinomycosis.	*1st August, 1919, and 21st November, 1927.*
		Malaria.
		Dysentery.
		Acute Primary Pneumonia.
		Acute Influenzal-Pneumonia.
		21st December, 1925.
		Infective Jaundice.
		Infantile Paralysis.
		Polio-Encephalitis.
		Encephalitis Lethargica.
		25th March, 1927.
		*Chickenpox.
		1st October, 1929.
		Puerperal Pyrexia.

Group II.

Measles.	Ringworm.	German Measles.
Mumps.	Scabies.	Whooping-Cough.

* Now made compulsorily notifiable until 31st Decr., 1930, vide the Public Health (Chickenpox) Amendment Regulations, dated 15th Novr., 1928.

TABLE E—NUMBER OF CASES OF INFECTIOUS SICKNESS RECOGNISED IN EACH PARISH DURING 1929.

PARISH.	Smallpox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Typhoid Fever.	Continued Fever.	Puerperal Fever.	Puerperal Pyrexia.	Cerebro-Spinal Fever.	Infantile Paralysis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Malaria.	Dysentery.	Primary Pneumonia.	Influenzal-Pneumonia.	Tetanus.	Encephalitis Lethargica.	Acute Infective Jaundice.	Chickenpox.	Total.
1. Avondale,	—	6	2	50	—	1	1	6	—	1	1	—	13	4	—	—	22	3	—	—	—	36	146
2. East Kilbride,	—	21	2	9	—	—	—	2	—	—	—	1	8	8	—	—	10	4	—	—	—	1	66
3. Glasford,	—	10	3	2	—	—	—	—	—	—	—	—	2	1	—	—	2	2	—	—	—	6	28
4. Stonehouse,	—	9	—	9	—	—	—	1	1	—	—	—	5	3	—	—	6	1	—	—	—	14	49
First Division,	—	46	7	70	—	1	1	9	1	1	1	1	28	16	—	—	40	10	—	—	—	57	289
5. Blantyre,	—	42	21	44	—	1	—	10	—	7	—	1	16	31	1	—	109	11	—	3	—	97	394
6. Bothwell,	—	320	69	304	—	9	—	33	1	5	2	18	114	124	3	—	546	35	1	3	—	246	1,833
7. Cambuslang,	—	25	29	135	—	—	—	5	1	1	—	11	29	34	—	1	192	49	—	1	—	157	670
8. Cambusnethan,	—	35	32	75	—	—	—	9	—	1	1	11	29	18	—	1	59	21	—	1	—	140	433
9. Dalserf,	—	50	7	83	—	1	1	2	1	—	—	—	19	21	—	—	28	4	—	1	—	29	247
10. Dalziel,	—	1	—	8	—	—	—	—	—	—	—	1	3	4	—	—	4	1	—	—	—	7	29
11. Hamilton,	—	20	4	18	—	1	—	4	—	1	—	1	10	10	—	—	16	4	—	1	—	20	110
Second Division,	—	493	162	667	—	12	1	63	3	15	3	43	220	242	4	2	954	125	1	10	—	696	3,716
12. New Monkland,	—	63	7	57	—	2	1	11	—	—	—	1	15	15	—	—	14	5	—	—	—	46	237
13. Old Monkland,	—	21	20	60	—	—	—	4	3	1	1	2	28	23	—	—	87	31	1	1	—	51	334
14. Shotts,	—	89	19	58	—	3	—	7	—	2	2	26	22	27	—	—	85	22	—	3	—	166	531
Third Division,	—	173	46	175	—	5	1	22	3	3	3	29	65	65	—	—	186	58	1	4	—	263	1,102
Middle Ward,	—	712	215	912	—	18	3	94	7	19	7	73	313	323	4	2	1,180	193	2	14	—	1,016	5,107
Cases notified in Institutions of persons belonging to other Areas,	—	—	3	—	—	—	—	4	—	—	—	—	8	1	—	—	8	—	—	—	—	4	28

The Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1929, which became operative as from 1st October, require the compulsory notification as Puerperal Pyrexia of any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease (Notification) Act, 1889) occurring in a woman within 21 days after childbirth or miscarriage in which a temperature of 100·4°F. (38°C.) or more has been sustained during a period of 24 hours, or has recurred during that period.

Smallpox, Typhus Fever, Acute Infective Jaundice, Anthrax, Glanders, Actinomycosis and Polio Encephalitis.

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

Diphtheria and Membranous Croup.

Table D1 shows the prevalence of diphtheria during the past five years, and during each quinquennial period from 1891 to 1925.

TABLE D1.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	210	74	35·1	1·39	4·9
1896-1900 ,,	144	35	24·3	0·85	2·0
1901-05 ,,	151	34	22·3	0·80	1·8
1906-10 ,,	383	41	10·8	1·93	2·0
1911-15 ,,	336	32	9·9	1·63	1·5
1916-20 ,,	304	29	10·0	1·42	1·3
1921-25 ,,	303	29	9·6	1·31	1·3
1925	267	15	5·6	1·12	0·6
1926	355	16	4·5	1·49	0·7
1927	463	10	2·1	1·96	0·4
1928	627	28	4·4	2·62	1·1
1929	712	20	2·8	2·97	0·8

The number of cases of diphtheria is greater than ever previously recorded.

After admission to hospital the diagnosis was revised in 244 cases, as follows:—Positive swab, 129; sore throat, 79; scarlet fever, 13; naso-pharyngitis, 2; measles, 1; laryngitis, 2; tonsillitis, 2; rubella, 1; malnutrition, 2; rhinitis, 2; whooping-cough, 2; adenitis, 1;

bronchitis, 3; gluteal abscess, 1; tonsillar abscess, 2; impetigo, 1; chronic nephritis, 1. In addition, in 63 cases no evidence of diphtheria could be detected; in 3 cases the diphtheria was complicated with scarlet fever, in 1 with whooping-cough, and a third with chickenpox. In still another case the diagnosis was doubtful.

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

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Cases,	53	34	56	61	68	69	56	47	53	75	66	74	712
Deaths,	5	—	4	3	—	2	—	2	1	—	2	1	20

Ages,	-1	1-5	5-15	15-25	25-45	45-65	65+	All ages.
Cases,	15	178	368	93	51	7	—	712
Deaths,	2	10	6	1	—	1	—	20

The number of cases removed to hospital was 661, or 92·8 per cent. of the total.

Antitoxin was administered by private practitioners to 29 cases prior to their admission to hospital, and to 15 cases which were treated at home. 36 cases which were not removed to hospital received no serum, nor was it given to 632 cases before their admission.

During the year 284,000 units of antitoxin were supplied through police stations to medical practitioners. In addition to this practitioners were supplied with 424,000 direct from the Public Health Department, or through local dispensaries.

Contact Carriers.—Systematic swabbing of household contacts was carried out as in former years, and 132 carriers were discovered. A modified form of isolation was enforced and carriers were kept under observation until two successive negative results were obtained. In the absence of signs or symptoms of recent sore throat, they were not removed to hospital unless some pathological condition of the throat or nose suggested that they might become chronic carriers, in which event they were admitted to hospital for suitable treatment and operation if necessary. 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 swab and the second negative result in 116 cases :—

0-7	8-14	15-21	22-28	29 35	36-42	43-49	Over 49
39	39	17	5	7	—	6	3

In 10 cases a persistently positive swab was tested for virulence and the organism found to be avirulent.

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

Scarlet Fever.

Table D2 shows the prevalence of scarlet fever during the past five years, and during each quinquennial period from 1891 to 1925.

TABLE D2.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	1,116	34	3·06	7·42	2·2
1896-1900 ,,	1,035	41	3·98	6·13	2·4
1901-05 ,,	645	25	3·90	3·44	1·3
1906-10 ,,	927	24	2·54	4·67	1·1
1911-15 ,,	1,179	29	2·43	5·70	1·3
1916-20 ,,	929	21	2·61	4·36	0·9
1921-25 ,,	1,168	22	1·9	5·07	0·9
1925	1,128	20	1·77	4·76	0·8
1926	877	11	1·25	3·70	0·4
1927	545	5	0·92	2·31	0·2
1928	839	7	0·83	3·51	0·3
1929	912	2	0·2	3·81	0·08

The number of cases notified still shows an incidence considerably lower than that for the preceding quinquennial period, and the mortality rate is the lowest hitherto recorded. The notifications received each month averaged approximately 75, the actual number being below the average for the last seven months of the year and for the month of April.

The predominating type of disease was mild, and many cases were so mild as to at first escape recognition. 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 823, or 90·2 per cent. of all the cases notified.

The age incidence of cases and deaths for the whole district was :—

Ages,	-1	1-5	5-15	15-25	25-45	45-65	65+	All ages.
Cases, -	4	235	536	96	35	5	1	912
Deaths,	—	—	—	2	—	—	—	2

"Return" Cases.—12 of the cases discharged from hospital during the year were apparently still capable of carrying infection, and may have given rise to 13 "return" cases. Of the infecting cases, it was found that in 8 no departure from apparently normal health could be found, 1 had developed a nasal discharge, 1 had developed a boil on the neck, 1 had excoriation of nose, and 1 had developed a discharging ear.

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.
2	5	5	1

Altered Diagnosis.—Of the 823 cases admitted to hospital, the diagnosis of scarlet fever was regarded as doubtful in 41 cases, while in 19 no evidence of the presence of scarlet fever could be detected. The diagnosis was revised in 27 other cases, as follows :—Sore throat, 1; rubella, 10; diphtheria, 2; whooping-cough, 1; pneumonia, 1; nephritis, 2; gastro-enteritis, 1; osteomyelitis, 1; sub-maxillary abscess, 1; burn, 2; chickenpox, 4; septic sores, 1. In 1 case the scarlet fever was complicated with whooping-cough and in 2 cases with chickenpox. In addition, in 2 cases isolated at home, the diagnosis as revised by the Assistant Medical Officer of Health was rubella.

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

Typhoid Fever.

TABLE D3.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	465	56	11·95	3·0	4·2
1896-1900 ,,	350	45	12·73	2·0	2·6
1901-05 ,,	294	40	13·54	1·5	2·1
1906-10 ,,	206	19	9·40	1·0	0·9
1911-15 ,,	111	13	11·09	0·5	0·5
1916-20 ,,	86	11	12·74	0·3	0·5
1921-25 ,,	55	6	10·4	0·2	0·2
1925 - -	25	4	16·0	0·1	0·16
1926 - -	18	3	16·6	0·1	0·12
1927 - -	8	2	25·0	0·04	0·08
1928 - -	28	3	10·7	0·1	0·12
1929 - -	18	2	11·1	0·07	0·08

The incidence of typhoid fever continues much lower than the average annual incidence for the preceding quinquennial period, 1921-1925.

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

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases,	3	2	1	—	1	3	—	3	2	1	2	—	18
Deaths,	—	2	—	—	—	—	—	—	—	—	—	—	2

Ages.	-1	1-5	5-15	15-25	25-45	45-65	All ages.
Cases,	—	—	5	6	3	4	18
Deaths,	—	—	—	1	1	—	2

All the cases were removed to hospital (although 2 were admitted as continued fever and 2 as pneumonia), and in 5 cases the diagnosis of typhoid fever was found to require revision. The altered diagnoses were as follows :—Positive widal, 2 ; diarrhœa, 1 ; bronchitis and myocarditis, 1 ; negative, 1. 3 of the cases were notified as para-typhoid B., and 4 others treated in hospital (including 1 admitted as continued fever and 1 as pneumonia) were found to be infected with the same organism. The distribution of cases and deaths is shown on Tables E and B respectively.

Cerebro-Spinal Meningitis.

13 cases were notified ; 3 cases admitted to hospital as meningitis (unqualified), 1 as encephalitis, 1 as influenzal pneumonia, and 1 as pneumonia and meningitis, proved to be cases of cerebro-spinal meningitis. 1 patient died at home, and the others received hospital treatment. 6 patients died in hospital, the certified cause in one case being pneumococcal meningitis and in another gastro-enteritis. Of the eleven patients who recovered, the diagnosis was revised in 5 cases, as follows :—Constipation, 1 ; enteritis, 1 ; bronchitis, 1 ; poliomyelitis, 1 ; no apparent disease, 1. In addition, one case notified as cerebro-spinal fever was discharged from hospital I.S.Q. after seven days' residence, the hospital diagnosis being tuberculous meningitis (?). This patient is still under observation at home (eight months subsequent to discharge).

Puerperal Fever.

The number of cases notified was 98, and the number of deaths 14, as compared with 107 cases and 25 deaths the previous year.

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

Puerperal Pyrexia.

From 1st October (when this condition became notifiable) until the end of the year 7 cases were notified.

Erysipelas.

218 cases were notified, and 8 deaths registered. 65 cases were removed to hospital.

Ophthalmia Neonatorum.

73 cases, as compared with 110 in 1928, were notified. The disease is dealt with in the Maternity and Child Welfare Section of the Report.

Tetanus.

2 cases were notified during the year, and removed to hospital. Both cases terminated fatally.

Malaria.

4 cases were notified during the year, three being members of one family. The disease was probably imported from abroad.

Dysentery.

2 cases were notified during the year, the disease in both instances having been contracted on military foreign service.

Continued Fever.

3 cases were notified and removed to hospital, where the diagnosis was revised as follows:—Enteric fever, 1; paratyphoid B., 1; negative, 1.

Pneumonia.

1381 cases of pneumonia were brought to the notice of the Department, 973 cases being notified; 70 were discovered from the Registrars' returns of deaths, and 54 others were not notified.

384 cases were removed to hospital.

Mortality.—The deaths due to pneumonia numbered *285, giving a fatality-rate of 20·6 per cent., and a death-rate of 1·19 per 1,000 of the population. The following table shows the annual number of deaths and the death-rate per 1,000 since 1921 :—

Year—	1921	1922	1923	1924	1925	1926	1927	1928	1929
Deaths, -	189	301	195	319	220	206	243	205	285
Death-rate,	0·86	1·33	0·83	1·34	0·92	0·87	1·03	0·86	1·19

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

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases, -	369	206	132	82	115	75	46	42	42	59	66	147	1,381
Deaths,	73	39	30	17	27	20	14	14	5	7	16	23	285

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, - -	1,188	151	359	261	93	145	109	70
	Influenzal, - -	193	8	31	21	28	40	32	33
	Total, - -	1,381	159	390	282	121	185	141	103
Deaths, - - - -		285	60	71	11	12	40	49	42
Fatality-rate, - - -		20·6	37·7	18·2	3·9	9·9	21·6	34·7	40 7

Of the 285 deaths from pneumonia, 119 had taken place before notification was received, 70 occurred in cases which were not notified at all, 12 were secondary pneumonias, and of the remaining 84 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	Total.
Fatal Cases Notified, - -	--	1	11	2	4	2	8	34	1	6	8	3	4	84

Information with reference to the day of illness on which each case was notified was recorded in 1,244 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,	10	53	113	149	175	153	125	103	57	32	37	21	97	119

*This figure does not include 82 deaths from Influenzal Pneumonia. Such deaths, in accordance with the instructions of the Registrar-General, being included in the Influenza Group.

Facilities for the Treatment of Cases of Pneumonia.

A scrutiny was made of the records relating to all cases of pneumonia notified in two areas of the District with a view to determining under what conditions treatment was being carried out. In both localities the services of a District Nurse were available, and institutional accommodation was within easy access. The following tables summarise the principal features of the inquiry, and, although the figures chance to be round numbers, this is an accidental occurrence and not due to the use of approximations :—

Treated at Home, ... 200 Cases—55 Deaths.
Treated in Hospital, ... 100 Cases—23 Deaths.

Age Distribution—

	–1	1–5	5–15	15–25	25–45	45–65	+65
Home, ...	36	50	33	10	22	22	27
Hospital, ...	6	31	20	13	19	7	4
	42	81	53	23	41	29	31

Housing Conditions—

	No. of Apartments.					Over
	1	2	3	4	5	5
Home, ...	49	93	32	5	6	15
Hospital, ...	42	30	19	2	1	6
	91	123	51	7	7	21

Nursing Attendant of Cases Treated at Home.

Mother, ...	114
Other Relative, ...	66
District Nurse, ...	7
Private Nurse, ...	7
Others, ...	6
	200

214, or 71 per cent., of the cases came from houses of one or two apartments. In these households two forms of assistance are especially necessary, viz., skilled nursing attendance during the acute phase

of the illness and convalescent treatment during the period of recovery. These may be obtained by removal to hospital, and one-third of the cases were so dealt with. Of those who remained at home, very few were cared for by trained nurses. This is a serious defect in the organisation for dealing with pneumonia, and, if not remedied, might fall to be dealt with by the Local Authority, who are empowered to supply nurses under the Public Health Act, and, in the case of children under 5, under the Notification of Births Act.

The problem is one which merits the careful attention of District Nursing Associations, and should receive early consideration amongst any proposals to make their service more comprehensive.

Under its Child Welfare Scheme, the District Committee provides treatment for convalescent children, either at Calderbank House or at the Centres, and special instructions were issued to Health Visitors to follow up cases of pneumonia and acquaint the parents with the nature of these facilities.

Acute Anterior Poliomyelitis.

5 cases were notified, 1 was discovered at a tuberculosis dispensary, and 1 was discovered in the Registrar's returns. 1 case was admitted to the County Hospital, Motherwell. This patient was discharged well after 8 days, the diagnosis of poliomyelitis not having been established.

Encephalitis Lethargica.

12 new cases were notified during the year, and 2 were discovered in the returns of deaths. 5 of these cases were admitted to the County Hospital, Motherwell; 1 to the Eastern District Hospital, Glasgow; and 1 to the District Asylum, Hartwood. In addition, 7 cases notified prior to 1929 were admitted to institutions, as follows:—Stobhill Hospital, Glasgow, 3; Lanark District Asylum, Hartwood, 3; and County Hospital, Motherwell, 1. 7 deaths were recorded during the year. With regard to the 5 cases admitted to the County Hospital, Motherwell, the diagnosis was revised in 3 cases, as follows:—Tuberculous meningitis, 1; hysteria, 1; cerebral hæmorrhage, 1. At the end of the year 61 cases were on record, of whom 16 were receiving

institutional treatment. After a lengthened period of observation, 17 cases were removed from the list, no symptoms of post encephalitis lethargica being present.

Diarrhœal Diseases.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1925-1929 were :—

	1925	1926	1927	1928	1929
Deaths, - - -	53	43	43	54	38
Death-rate per 1,000, -	0·22	0·18	0·18	0·22	0·16

All the deaths were of children under 2 years of age, 30 being of infants under 1 year and 8 of children from 1 to 2 years, a decrease of 9 and 7 respectively, compared with the corresponding figures for 1928.

Measles.

The deaths from measles numbered 4, which is the lowest number ever recorded in the Middle Ward District.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1924-1929 were :—

	1925	1926	1927	1928	1929
Deaths, - - -	13	71	19	83	4
Death-rate per 1,000,	0·05	0·29	0·08	0·34	0·01

Whooping-Cough.

The number of deaths recorded during the year 1929 was 101, which is the highest figure since 1925.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1925-1929 were :—

	1925	1926	1927	1928	1929
Deaths, - - -	131	25	33	85	101
Death-rate per 1,000,	0·55	0·10	0·14	0·35	0·42

35 per cent. of the deaths from measles and whooping-cough were of infants under 1 year of age, and 97 per cent. were of children under 5 years.

Ringworm.

62 cases of ringworm were brought under the notice of the Department, and 7 were treated at the County Hospital, Motherwell.

Scabies.

During the year 200 cases were reported. 12 cases were treated in the County Hospital, Motherwell.

Venereal Diseases.

The County scheme for the recognition and treatment of these diseases includes the Middle Ward District, and the work done under the scheme is given in the County Report, along with the number of cases dealt with from each area at the various treatment centres.

School Closure.

It was not found necessary to recommend the closure of any school or department during the year.

Anthrax.

Under the Diseases of Animals Act, 1894, 9 outbreaks of anthrax, affecting 11 cattle, were reported by the Inspector under the Anthrax Order. The outbreaks were distributed as follows:—Avondale, 1; East Kilbride, 4; Dalserf, 1; Hamilton, 1; New Monkland, 1; Old Monkland, 1.

Institutions.

During the year 4,779 Middle Ward patients, and 423 patients from areas outwith the Middle Ward, were admitted to the various institutions, making a total of 5,202 admissions. The respective institutions are dealt with separately in another section of this Report:—

The following statistical tables, F (*a*) and (*b*), give detailed information with regard to the admissions:—

TABLE F.—HOSPITALS AND SANATORIA. (*a*) PATIENTS ADMITTED FROM MIDDLE WARD DISTRICT.
(*Admissions as notified.*)

HOSPITALS AND SANATORIA.	Cases in Hospital at the beginning of year.	Admitted during year from the Middle Ward.	Discharged	Died.	Cases remaining in Hospital at the close of year.	NATURE OF CASES ADMITTED DURING YEAR. Diphtheria.	Scarlet Fever.	Typhoid Fever.	Cerebro-Spinal Fever	Puerperal Fever	Puerperal Pyrexia.	Erysipelas	Pneumonia.	Influenza.	Pulmonary Tuberculosis.	Tuberculosis. All other forms.	Venereal Diseases.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Measles.	Whooping-cough.	Continued Fever.	Chickenpox	Other Diseases	Mothers.	Children.	Total.
Motherwell,	176	2,113	1,984	154	151	639	729	11	6	75	3	60	337	3	3	32	49	16	6	4	12	3	4	121	—	—	2,113
Lightburn,	25	162	153	10	24	22	89	—	—	—	—	5	44	—	—	—	—	—	—	—	—	—	—	2	—	—	162
Shotts,	51	115	98	24	44	—	—	—	—	—	—	—	—	—	91	24	—	—	—	—	—	—	—	—	—	—	115
Stonehouse,	72	59	56	6	69	—	—	—	—	—	—	—	—	—	—	51	—	—	—	—	—	—	—	8	—	—	59
Longriggend,	48	149	134	18	45	—	—	—	—	—	—	—	—	—	95	51	—	—	—	—	—	—	—	3	—	—	149
Hairmyres,	192	188	199	—	181	—	—	—	—	—	—	—	—	—	88	100	—	—	—	—	—	—	—	—	—	—	188
Dalserf,	14	25	24	—	15	—	—	—	—	—	—	—	—	—	—	25	—	—	—	—	—	—	—	—	—	—	25
Bellshill,	33	1,236	1,207	37	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	788	*448	1,236
Calderbank House,	35	615	593	20	37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	221	394	615
Blantyre,	12	117	113	3	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	83	34	117
TOTALS,	658	4,779	4,561	272	604	661	818	11	6	75	3	65	381	3	277	283	49	16	6	4	12	3	4	134	1,092	876	4,779

* Includes 431 children born in Hospital

TABLE F.—HOSPITALS AND SANATORIA. (*b*) PATIENTS ADMITTED FROM AREAS OUTWITH THE MIDDLE WARD DISTRICT.

AUTHORITY.	COUNTY HOSPITAL, MOTHERWELL.									COUNTY SANATORIA.				BELLSHILL HOSPITAL.		CALDERBANK HOUSE.		BLANTYRE HOSPITAL.	
	Diphtheria.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	Pneumonia.	Tuberculosis. All forms.	Venereal Diseases.	Other Conditions.	Shotts.	Stonehouse.	Uppertown.	Hairmyres.	Dalserf.	Mothers.	Children.	Mothers.	Children.	Mothers.	Children.
Upper Ward,	—	—	—	1	—	—	3	6	2	1	1	2	—	56	32	9	9	2	1
Lower Ward,	—	1	—	1	—	—	1	—	—	—	—	2	1	49	34	8	13	—	—
Airdrie,	—	—	—	7	1	—	2	2	—	—	1	—	—	—	—	—	—	—	—
Coatbridge,	1	—	—	7	—	—	4	1	—	—	—	—	—	—	—	—	—	—	—
Hamilton,	—	—	—	2	6	—	7	2	—	—	—	15	—	1	1	—	—	—	—
Motherwell and Wishaw,	—	—	—	—	—	—	25	1	—	—	—	1	—	1	—	—	—	—	—
Rutherglen,	—	—	—	—	—	—	—	3	—	—	—	3	—	—	—	—	—	—	—
Clydebank,	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—
East Lothian,	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	—
Ayrshire,	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—
Berwick,	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—
Dunbartonshire,	—	—	—	12	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—
Glasgow,	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	—	—	—
Greenock,	—	—	—	—	—	—	—	—	—	—	—	5	—	—	—	—	—	—	—
Lanark,	—	—	—	2	—	—	1	3	—	—	—	—	—	20	10	2	3	—	—
Renfrewshire,	—	—	—	—	—	—	—	—	—	—	—	9	—	—	—	—	—	—	—
Stirling,	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Totals,	1	1	—	32	7	—	43	18	2	1	3	63	1	127	77	19	25	2	1

Tuberculosis.

Mortality.—The deaths from all forms of tuberculosis numbered 189, viz. :—Pulmonary, 125; meningeal, 22; abdominal, 20; and other forms, 22. In the following table the deaths are classified in age periods :—

Ages,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Pulmonary, -	—	—	1	6	34	35	20	23	6	125
Meningeal, -	2	10	5	2	1	1	1	—	—	22
Abdominal, -	1	10	3	2	1	—	2	1	—	20
Other forms, -	—	2	—	1	5	3	4	5	2	22
Total, -	3	22	9	11	41	39	27	29	8	189

Death-rates. — The death-rates per 10,000 of the population were :—

	Pulmonary.	Meningeal.	Abdominal.	Other Forms.
1925, - -	5·6	1·6	1·9	0·5
1926, - -	5·2	1·3	1·4	1·0
1927, - -	4·7	1·2	1·2	0·6
1928, - -	4·8	1·5	1·0	0·7
1929, - -	**5·2**	**0·9**	**0·8**	**0·9**

The average quinquennial death-rates per 10,000 of the population since 1891-1925, and for the years 1926, 1927, 1928, and 1929 are shown in the following table :—

Years.	Pulmonary.	Non-Pulmonary.	All Forms.
1891-1895, -	13·57	9·88	23·45
1896-1900, - -	11·44	9·11	20·55
1901-1905, - -	10·00	8·31	18·31
1906-1910, - -	8·83	8·56	17·39
1911-1915, - -	8·16	6·53	14·69
1916-1920, - -	7·57	5·28	12·85
1921-1925, - -	5·93	4·83	10·76
1926, - -	5·27	3·91	9·18
1927, - -	4·78	3·12	7·90
1928, - -	4·89	3·26	8·15
1929, - -	5·23	2·67	7·90

Notification.—There were on record at the beginning of the year 1,304 cases of pulmonary and 1,612 cases of non-pulmonary forms of the disease, and during the year 321 new cases of the former type and

324 new cases of the latter were brought to notice, giving a total of 1,625 and 1,936 cases respectively. The following tabular statement shows the number of new cases notified by medical practitioners, and those not so notified, the latter being cases which came to the knowledge of the department through dispensaries or from the Registrar's death returns :—

	Pulmonary.	Non-Pulmonary.
New cases notified, - - - -	225	240
„ „ not notified, - - - -	96	84
	321	324

The above figures show a slight decrease in the number of new cases.

During the year 284 patients were sent to out-patient clinics by their own medical attendants, 118 were asked to attend by members of our outdoor staff, 16 were sent by the School Medical Authorities, 181 attended of their own accord—a total of 599, of whom 129 proved to have some tuberculous infection.

The new cases were dealt with as follows :—

	Pulmonary.	Non-Pulmonary.
Admitted to Sanatorium, - - -	161	146
Refused to go to Sanatorium, - -	45	31
Died before or soon after notification, -	53	38
Inmates of asylums, &c., - - -	2	—
Visitors or left district, - - -	12	12
Unsuitable for institutional treatment, -	3	6
Waiting treatment towards end of year,	13	13
Out-patient treatment at dispensaries and other institutions, - - -	32	78
	321	324

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.

Types of Non-Pulmonary Cases.—The 324 new cases are classified in the following statement according to the localisation of the principal lesion present at the time of notification :—

Cervical glands, - -	110	†Special organs, - -	13
Abdomen, - - -	86	Skin and sub-cutaneous	
*Bones and joints, -	68	tissue, - - -	3
Meninges, - - -	28	Lupus, - - -	10
General, - - -	6		——
			324

Distribution throughout District.—The parishes of residence are given in Table E.

Age, Sex, and Diagnosis.—The following table shows the new cases classified according to age, sex, and diagnosis. The diagnosis may not have been verified for a variety of reasons; *e.g.*, the patient may have been under observation for an insufficient period, may have refused examination, or the disease may have been found to be non-tuberculous :—

Pulmonary Tuberculosis.—321 cases notified.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.	Diagnosis of Tuberculosis verified.
Males, -	6	25	17	34	31	20	31	6	170	98
Females,	4	17	19	47	30	18	15	1	151	100

Non-Pulmonary Tuberculosis.—324 cases notified.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.	Diagnosis of Tuberculosis verified.
Males, -	41	49	27	22	11	3	5	1	159	129
Females,	43	43	31	20	12	7	9	—	165	119

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* *Bones and Joints—Detailed.*—Spine, 16 ; Hip Joint. 17 ; Knee Joint, 14 ; Ankle Joint, 2; Elbow Joint, 2; Tibia, 1 ; Dactylitis, 8 ; Thigh, 1 ; Tarsus, 1 ; Humerus, 1 ; Ribs, 2 ; Wrist, 2 ; Os-calcis. 1.

† Eyes, 7 ; Urinary tract, 1 ; Otitis media, 2 ; Testicle, 1 ; Kidney, 2.

Statement showing cases where diagnosis was not confirmed, and the reasons. Altered diagnosis given in detail :—

PULMONARY TUBERCULOSIS.

	Males.	Females.
1. Suspected tuberculosis—tuberculised, ...	36	26
2. Altered Diagnosis—		
Tuberculosis—abdomen, ...	—	1
Tuberculosis—meninges, ...	—	1
Chronic naso-pharyngitis, ...	4	2
Tonsils and Adenoids, ...	2	—
Pulmonary fibrosis, ...	7	—
Bronchitis, ...	5	1
Emphysema, ...	1	—
Pleurisy, ...	—	1
Bronchiectasis, ...	1	—
Empyema, ...	1	1
Unresolved pneumonia, ...	1	—
Hæmoptysis of unknown origin, ...	—	1
Carcinoma, upper mediastinum and left lung,	1	—
Diabetes.	—	1
Anæmia, debility and malnutrition, ...	7	10
Lienteric diarrhoea, ...	1	—
Rickets, ...	1	—
Rheumatoid arthritis, ...	1	—
3. No apparent disease, ...	1	1
4. Left district—diagnosis not established, ...	2	5

NON-PULMONARY TUBERCULOSIS.

	Males.	Females
1. Suspected tuberculosis—tuberculised, ...	3	8
2. Altered Diagnosis—		
Tuberculosis—Pulmonary, ...	—	2
Gastro-enteritis and food disorders, ...	2	5
Pyogenic osteomyelitis, ...	1	1
Simple arthritis, ...	—	1
Traumatic periostitis, ...	1	—
Traumatic synovitis, ...	1	—
Myositis, ...	1	1
Sarcoma—femur, ...	2	—
Nephritis and cystitis, ...	1	1
Meningitis—non-tuberculous, ...	2	2
Adenitis non-tuberculous, ...	3	10
Rickets and deficiency disease, ...	2	3
Anæmia debility, and malnutrition, ...	5	6
Others, ...	4	3
3. No apparent disease, ...	1	—
4. Left district—diagnosis not established, ...	1	3

X-Ray Examinations.

X-ray 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 and Longriggend Sanatoria is shown in the following statement :—

Year.	Examinations.	Year	Examinations.
1921	37	1922	108
1923	143	1924	143
1925	174	1926	230
1927	439	1928	497
1929	490	—	—

The following table gives the new cases classified in occupational groups :—

Occupations.	Pulmonary.	Non-Pulmonary
Domestic Work—		
Housewives,	48	22
Domestics,	22	7
Midwife,	1	—
Children,	9	92
Scholars,	85	146
Miners, &c.—		
Miners.	41	14
Pithead workers,	4	1
Metal Workers—		
Steelworkers,	8	4
Tinsmith,	1	—
Engineer,	4	4
Plumbers,	2	—
Chemist,	—	1
Others,	6	—
Factory and Workshop—		
Factory Workers,	—	—
Tailoress,	1	2
Dressmakers,	2	—
Dye worker,	1	—
Laundress,	2	—
Others,	1	—
Shopkeepers,	9	3
Stone or Brickworkers—		
Bricklayers,	1	1
Mason,	—	1
Labourer,	—	—
Miscellaneous,	44	19
No occupation,	29	7
	321	324

Duration of Illness.—The duration of illness according to patients' own estimate at time of notification was as follows:—

Months,	-1	1-2	2-3	3-6	6-9	9-12	12-18	18-24	24 & over.	Not Known.	Total.
Pulmonary,	17	26	32	63	24	21	17	8	76	37	321
Non-Pulmonary,	58	43	22	48	32	10	27	11	67	6	324

It will be noticed from the above figures that a large number of the cases are not notified for a considerable period after the onset of symptoms.

Home Conditions.—The following tables show the number of apartments and types of houses occupied by the patients and their families:—

Pulmonary Cases—

Apartments.	Tenement.	Cottages.	Row.	Institutions.	Total.
1	32	3	31	—	66
2	64	14	46	—	124
3	26	40	4	—	70
4	7	11	1	—	19
Over 4	—	22	—	20	42
					321

Apartments.	1	2	3	4 and over.
Total inmates, - - -	328	727	401	213
Average number per house,	4·97	5·86	5·72	5·19
,, ,, per room,	4·97	2·93	1·90	under 1·29

Housing conditions of 270 cases of Infectious Pulmonary Tuberculosis.

A survey of the housing conditions of all the spit positive cases of pulmonary tuberculosis was made in December, and the results are summarised in the following tables:—

Table I.

Households in the Middle Ward exposed to infection from cases of pulmonary tuberculosis (spit positive), showing number of cases in 1, 2, 3, and 4 and over apartment houses, and how many cases have bed to self or room to self:—

	One Apt.			Two Apts.			Three Apts.			Four and Over Apts.		
	Bed to Self.	Room to Self.	Total.	Bed to Self.	Room to Self.	Total.	Bed to Self.	Room to Self.	Total.	Bed to Self.	Room to Self.	Total.
At Home, -	4	—	20	21	6	76	6	24	44	5	20	36
In Sanatoria, -	7	—	18	18	5	53	8	3	16	—	6	7

TABLE II.

Showing the position of case in the family, sons and daughters being given in age periods from 0-20 and over, non-family cases being lodgers, &c. :—

Father.	Mother.	Sons.			Daughters.			Non-Family.
		0-15.	15-20.	20 and over.	0-15.	15-20	20 and over.	
66	54	—	16	51	7	20	42	15

No abnormal conditions prevailed when the survey was made, and it may be assumed that the results represent the ordinary state of affairs.

In the above Table the number of individual cases dealt with is 271, owing to the fact that in one household there were two cases of infectious pulmonary tuberculosis.

The figures reveal a definite case for the supervision of home conditions. Only 64, or 23·7 per cent., could be completely isolated in a room; 69, or 25·5 per cent., had partial isolation in a bed; and 137, or 50·7 per cent., shared a bed with another member of the household.

Infectious cases were isolated in institutions to the extent of 34 per cent. of the total; more than half were at home. Of those who lived in one-apartment houses, 47 per cent. were in hospitals or sanatoria; in two apartments, 41 per cent.; in three apartments, 26 per cent.; in four apartments, 16 per cent.

Attention must be given to the housing conditions of those who were in institutions, because the majority return home and reside there for longer or shorter periods. Less than 10 per cent. die in sanatoria during a first period of residence.

On the other hand, the degree to which the housing conditions should be modified is affected by the duration of illness. 40 per cent. of our cases die during the year, and many within a few months of notification.

The majority of the cases come from families who find it difficult to maintain an ordinary standard of living. Their ability to provide special accommodation for the isolation of a case of infectious tuberculosis is further modified by the wage-earning capacity of the member affected. Table II shows how disastrously the family income is reduced by the invasion of tuberculous disease. In 66 instances the father was incapacitated, and practically all these families—

24 per cent. of those under review—would become destitute. In a further 18 per cent. the humble income was reduced by the loss of the contributions of a grown-up son, and in 15 per cent. by the potential earnings of an adult daughter. In 20 per cent. the mother was invalided, and an indirect financial liability usually follows this calamity in attempts to procure a substitute for her. In brief, the table confirms what is already well known—few working-class families can afford to provide special accommodation for a case of prolonged illness.

Moreover, it will be observed that the problem of the consumptive is not only one of housing. Even more, it is a question of providing adequate attention and supervision—domestic and nursing attendance, freedom from worry and noise, ordinary and special nourishment, and so on.

As a solution to the problem, the provision of houses by the Local Authority is seriously complicated by the fact that patients live in their own homes for variable periods, and not continuously, because of the recurrent need for institutional care.

It is clear that no stereotyped remedy can be applied to every case. For the great majority, hospitalisation is the only practical method of supplying all their needs. The provision of a bed and of extra nourishment is all that is required for the short periods they will spend at home. In a few cases it might be advisable to rehouse the patient. Where the disease is tending towards quiescence or chronicity, and the patient is known to possess the character and temperament necessary to carry out home treatment successfully—in such exceptional cases the Local Authority might assist in providing suitable accommodation.

Non-Pulmonary Cases—

Apartments.	Tenement.	Cottages.	Row.	Institutions.	Total.
1	45	7	38	—	90
2	85	8	47	—	140
3	15	52	6	—	73
4	2	6	1	—	9
Over 4	1	7	—	4	12
					324

Apartments.	1	2	3	4 and over.
Total inmates, - -	479	863	469	84
Average number per house,	5·32	6·16	6·42	4·94
,, ,, per room,	5·32	3·08	2·14	under 1·23

Institutional Treatment.—The following table shows the total number of all cases admitted and re-admitted to tuberculosis institutions. No case was sent to any institution outwith the County :—

Cases.	Shotts.	Stonehouse.	Uppertown.	Motherwell.	Lightburn.	Hairmyres.	Dalserf.
Pulmonary,	91	—	95	3	—	88	—
Non-Pulmonary,	24	51	51	32	—	100	25
	115	51	146	35	—	188	25

Sputa Examination. — Of the 321 cases notified, 203 had sputa examination and 124, or 61 per cent., gave a positive result ; 79, or 39 per cent., gave a negative result. In 118, or 36·7 per cent. of the total cases, no sputum examination was made.

Family History of Tuberculosis.—Of the 321 pulmonary cases and the 324 non-pulmonary cases brought to notice during the year a family history of tuberculosis was obtained, as follows :—

	Cases with Tuberculosis in other members of family.	Cases with Tuberculosis in other relatives.	Percentage of cases with positive family history.
Pulmonary, - - -	98	27	30·5
Non-Pulmonary, - -	77	27	23·7

Deaths in relation to Notification.—The table given below shows the deaths classified according to the time which elapsed between the receipt of notification and the occurrence of death, and also the deaths of unnotified cases :—

Year.	Total Cases.	Fatal Cases.		Fatal Cases Notified—Period between Notification and Death.				
		Unnotified.	Notified.	1 Month.	1-3 Months.	3-6 Months.	6-12 Months.	Over 1 Year.
1908	301	43	141	40	36	21	18	26
1909	338	52	155	36	33	27	25	34
1910	370	30	131	34	30	16	22	29
1911	336	24	161	31	30	20	29	51
1912	365	22	138	30	20	26	19	43
1913	369	26	150	35	27	30	31	27
1914	274	16	123	21	21	17	17	47
1915	327	20	144	32	21	16	25	50
1916	340	17	149	32	25	20	22	50
1917	289	31	127	20	18	18	23	48
1918	395	50	124	29	22	17	16	40
1919	366	21	125	29	23	21	21	31
1920	355	17	144	43	19	19	21	42
1921	379	10	129	27	28	17	17	40
1922	368	11	120	37	21	17	17	28
1923	422	11	136	37	25	29	15	30
1924	415	11	122	24	18	23	11	46
1925	393	8	125	21	34	16	15	39
1926	399	6	119	25	21	14	13	46
1927	338	6	107	22	14	19	13	39
1928	333	7	110	25	14	17	14	40
1929	321	6	119	18	22	12	18	49

The proportion of cases notified only a few months before death remains high.

Cases under Observation.—The cases dealt with each year are steadily increasing, and since 1919 the number has risen from 821 to 1,625 in the case of pulmonary tuberculosis, and from 813 to 1,936 for non-pulmonary tuberculosis.

Of the total number of 1,625 pulmonary and 1,936 non-pulmonary cases deal with throughout the year, the following table shows the changes which took place :—

	Cases in District on 1/1/29.	New Cases.	Total on Register.	Left District.	Died.	Off list. Disease arrested or diagnosis revised.	Cases in District on 31/12/29.
Pulmonary,	1,304	321	1,625	136	155	202	1,132
Non-Pulmonary,	1,612	324	1,936	171	69	375	1,321
	2,916	645	3,561	307	224	577	2,453

STATEMENT SHOWING NUMBER OF PERSONS RESIDENT IN THE AREA TA 31ST DECEMBER, 1929, WHO WERE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

		Number of Known Cases								
		Under 5	5 and under 10	10 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 65	65 and upwards	Total
PULMONARY.*										
1. Tubercle Bacilli found, ...	Males,	—	2	2	48	54	24	38	—	168
	Females,	—	1	7	52	26	22	17	—	125
2. Tubercle Bacilli not found, ...	Males,	5	84	69	92	79	71	66	7	473
	Females,	15	75	77	66	52	48	31	2	366
NON-PULMONARY.†										
1. Abdominal, ...	Males,	20	68	44	32	3	1	—	—	168
	Females,	26	56	42	21	8	3	1	—	157
2. Spine, ...	Males,	11	7	7	14	4	—	2	—	45
	Females,	8	4	6	5	4	1	2	—	30
3. Bones and Joints (exclusive of Spine), ...	Males,	20	31	38	38	10	7	10	1	155
	Females,	11	22	17	32	6	5	6	—	99
4. Superficial Glands,	Males,	19	81	66	44	27	6	8	1	252
	Females,	3	70	73	101	27	11	9	1	295
5. Lupus, ...	Males,	—	2	—	5	3	—	—	—	10
	Females,	—	3	5	4	2	4	1	—	19
6. Other parts or Organs, ...	Males,	1	10	5	—	8	6	4	—	34
	Females,	5	16	15	4	7	6	4	—	57
TOTAL, ...		144	532	473	558	320	215	199	12	2,453

* 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 in the return.

Cases of notified tuberculosis dying and classified to causes other than tuberculosis. It is to be noted that 25 pulmonary and 5 non-pulmonary cases died from some cause certified to be other than tuberculosis, viz. :—

Pulmonary, 25 *cases.*—Influenza, 3; pleurisy, 3; pneumonia, 4; bronchiectasis, 1; congestion of lungs, 1; bronchitis, 4; carcinoma lungs, 2; whooping-cough, 3; scarlet fever, 1; gastro-enteritis, 1; appendicitis, 1; acute myocarditis, 1.

Non-Pulmonary, 5 *cases.*—Influenza, 1; meningitis, 2; sarcoma femur, 1; congenital debility, 1.

When tuberculosis appears as one of two causes of death, it is possible to find in the final classification that the other cause has taken preference; *e.g.*, tuberculosis in combination with malignant disease, measles, whooping-cough, or any of the diseases detailed in Groups 1 and 2 of the International List of causes of death.

Off List—

Pulmonary Tuberculosis, 202 *cases.*—In 109 instances the disease was arrested, and the patients had been free of symptoms for a sufficiently long period to justify the removal of their names from the register.

The diagnosis was altered as follows in 93 cases:—Tuberculosis (eyes), 1; chronic naso-pharyngitis, 5; tonsils and adenoids, 2; pulmonary fibrosis, 24; asthma, bronchitis, and emphysema, 19; empyema, 3; pneumonia, 1; hæmoptysis of unknown origin, 1; cardiac disease, 3; diabetes, 1; nephritis, 1; anæmia, debility, and malnutrition, 18; gastro-intestinal disease, 3; rickets and deficiency disease, 1; rheumatoid arthritis, 1; others, 4; no apparent disease, 5.

Non-Pulmonary Tuberculosis, 375 *cases.*—In 285 instances the disease was regarded as arrested, and in 90 the diagnosis was altered as follows:—Tuberculosis (pulmonary), 1; scarlet fever, 1; gastro-enteritis and food disorders, 9; pyogenic osteomyelitis, 4; simple arthritis, 1; traumatic periostitis, 1; traumatic synovitis, 3; myositis, 1; sarcoma femur, 1; meningitis (non-tuberculous), 1; other nervous diseases, 6; adenitis (non-tuberculous), 17; rickets and deficiency disease, 10; anæmia, debility, and malnutrition, 17; others, 12; no apparent disease, 5.

Duration of Illness at Death.—The table given below shows the fatal cases classified according to the total duration of illness:—

	Months.						Years.							Un-
Duration.	1-3	3-6	6-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10	known.
Pulmonary, - -	2	17	23	23	14	15	11	5	4	5	4	1	13	18
Non-Pulmonary, -	30	6	4	7	3	3	2	1	2	3	—	2	4	2

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 Nurse Inspectors, the latter of whom paid 19,888 visits during the course of the year.

During the year 133 cases received additional nourishment in the form of milk, eggs, butcher meat, and butter, at a total estimated cost of £677. In addition, supplies of malt and cod-liver oil were provided for those and other cases.

Out-Patient Clinics.

Table showing the work done at the clinics :—

	New Cases.	Re-attendances.
County Orthopædic Hospital, Stonehouse—		
Minor operations,	262	59
X-ray examinations,	253	76
Consultations,	341	288
Artificial sunlight treatment,	70	4,751
Electric treatment,	4	91
Miscellaneous cases,	42	305
County Sanatorium, Shotts—		
Artificial sunlight treatment,	38	1,535
Health Institute, Cambuslang—		
Artificial sunlight treatment,	28	2,218
Health Institute, Shotts—		
Minor ailments,	57	588
Health Institute, Blantyre—		
Minor ailments,	34	61
Artificial Sunlight Treatment,	27	774

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

	New Cases.	Re-attendances.
Bellshill,	261	2,586
Blantyre,	85	1,592
Cambuslang,	138	4,563
Larkhall,	110	669
Shotts,	179	1,130
	773	10,540

The new cases attending the dispensaries are classified in the following tables according to age, sex, and diagnosis, and the persons who recommended them to attend :—

TABLE SHOWING CASES CLASSIFIED ACCORDING TO AGE, DIFFERENTIATING BETWEEN CASES NOTIFIED AND NOT NOTIFIED.

	0-5		5-15		15-25		25 and over.		Total.	
	Notified.	Not Notified.	Notified.	Not Notified.	Notified.	Not Notified.	Notified.	Not Notified.	Notified.	Not Notified.
Bellshill, -	8	49	30	114	16	21	9	14	63	198
Blantyre, -	5	8	11	26	15	5	7	8	38	47
Cambuslang,	9	12	13	55	5	10	13	21	40	98
Larkhall, -	2	12	—	53	1	9	4	29	7	103
Shotts, -	5	21	4	92	10	13	7	27	26	153
Total, -	29	102	58	340	47	58	40	99	174	599

TABLE SHOWING ADULT CASES CLASSIFIED ACCORDING TO SEX, DIFFERENTIATING BETWEEN CASES NOTIFIED AND NOT NOTIFIED.

	Males.		Females.	
	Notified.	Not Notified.	Notified.	Not Notified.
Bellshill, - - -	14	17	11	18
Blantyre, - - -	12	6	10	7
Cambuslang, - -	8	16	10	15
Larkhall, - - -	4	20	1	18
Shotts, - - -	8	15	9	25
Total, - -	46	74	41	83

TABLE SHOWING NOTIFIED CASES CLASSIFIED ACCORDING TO NOTIFICATION AND PROVISIONAL DIAGNOSIS.

	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Non-Tuberculous.
Bellshill, - - -	13	36	14
Blantyre, - - -	9	25	4
Cambuslang, - -	12	24	4
Larkhall, - - -	2	3	2
Shotts, - - -	9	15	2
Total, - - -	45	103	26

TABLE SHOWING CASES NOT NOTIFIED SENT TO THE DISPENSARIES BY DOCTORS IN THE DISTRICT, PUBLIC HEALTH STAFF, SCHOOL MEDICAL AUTHORITIES, OR CAME OF THEIR OWN ACCORD, CLASSIFIED TO TUBERCULOSIS—PULMONARY AND NON-PULMONARY, AND NON-TUBERCULOUS DISEASES.

By whom Sent	Type	Bellshill	Blantyre	Cambuslang	Larkhall	Shotts	Total	Total
Sent by Doctors, -	Pulmonary, - - -	20	2	—	6	10	38	284
	Non-Pulmonary, - -	24	6	—	1	12	43	
	Non-Tuberculous, -	50	22	31	27	73	203	
Sent by Public Health Staff, - - -	Pulmonary, - - -	7	—	—	2	1	10	118
	Non-Pulmonary, - -	6	2	—	3	3	14	
	Non-Tuberculous, -	28	8	21	16	21	94	
Sent by School Medical Authorities, -	Pulmonary, - - -	1	—	—	—	—	1	16
	Non-Pulmonary, - -	—	—	1	1	—	2	
	Non-Tuberculous, -	3	—	5	4	1	13	
Came of own accord,	Pulmonary, - - -	4	—	—	2	1	7	181
	Non-Pulmonary, -	4	2	3	2	3	14	
	Non-Tuberculous, -	51	5	37	39	28	160	

EAR, NOSE, AND THROAT AILMENTS.

No. of Sessions.	No. of 1st visits.	No. of Re-visits.	Operations recommended.	Operations performed
21	20	4	17	13

The operations performed were as follows:—

Tonsils and adenoids, - - -	11
Antral puncture, - - - -	1
Incision of Retropharyngeal abscess, -	1
Total, - -	13

The difference in the number of operations recommended and operations performed is made up as follows:—

Too ill for operation, - - - -	1
Awaiting operation at the end of the year, - - - - -	3
Total, - -	4

One patient had laryngoscopic examination prior to cautery, which he was awaiting at the end of the year.

The above figures include 3 patients admitted directly to Institution for operation.

Attendances at the Clinic were recommended from the following sources :—

Shotts Sanatorium,	2
Longriggend Sanatorium,	2
Bellshill Dispensary,	1
Larkhall do.	4
Shotts do.	7
Blantyre do.	2
Public Health Staff,	1
Upper Ward,	1
Total,	20

Deaths.—155 pulmonary cases and 69 non-pulmonary cases died. Of these, 80 and 49 respectively were of cases notified during the year.

The pulmonary death-rate for 1929 was 5·2 per 10,000 of the population, and the non-pulmonary, 2·6. The mortality for pulmonary forms is given in the following table, which shows the average annual number of deaths in each Registration District since 1891 :—

PULMONARY TUBERCULOSIS IN EACH REGISTRATION DISTRICT OF THE MIDDLE WARD.—AVERAGE ANNUAL NUMBER OF DEATHS FOR QUINQUENNIAL PERIODS 1891-1925, AND FOR THE YEARS 1926, 1927, 1928, AND 1929.

Registration District.	Population. Census 1921.	1891-95.	1896-1900.	1901-05.	1906-10.	1911-15.	1916-20.	1921-25.	1926.	1927.	1928.	1929.
Avondale,	5,902	10·2	7·4	5	7	4	3·3	2·4	1	1	4	6
East Kilbride,	4,787	4·6	6·2	5·8	5·8	4·2	4·4	43·3	4	3	3	3
Glasford,	4,131	1·4	·8	1·2	1·2	3	·6	1	1	2	1	1
Stonehouse,	4,204	4·8	6·8	4·2	2	2·4	2·2	2	1	1	1	2
Blantyre,	18,154	18·2	17·6	22·2	15·6	19·3	16·1	17·2	14	10	15	13
Bothwell,	19,904	18	14·6	17·8	14	15·3	15·1	14·1	14	16	8	13
Bellshill,	20,934	10·6	18	13·6	15·4	16	19	16·1	15	10	10	14
Holytown,	18,579	13·4	11·4	13·4	16·8	13	14·1	8·3	14	11	9	14
Cambuslang,	26,130	28·4	25·4	27	19·4	24·1	25	16·4	18	10	19	13
Cambusnethan,	12,243	13·8	7·4	9·2	9·4	11·1	8	10·2	4	7	7	8
Calderhead,	4,007	2·2	2·8	2·8	2·6	1·4	4	2·3	2	2	5	1
Dalserf,	4,491	3·8	1·8	4·2	2·6	2·2	2·1	2·4	—	2	2	1
Larkhall,	14,974	12	14·2	12·6	7·4	7·3	7·4	6	5	2	1	5
Dalziel,	2,023	1·8	1·2	2·4	2·4	1·2	·8	1	2	2	1	1
Hamilton,	7,921	11	6·8	6	6·8	5·2	3·3	3·3	5	5	2	3
New Monkland,	13,773	14·6	18·2	11·6	14·2	9·2	7·4	5·3	8	7	5	4
Old Monkland—												
East,	2,435	2·2	1·2	1·8	2	2	1·4	1·2	—	2	1	—
Coatbridge,	2,910	2·8	2·6	1·8	2·6	2·3	1·4	1·1	1	1	1	1
West,	13,415	15·6	12	9·8	11·2	10·4	8·1	7	7	9	14	12
Shotts—												
East,	4,667	2·8	2·8	1·8	3	3	2·1	3·1	1	1	2	1
Middle,	3,605	1·2	1·6	1·6	2·2	1·1	1	1·1	2	2	1	1
Calderhead,	6,347	3	4·2	5·2	5·4	4·2	5·2	4·1	2	3	2	5
West,	4,660	4·6	5·8	4·8	4·6	3·1	3	3·2	4	2	2	3
North,	1,303	2·2	2·2	1·8	1·6	1·3	1·3	0·2	—	2	1	—
TOTAL,	218,817	203·2	193	187·6	175	168·1	161	132·3	125	113	117	125

Discharged Tuberculous Soldiers.—Among the cases notified for the first time during 1929 were 6 discharged soldiers, all suffering from the pulmonary form of the disease. The relationship of the disease to military service according to the Ministry of Pensions was—attributable, 3; aggravated, 1; and undecided, 2.

Institutional treatment in sanatorium or farm colony was given to 2 cases; 2 cases refused in-patient treatment, 1 died, and 1 received out-patient treatment.

The total number of ex-service men dealt with throughout the year as suffering from tuberculosis was 63. In addition to domiciliary visits made to those cases by the Tuberculosis Officers and attendances made by the men at the dispensaries, 347 home visits were made by Nurse-inspectors—*i.e.*, 1·7 per cent. of the total visits paid by them.

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

Refractories Industries (Silicosis) Scheme, 1925.

Under "The Refractories Industries (Silicosis) Scheme, 1925," as from 1st May, 1925, only initial examinations are carried out by the Tuberculosis Officers of the County of Lanark, subsequent examination being done by the Medical Board set up under the scheme.

7 initial examinations of workers employed under the above scheme were carried out during the year. 4 from Struther Ganister Mine, Birkenshaw, Larkhall, and 3 from Birkenshaw Brickworks, Larkhall. All workers were found satisfactory with respect to physique required.

County Sanatorium, Shotts.

Physician-Superintendent—
D. R. Hamilton, M.A., M.B., Ch.B., D.P.H.

Visiting Physician—John MacMillan, M.B., Ch.B.

Matron—Miss Keir.

Administration.

Buildings and Grounds.—It is gratifying to record that since the purchase last year of the remaining seams of coal under the existing buildings, and the removal of the wooden shoring against some of the outer walls, no subsidence of older workings nor structural damage has taken place.

In consequence, during the year the Committee felt justified in their confidence of the stability of the feu, and sanctioned the further removal of internal wooden supports in Pavilion II and in the administration block and an extensive scheme of repainting and decoration. This work, carried out by the Works Department, has effected a much-enhanced appearance and freshness to the entire Institution.

Radiators have been installed in the cubicles of Pavilion III.

Alterations in the grounds, such as the removal of overgrown lilac and holly foliage in front of Pavilion I, the macadamising of certain paths, and the laying out of an entirely new path round the additional feu on the north (a work which is still in progress), have added to the convenience of patients and staff. In addition, the fence enclosing the plantation on the west side of Benhar Road, opposite the Sanatorium, has been again overhauled and partially rewired.

Negotiations, which have the approval of the Shotts Iron Company, Ltd., are meanwhile proceeding with the Clyde Valley Electrical Supply Company, Ltd., for the supply of electricity to the Institution under more advantageous terms than was possible under the existing contract. The estimated saving on the basis of current consumption is considerable, and has prompted the Committee to consider the installation of electrical cooking equipment in the kitchen. Estimates of cost are being prepared.

ACCOMMODATION.—Remains unchanged: 46 beds and 8 cots. The emergency bed in the side-room, Pavilion II, is not included in this number. Of beds, 32 are allocated for males and 14 for females.

STAFF. — The *Medical Staff* is non-resident, and remains unchanged. *Nursing Staff.* — Matron, 2 sisters, 4 staff nurses, including nurse in charge of the out-patient clinic, and 5 probationers. A sixth probationer is required during the holiday period. *Domestic Staff.*—I cook, 1 laundress, and 8 maids. *Outdoor Staff.*—1 gardener, 1 fireman, and 1 assistant gardener, who, in view of his increasing senile infirmity, is maintained in employment on short hours and reduced wages.

The out-patient clinic for artificial sunlight treatment has been continued during the year, and a detailed summary of the treatment undertaken is appended in another section of the report.

ADMISSION AND DISCHARGES.

Number of patients in residence at 1/1/29,			51
,, ,, admitted during year,			117
,, ,, discharged ,, ,,		99	123
,, ,, died ,, ,,		24	
,, ,, in residence at 31/12/29,			45

PLACE OF RESIDENCE.—Of the total cases discharged, 122 resided in the District of the Middle Ward, the place of residence according to the parish being as follows:—

Avondale,	0	Dalserf,	6
East Kilbride,	4	Dalziel,	5
Blantyre,	7	Hamilton,	4
Bothwell,	46	New Monkland,	6
Cambuslang,	13	Old Monkland,	14
Cambusnethan,	10	Shotts,	7

The remaining case was admitted from the Upper Ward.

AGE AND SEX.—In the following table the patients are classified according to their age, group, sex, and type of disease diagnosed:—

Age Group	Sex		Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis	Tuberculised	Non-Tuberculous	Totals
	M.	F.					
Pre-School, - - - 5 years, -	6	6	0	7	2	3	12
School, - - 10 ,, -	2	4	0	1	0	5	6
15 ,, -	6	3	3	1	2	3	9
Adolescent, - - 20 ,, -	13	6	12	2	3	2	19
25 ,, -	7	10	13	2	0	2	17
30 ,, -	10	5	11	2	0	2	15
Early Maturity, - 35 ,, -	7	2	7	1	0	1	9
40 ,, -	9	4	12	1	0	0	13
45 ,, -	3	1	3	0	0	1	4
Late Maturity, - 45+ ,, -	15	4	10	4	0	5	19
	78	45	71	21	7	24	123
	123		123				

Duration of Residence.—

	Residence in Days		
	Maximum	Minimum	Average
Pulmonary Tuberculosis, ...	1,173	1	141
Non-Pulmonary Tuberculosis, ...	264	3	78
Tuberculised, ...	143	22	87
Non-Tuberculous, ...	434	2	87

Transfers to other Institutions. — After observation, or at the end of their period of sanatorium treatment, 19 patients were transferred to other institutions, as follows:—

Hairmyres Colony, - - - - -	16
Motherwell Hospital, - - - - -	1
Stonehouse Hospital, - - - - -	1
Calderbank House, - - - - -	1

Pulmonary Tuberculosis.

71 Cases.

Classified according to their condition on admission, 7 cases were placed in Group I of the modified Turban-Gerhardt classification; 7 in Group II; and 57 in Group III. As a matter of interest and experiment, these groups have been further sub-divided according to the system of classification formulated by Professor S. Lyle Cummins, of the Welsh National School of Medicine, and published in the "British Journal of Tuberculosis," April, 1924, Vol. XVIII, No. 2. This system combines the modified Turban-Gerhardt system used in former years and Inman's practical division of cases in terms of their individual balance between infection and resistance, using the temperature as an index to auto-inoculation. It answers three fundamental questions about each case. These questions are as follows: — (1) Is the disease an "acute initial" or a "chronic recrudescent" stage? (2) What is the anatomical extent of the disease? (3) What is the state of balance between infection and resistance? The advantage of the method is that by means of a simple formula of three elements it is possible to obtain a fairly satisfactory visualisation of the state of the patient at any given time.

The scheme in diagram is as follows:—

Acute Initial Group.

A

A1.			A2.			A3.		
A1a,	A1b,	A1c,	A2a,	A2b,	A2c,	A3a,	A3b,	A3c.

Chronic and Recrudescent Group.

C

C1.			C2.			C3.		
C1a,	C1b,	C1c,	C2a,	C2b,	C2c,	C3a,	C3b,	C3c.

The figures 1, 2, and 3 represent increasing degrees of pulmonary involvement, while the small letters a, b, and c indicate the constitutional balance. A case of moderately-advanced disease, with a history of hæmoptysis three years ago, with no fever at rest, but a rise to 101°F. on exercise, would be C2b. If the spit is positive and any serious complication exists, the case would be formulated as C2b, spit positive, laryngitis.

Classification on Admission according to above Scheme.

A1a,	A1b,	A1c,	A2a,	A2b,	A2c,	A3a,	A3b,	A3c.
1	—	3	2	1	3	21	5	4
C1a,	C1b,	C1c,	C2a,	C2b,	C2c,	C3a,	C3b,	C3c.
1	—	2	—	1	—	9	10	8

It will be seen by a rapid analysis of this table that the great majority of patients admitted to the Sanatorium are either far advanced initial cases or far advanced chronic or recrudescent cases. The latter type of case is common in every sanatorium which is also a tuberculosis hospital, and their relative frequency is easily understood. They include the moribund and the spit-positive chronics, whose segregation in hospital is the essential recommendation of a sound public health scheme of anti-tuberculosis.

On the other hand, the preponderance of advanced initial cases is disappointing. If the full reward of residence in a sanatorium is to be obtained, then patients must be admitted at a stage in the disease which is much earlier than far-advanced involvement of the lungs. The A3a sub-division, *i.e.*, the far-advanced febrile cases of the acute initial group, of whom there are 21, represents the most formidable type of "galloping consumption," and offers little hope of avoiding inevitable and early death. Of these 21 cases, 8 actually died in hospital, while 4 others were taken home to die within a few weeks of discharge. Even the optimum recovery in the A3a case can only be classified as A3c, or later C3c, and this type of case is rarely if ever employable, are usually persistently spit-positive, dangerous sources of infection, and spend the remainder of their restricted expectation of life "in and out" the sanatoria. Herein lies the explanation of the hopelessness of sanatorium treatment, and is the answer to the caustic criticism one hears frequently of its results. The remedy is earlier diagnosis and earlier notification.

The greater burden of responsibility for failure in early diagnosis lies with the patient, and it has become evident that it is a mistake to wait for the patient to present himself for treatment. Their condition then is usually not one of early disease, but of gross disturbance, following prolonged invasion. A systematic hunt must be instituted for tuberculosis in its earliest manifestation. It is now recognised that for the most part tuberculous disease in young adult life is to be referred ultimately to initial infection in childhood. Consequently the hunt for early cases, to be really systematic, should begin in childhood, when the fact of infection can be registered. "It is not possible to predict certainly in which of the infected or tuberculised individuals the tuberculous infection will proceed to harvest—that is to say, in whom the tuberculous infection will yield clinical evidence of its presence—still it seems simple prudence, based on sound science, that the fact of infection should be registered" (Sir R. Philip). Once the parents know that their child is infected and realise its significance, then his environment and illnesses throughout pupillarity will be interpreted in the light of that knowledge, and the earliest buddings of tuberculous disease will not fail to be detected, either by the family practitioner or the tuberculosis dispensaries, or by co-operation of both.

The following table is again included as interesting and is better appreciated in the light of the foregoing figures of classification :—

Patients admitted with a persistently positive spit, - -	30
(1) Patients discharged with spit positive alternately with spit negative, - - - - - -	3
(2) Patients discharged with a persistently negative spit,	1
(3) Patients discharged with a persistently positive spit,	26

In regard to (3), it may be recorded that, in this case, the result of clinical examination is closely correlated with the spit results. This case may be regarded as a true "arrest." It was classified on admission as C3b spit positive, T.B. knee.

The number of deaths is again proportionately high—higher than the previous year. In a total of 71 cases, 17 deaths are recorded, and to this number must be added 12 others dismissed in a dying condition.

It is also of interest that the weight of this high mortality falls heaviest among the young adults. In the following table the age distribution of the fatal cases as against all cases is shown :—

Age Period,	–5	–10	–15	–20	–25	–30	–35	–40	–45	45+	Totals
All Cases,	—	—	3	10	15	11	7	12	3	10	71
Deaths in Sanatorium,	—	—	—	3	4	4	—	3	—	3	17
Deaths within a few weeks of discharge,	—	—	1	1	4	3	1	2	—	—	12
Total deaths,	—	—	1	4	8	7	1	5	—	3	29

Here it will be seen that between the ages of 15 and 30, *i.e.*, during adolescence and young adulthood, the mortality is high indeed, 19 in 36. The duration of illness among those 19 is represented thus :—

Duration of Disease.	Under 3 mths.	Under 6 mths.	Under 1 year.	Under 18 mths.	Under 2 yrs.	Under 3 yrs.	Under 4 yrs.	5 yrs and over.
Number of fatal cases,	—	2	8	4	3	—	—	2

These figures suggest that tuberculosis in the young adult inclines to a rapidly fatal issue. The classification of those 19 fatal cases on admission was as follows :—

A2a + 1, A2c + 1 ; A3a + 11 ; A3b + 1 ; C3a + 4 ; C3c + 1.

Pulmonary Tuberculosis in Children under 15 (3 Cases).—Two girls, aged 12, suffered from the usual adult type of parenchymatous disease with persistent spit positive. One was classified on admission the previous year as A3a +. The other as A2c +. The former after a brief improvement in general condition ultimately with the onset of cavitation deteriorated rapidly and was taken home in a moribund state and died soon after. The latter, equally advanced, but afebrile at rest, gradually improved and was transferred after 124 days, treatment to Hairmyres in a state of quiescence.

The third case, also a girl, aged 13, was classified C1c negative on admission. The grouping as " chronic recurrent " was determined by history and scar evidence of previous T.B. glands in neck, and the diagnosis was supported by the weight of evidence of previous and family history, clinical symptoms and signs. After 90 days' treatment, her general condition improved, and, with no extension of parenchymatous invasion, she was transferred to Hairmyres.

Spit Negative Pulmonary Tuberculosis (19 Cases).—This number includes the girl mentioned above, two adults, C2b and C3a, with no spit, and two others in whose cases the diagnosis was not established, but whose names were retained on the pulmonary list for further observation.

Two middle-aged adult males, A1a and A1c, had very definite tuberculous pleurisy, but recovered well without manifesting any evidence of active parenchymatous spread.

In one other case, A3b, bacilli were never detected in the spit, but the guinea-pig test was positive.

The remaining eleven cases either conform to the Trudeau criteria of diagnosis, or are old known positives whose local condition is quiescent. Two of these, males of 62 and 71 years respectively, died while in residence.

Non-Pulmonary Tuberculosis.

(21 Cases.)

Tuberculosis of Bones and Joints.—Seven cases grouped as follows:—Hip joint, 3; spine, 3; sternum, 1.

A man, æt. 36, with hip-joint disease, ischio-rectal abscess, rectal fistula and cystitis, was admitted from Motherwell Hospital suffering intense agony and obviously beyond any hope of recovery. He had been on three occasions in Glasgow Royal Infirmary, but repeated surgical treatment had failed to check the gradual extension of the disease and involvement of pelvic organs. He died after 50 days.

The other 2 hip-joint cases were old established cases in whom a recurrence of discharge from sinuses necessitated treatment. Both were discharged with healed scars and their general condition restored.

The three spinal cases were young adult males — one, old established, with extreme kyphotic deformity, and open granulating sinus in left thigh, in whom the development of psoas abscess formation in right groin necessitated surgical treatment in Motherwell Hospital; the other two, early, with no deformity, but with lumbar abscess, were later admitted to Dalserf Hospital.

The sternum was the site of tuberculous caries in an elderly male. He had multiple scars of previous disease about the neck, chest, and arms, and his present condition had persisted, in spite of radical surgical treatment in Motherwell Hospital, for over two years. An abscess cavity behind the sternum developed in spite of a freely open sinus and added to the toxæmia. His general condition gradually deteriorated and he ultimately went home, where he died some weeks later.

Tuberculosis of Lymphatic Glands (3 Cases). — All these were young children with the fibro-caseous type disease in the cervical glands with sinuses. One was taken home by parents after 10 days, but the other two received 66 and 90 days' treatment respectively, and were discharged with diminution of glands and healed scars.

Abdominal Tuberculosis (3 adults and 5 children).—Two of the adults were taken home by relatives after 28 and 5 days' residence, and no amelioration of symptoms or fever is recorded in either.

The third adult, a middle-aged female, was admitted in a condition of extreme cachexia with œdema, intermittent fever, rapid pulse, acute tenderness of abdomen, without actual tumidity, and persistent diarrhœa with greyish yellow watery stools. Nursing and hygienic treatment soon relieved the extreme discomfort, but failed to check the progressive asthenia, and her death occurred after 67 days' residence.

In the case of the children, the signs of the disease are summarised thus: — Tuberculin skin tests — positive, 4; fever, 3; tumidity, 4; prominent veins, 2; resistance, 2; plastic masses, 3; free fluid, 1; mesenteric glands, 1.

One case, a girl æt. 3 years, had a history of acute diarrhœa followed by pneumonia, 8 months prior to admission. Six months later diarrhœa occurred, and the abdomen became distended. On admission the girl was obviously very ill, with fever, markedly distended tender and resistant abdomen, with prominent veins coursing upwards over abdominal and chest walls, and large plastic masses palpable about the level of the umbilicus. A sudden drop in febrile temperature foreshadowed death which took place after 10 days. It is of interest to note in this case that the Von Pirquet and Moro's tests were only faintly positive five days before death.

The second case, a girl æt. 4, had a history of being delicate since birth with frequently recurring attacks of sickness and diarrhœa. She was quite well nourished on admission with an occasional afternoon temperature of 99-100°F. The abdomen was definitely distended and tender with a palpable mass in the right side. Very indefinite reactions to Moro's and Von Pirquet tests were followed by the sub-

cutaneous injection of ·5 c.c. of 1/100 O.T. The local reaction to this test was very severe, with sharp though transient fever, 101°F. within 24 hours, with malaise, sickness, and vomiting, indicated a sensitivity in keeping with the extent of physical signs. No activation of the local disease in the abdomen was noted, and the progressive improvement in general health undisturbed. She was transferred after 163 days to Calderbank Home for removal of enlarged tonsils.

The third case, a girl æt. 4 years, also suffered from the plastic type of disease. Amelioration of local symptoms and improvement in general health were being recorded at home prior to admission when the case seemed to be quite quiescent. The adhesion mass was the only abnormality noted in abdomen, and the skin tests were positive. Sanatorium treatment was justified by the acceleration in general improvement.

The fourth case, a child under 2 years, was admitted directly from the dispensary with acute distension of abdomen and ascites, and some evidence of meningitis. The diagnosis was not in doubt, but the child remained in residence only long enough to be disinfected. She died some days after being taken home, and death was certified as due to abdominal tuberculosis.

The fifth child, æt. 6 years, had a slightly distended abdomen, with small mesenteric glands palpable. The diagnosis was supported by positive skin tests and subacute pyrexia persisting for seven weeks after admission. Recovery in this case was excellent, and he was discharged fit for school.

Tuberculosis of Genito-Urinary Tract (2 Cases).—One in whom the disease was confined to the kidneys and disability slight; the other, an old man, admitted with advanced disease of genital and urinary viscera, in a condition of extreme discomfort and physical and mental exhaustion. He survived only six days.

Tuberculous Subcutaneous Abscesses.—One boy, æt. 14, who had a history of recurring chronic abscesses for two years, with gradual deterioration of his general health. On admission he had multiple healed scars and sinuses, with scanty discharge and protruding unhealthy granulations, and one abscess in the posterior fold of the right axilla, typical of the others and apparently confined

to the areolar tissue. Further abscess formation occurred soon after admission, but gradual diminution in discharge and healing of sinuses, with consequent diminution in auto-toxæmia, preceded a marked improvement in general health. He was transferred to Hairmyres after 217 days' treatment, and at the date of writing is again home, and working daily in steelworks, without any disability or complaint.

Tuberculised Group.

(7 Cases.)

This classification is reserved for those children in whom no diagnostic localising signs were detected, but who responded in varying degree to tuberculin skin and subcutaneous tests.

Included in this number are three young adolescent males—16, 17, and 18 years respectively. Two of these, admitted following influenza, were definite family contacts of spit-positive patients, and in whom the injection of ·5 c.c. of Koch's old tuberculin produced a marked local and general reaction. While no justification could be established for a diagnosis of active pulmonary disease, this sensitivity could not be disregarded. The third case reacted also with marked sensitivity to tuberculin. He had been in County sanatoria on three occasions previously, and was readmitted to Shotts, following a breakdown in general health. While the X-ray was suspicious here, there were no symptoms indicating pulmonary involvement, and he quickly recovered normal health and vigour. All three were transferred to Hairmyres.

Of the four children in this group, three had pulmonary symptoms and one general symptoms. In one case the father and in another the mother had died, one and two years previously, of spit-positive pulmonary tuberculosis. The result of treatment in each was very satisfactory.

These patients remain under domiciliary and dispensary supervision, and a reasonable hope is entertained that later manifestations of activity and spread of the initial focus are recognised in its early stages, and the victim brought under sanatorium treatment without delay.

Non-Tuberculous Diseases.

(24 Cases.)

The following table shows the diagnosis prior to admission and the established diagnosis on discharge:—

Admitted as Pulmonary Tuberculosis		Admitted as Abdominal Tuberculosis		
Adult	Child	Adult	Child	Established Diagnosis.
4	—	—	—	Pulmonary Fibrosis.
2	—	—	—	Bronchiectasis.
1	—	—	—	Carcinoma of Mediastinum.
1	—	—	—	Rheumatoid Arthritis.
1	2	—	—	Bronchitis.
1	1	—	—	Debility following Influenza.
—	1	—	—	Debility following Pneumonia.
—	2	—	—	General Debility.
1	—	—	—	Debility with Scoliosis and chronic basal congestion.
1	—	—	—	Neurasthenia.
1	—	—	—	Anæmia.
—	1	—	—	Mental Deficiency.
—	1	—	—	No apparent disease.
—	—	—	2	Malnutrition.
—	—	—	1	Rickets.

Of the 11 children detailed above, 8 were retained until the local symptoms had abated and the general welfare restored. 3 others were taken home after 88, 19, and 26 days, before the maximum improvement could be recorded.

The patient with carcinoma of the mediastinum died after 68 days. One of those diagnosed pulmonary fibrosis, a prematurely-aged man of 67, died after 59 days. The two cases of bronchiectasis shown represent one young adult who, after a period of 18 months' residence, improved sufficiently to justify his transfer to Hairmyres. He had a huge cavity at the right base, and expectorated huge amounts of typical sputum. On leave home prior to transfer, his general health suddenly relapsed, and he was readmitted and died within 24 hours.

The remaining adult cases had varying lengths of treatment from 6 to 152 days. All but one, whose residence is the shortest period of 6 days, and who went home of own accord, were discharged improved.

Artificial Sunlight Treatment.

Out-Patient Clinic.

The clinic equipment and staff have remained as at its installation in 1927. The method of treatment by determining the erythema dose and increasing the exposures at subsequent attendances by graduated dose has been continued. It will be readily admitted that there is no single method of ultra-violet irradiation equally effective for every type of case, and it is not claimed for the method outlined here that it has given the best or uniformly good results, but it has been adopted of necessity where the daily routine treatment is not under the guidance and observation of the medical officer.

During the year under review there has been a falling off in the number of patients treated. This is accounted for by greater discrimination having been shown in selecting patients in the neighbouring dispensaries and centres—discrimination in the actual diseases likely to benefit by the treatment and in the patients or parents whose co-operation could be reasonably expected. Some restriction of this nature was imperative, in the light of previous experience of the treatment and facilities of the accommodation at our disposal. The inadequacy of the latter was noted in the previous report, and during the year developments in the distribution of electricity through the district has made it possible to bring the original proposal to instal the clinic in the Health Institute within early realisation.

In reviewing the work of the clinic during the year, one result of this restricted selection of cases is seen in the better results of those conditions treated and the smaller percentage of patients who discontinued the treatment. The paucity of numbers again forbids exact conclusions as to the effect of ultra-violet irradiation in any particular disease; nevertheless, the tabulated results indicate conclusions which warrant its use.

The following table shows the number of patients dealt with and the total treatment given under Tuberculosis and Maternity and Child Welfare Schemes :—

	Number of Patients commencing treatment.	Total Number of Irradiations.	Total Irradiations (in minutes).	
			General.	Local.
Tuberculosis Scheme,	47	1,535	31,161	13,594
Maternity and Child Welfare Scheme, -	24	379	5,424	11
Totals, -	71	1,914	36,585	13,505
			632 hours.	

Diseases Dealt With.—It will be convenient to consider these under the headings "Tuberculosis Scheme" and "Maternity and Child Welfare Scheme."

Patients under the Tuberculosis Scheme (47 cases). — Total attendances, 1,535.

The following table shows the types of diseases dealt with and the progress made under treatment:—

Diseases	Number of Cases commencing treatment	Treatment Completed.					Treatment discontinued.	Continuing treatment.
		Total	Arrested	Imp.	I. S. Q.	Worse		
T.B. Adenitis, with sinus, -	15	9	9	—	—	—	2	4
T.B. Enlarged Glands, - -	12	9	5	—	2	2*	—	3
T.B. of Skin, - - -	8	2	2	—	—	—	1	5
T.B. of Bones and Joints, -	1	1	—	—	—	1†	—	—
T.B. Teno-synovitis, - -	2	2	2	—	—	—	—	—
Psoriasis, - - - -	1	1	—	1	—	—	—	—
Alopecia, - - - -	1	1	—	1	—	—	—	—
Lupus Erythematosus, - -	1	1	—	—	1	—	—	—
Rodent Ulcer, - - -	1	—	—	—	—	—	1	—
Eczema, - - - -	1	1	—	1	—	—	—	—
General Debility with Skin Disease, - - -	1	1	—	1	—	—	—	—
General Debility following Whooping-cough, - -	1	1	—	1	—	—	—	—
General Debility with Anorexia,	1	1	—	—	1	—	—	—
General Debility following Rickets, - - - -	1	—	—	—	—	—	—	1

*(1) A girl, æt 9, with a hard discrete gland at the angle of the right mandible, and a neighbouring scar of a gland abscess 4 years previously. After seven irradiations abscess formation developed in the enlarged gland necessitating incision by own doctor, who discouraged further treatment.

*(2) A boy, æt. 8, with a hard freely movable glandular swelling in the right submaxillary region. During the course of treatment in this case the enlarged gland underwent central caseation, but remained encapsulated, and the parents were advised to consider enucleation of the gland before the skin became involved. The boy was ultimately admitted to Stonehouse Hospital for this purpose.

†(3) A boy, æt. 5, who had recently been discharged from Stonehouse Hospital after 2 years' treatment there for spinal caries of the upper dorsal vertebræ. While the local disease appeared to be quiescent his general condition was anæmic and debilitated, and ultra-

violet treatment was commenced in the hope of restoring his vitality. He received 16 graduated general exposures, and was then found to have increased in weight, but appeared to be walking less steadily than before, and less inclined to walk without assistance. The spinal deformity also appeared to have increased, and the vertebræ involved to be more tender. An X-ray photograph suggested activity in the spinal focus with abscess formation. Treatment was discontinued and the parents advised to consider the boy's readmission to Stonehouse.

T.B. Adenitis with Sinus (15 cases). — The maximum result is recorded in all the cases who completed the treatment. While the degree and severity, and the duration of treatment, varied, the result recorded is the same in all—generally healed scars and glands subsided. There is no doubt that healing processes here are accelerated by ultra-violet treatment and are less prone to relapse.

T.B. Enlarged Glands (12 cases). — This group includes those cases which at time of first coming under observation are discrete with no evidence of caseation and all those definitely hyperplastic in type. In some of the discrete but fibro-caseous types, the softening process is accelerated by lamp treatment, namely, the two cases recorded immediately under the table. On the other hand, that these are exceptional is a tentative conclusion which would appear to be indicated by the results recorded this year, and in previous years. Five, or 55 per cent., of cases are recorded as arrested, *i.e.*, glands subsided at completion of treatment.

T.B. of Skin (8 cases).—It is generally admitted that this type of tuberculosis is effectively treated by ultra-violet radiation. Two cases, one, lupus vulgaris over a limited area of upper lip, the other a superficial tuberculous ulcer on the chest wall, are recorded as disease arrested—healed scars, while all five continuing treatment at the end of the year are benefited in varying degrees. The treatment is tedious, but with the co-operation of the patient, progressive healing can be confidently expected.

Maternity and Child Welfare.

24 Cases. Total Attendances, 379.

The following table shows the types of diseases in children and the progress made under treatment. No mothers were recommended for treatment during the year. Debilitated mothers generally under our observation are disinclined for sun baths, and few are able to leave their homes and children to undergo a course of treatment sufficiently intensive to justify them commencing it.

Diseases	Total Cases commencing treatment	Treatment Completed					Treatment Discontinued	Continuing Treatment
		Total	Much Imp.	Imp.	I. S. Q.	Worse		
Rickets,	10	7	1	3	4	—	2	—
Malnutrition,	4	2	2	—	—	—	2	—
Infantile Paralysis,	1	1	—	—	1	—	—	—
General Debility of Intestinal Origin,	2	2	1	1	—	—	1	—
Debility following Pneumonia,	1	1	—	1	—	—	—	—
Debility following Whooping-cough,	1	1	—	1	—	—	—	—
Debility with Anorexia,	1	1	—	1	—	—	—	—
Debility with Marasmus,	1	—	—	—	—	—	1	—
Debility with Bronchitis,	1	1	—	—	1	—	—	—
Eczema,	1	1	1	—	—	—	—	—
Seborrhoeic Dermatitis,	1	1	—	—	1	—	—	—

Rickets (11 cases). — Treatment completed in 7. Eight of all cases commencing treatment were diagnosed on symptoms, while in two, osseous deformity was present and associated with symptoms of deficiency. In none was the administration of cod-liver oil withheld to reveal specific anti-rachitic properties in ultra-violet rays.

Definite improvement is recorded in 4, or 57 per cent. of cases, and the improvement generally consists in a general invigoration, increase of weight, diminution of troublesome symptoms of head-sweating, and alimentary disorders. No increase or development of osseous deformity was noted in any during treatment.

Of the four cases where the result is recorded as I.S.Q., two were admitted to Calderbank Home after three treatments. The remaining two received 18 and 30 treatments respectively, without showing the least improvement, and both were admitted to Calderbank, where the treatment could be combined with the hygienic and dietetic treatment which was so conspicuously deficient in their own homes.

Malnutrition (4 cases).—Treatment completed in 2. These undernourished babies or toddlers respond to ultra-violet rays in much the same way as the rickety children. It is admitted that during the course of treatment the mother is constantly under the observation and guidance of an enthusiastic nurse, and probably is more attentive to the needs and feeding of her child, and on that account the exact effect of the sun bath may be difficult to assess. The net result in most cases, however, who persist with the treatment, is a brighter, more contented and more vigorous child, and justifies some belief in the efficiency of the treatment.

Special Examinations and Treatment.

Dental Treatment.—Mr. Smith, L.D.S., made 4 visits to the Sanatorium during the year. Patients treated number 20; extractions, 72.

X-Ray Examinations.—Of the patients discharged during the year, 43 were X-rayed at the County Hospital, Motherwell, the examinations being necessary for diagnostic reasons.

Ear, Nose, and Throat Clinic.—Two examinations were made by Dr. Adam at Motherwell Hospital Clinic. One was in the case of an elderly man with mediastinal tumour, and the other, a young man with lupus of larynx. The latter has also undergone thermo-cautery.

In conclusion, grateful recognition is made of the services of local ministers and R.C. clergy throughout the year, and of the frequent concert and band entertainments to patients voluntarily provided by local parties.

COUNTY ORTHOPÆDIC HOSPITAL, STONEHOUSE.

Physician-Superintendent—Alexander Smith, M.B., Ch.B.
Visiting Physician—Alexander H. M'Lean, M.B., Ch.B.
Matron—Miss A. Shore.

The report follows much the same lines as in previous years. It has been thought unnecessary to make many innovations, though it must be remembered that for some time the work was interrupted owing to the death of Dr. Sutherland.

ADMINISTRATION.

Buildings and Grounds.—No drastic alterations have been made during the year in the buildings, which as formerly have been kept in repair by the Works Department. A garage has been built by that department for the housing of the Medical Superintendent's car. This has proved a great boon, as it enables him to visit Dalserf Hospital whenever necessary and at greater convenience.

The New Treatment Block is now fully utilised, and its accommodation has not proved more than is necessary for the indoor operative and splint work and for the large volume of outdoor work performed.

The grounds have been steadily improving in appearance, and the roads within the hospital are in fairly good condition.

Staff.—The *Medical Staff*, as before, consists of a resident superintendent and a visiting physician, whose chief duties are the administration of anæsthetics. The work, as has been said, suffered some dislocation during the first part of the year owing to the sudden death of Dr. Sutherland in March. The present Resident Superintendent took up duties on 6th July, and, during the vacant period, Dr. Alexander M'Lean, Jun., carried on the work as interim medical officer.

The visiting dentist continues to attend the patients whenever his services are necessary.

The *Nursing Staff*, consisting of a matron, 5 trained sisters, and 16 probationers, has been unchanged. *Clerical Staff.* — 1 clerkess. *Teaching Staff.*—1 full-time (non-resident) female teacher. *Domestic Staff.*—1 cook, 1 laundrymaid, and 13 maids.

Emphatic reference has been made in previous reports to the unhygienic and unsatisfactory state of the accommodation for both nurses and maids in respect to overcrowded sleeping quarters and lack of facilities for study and recreation, and this matter need

not be laboured further, since we now have the hope that, under the reorganisation of the Health Services soon to come into operation, this will be finally rectified. The two houses in the village are still occupied and require daily visits from the matron.

Outdoor Staff.—1 engineer, 1 fireman, 2 gardeners, and 1 handyman. This makes an addition of one to the staff. The handyman appointed during the year acts as gardener during the summer and as fireman during the winter months.

INDOOR PATIENTS.

60 patients were admitted during the year and 66 dismissed. As will be noted in Table I, their place of residence, with four exceptions, was in the Middle Ward of Lanarkshire.

TABLE I.

Avondale, - -	3	Dalziel, - - -	3
Blantyre, - -	7	New Monkland,	1
Bothwell, - -	11	Old Monkland, -	4
Cambuslang, - -	6	Shotts, - -	7
Cambusnethan, -	4	Stonehouse, - -	1
Dalserf, - - -	15	——	—
			—
		Total, - -	62

The remaining 4 cases were admitted from Burgh of Hamilton, 2; Motherwell, 1; Upper Ward, 1, - - - 4

Total, - - 66

TABLE II.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age—Groups.	Tuberculous.	Non-Tuberculous.
– 5	9	10	19	Pre-School,	9	10
–10	8	7	15	School Age,	12	3
–15	4	4	8		8	—
–20	5	5	10	Adolescent,	7	3
– 25	6	2	8		7	1
–30	1	1	2	Early Maturity,	2	—
–35	—	1	1		1	—
–40	—	1	1		1	—
– 45	—	1	1		1	—
–50	—	1	1	Late Maturity,	1	—
–55	—	—	—		—	—
–60	—	—	—		—	—
–65	—	—	—		—	—
–70	—	—	—		—	—
	33	33	66		49	17

NON-TUBERCULOUS DISEASE.

17 patients were found to be suffering from non-tuberculous disease, and details of these are as follows:—

TABLE III.

No. of Case.	Sex.	Age in Years.	Disease.	Treatment.	Result.	Residence in Days.	Remarks.
1	M.	21	Mixed-celled sarcoma lower end femur.	Amputation.	Well.	204	Still fit and well. No sign of secondaries.
2	M.	15	Sarcoma of right femur—lower end.	Palliative.	Died.	85	Secondaries present on admission.
3	F.	2	Congenital dislocation left hip.	Reduction under chloroform and serial plasters.	Well.	718	Walking normally.
4	F.	15	Myositis ossificans traumatica left thigh.	Excision of ossified area.	Well.	104	—
5	M.	3	Perthes' disease left hip.	Extension and rest.	Well.	218	Walking normally.
6	M.	1	Old fracture left clavicle.	—	Impd.	107	—
7	F.	2	Rickets. No gross deformity.	Ultra-violet light and diet.	Well.	178	—
8	M.	6	Rickets. Genu valgum both knees.	Double supracondylar osteotomy and plaster.	Deformity Corrected.	138	—

9	F.	16	Old rickets—both tibiæ with anterior curves.	Cuneiform osteotomy and plaster.	Deformity Improved.	199	—
10	M.	$\frac{7}{12}$	Malnutrition.	Dietetic, &c.	Well.	153	—
11	F.	9	Infantile paralysis left leg.	Tendo Achillis lengthened Side irons.	Impd.	250	Able to walk.
12	F.	$1\frac{5}{12}$	Infantile paralysis. Left leg totally paralysed.	Rest, splintage, walking caliper.	Impd.	933	Able to walk.
13	F.	$1\frac{3}{12}$	Infantile paralysis left arm and left leg.	Plaster, splintage, &c.	Impd.	193	Leg completely recovered, arm partially.
14	F.	9	Infantile paralysis left leg.	Plaster, splintage, &c.	Impd.	250	Able to walk.
15	M.	$\frac{11}{12}$	Right oblique inguinal hernia.	Radical operation.	Well.	13	—
16	M.	$\frac{5}{12}$	Right oblique inguinal hernia.	Radical operation.	Well.	25	—
17	M.	$1\frac{5}{12}$	Undescended testicle and phimosis.	Trans-scrotal fixation of testicle. Circumcision.	Well.	44	—

The majority of these cases were of such a nature that they would inevitably find their way to an orthopædic hospital. Case No. 1 was sent in as tuberculosis of the knee, and clinically it appeared very like that condition. The diagnosis was rendered more difficult owing to the fact that there was an effusion into the joint. The patient had already been to a city hospital, and there was recommended for sanatorium treatment, a diagnosis of tuberculosis having been made. The radiological picture, however, was that of a tumour, and subsequent pathological examination confirmed the sarcomatous nature of the swelling. Amputation then became imperative. He has remained well since, and there are no signs of metastases.

Case No. 2 was found to have metastatic growths in the pelvis and in the lungs, although on admission the primary tumour was small. He was, therefore, inoperable. His radiograms were submitted to the radiologist of the Cancer Hospital for expert opinion regarding deep X-ray or radium therapy, but he considered the case unsuitable, so palliative measures alone could be adopted. These cases scarcely admit of dogmatic diagnosis before admission.

Case No. 4.—This patient was admitted as tuberculosis of the hip following a knock in the fields three weeks previously. She complained of tenderness, weakness, aching in the limb, and her hip-joint movements were limited. The X-ray examination was negative. Three weeks after admission bony elements were detected in the quadriceps. This is the usual course of such a case, ossified areas taking about six to twelve weeks to appear. The mass was excised entire after the radiograms showed a definitive size.

The other cases require little comment. Perthes' disease will usually be received in hospitals where tuberculosis of the hip-joint is treated. The treatment is of the same nature, but in Perthes' disease restoration to normal is more common and more easily obtained.

It may be said of the anterior poliomyelitis cases that surely they represent but a small minority of those needing treatment. Much can be done to correct deformity, but much more is possible in the way of prevention by adequate splintage, &c. Many patients suffering from the effects of infantile paralysis are never seen, probably because most practitioners have realised the hopelessness of expecting to get hospital accommodation for them.

NON-PULMONARY TUBERCULOSIS.

In 49 cases the diagnosis of tuberculosis was established, and in the following tabular form these are reviewed.

Spinal Disease (15 Cases).

(See Pages 272 and 273).

It will be observed that of the fifteen cases, eight were discharged with healed and consolidated lesions. One of these (Case 15), already had a healed lesion, and was merely admitted for observation and in order to have a cast made for a celluloid jacket. Two deaths occurred in hospital among the spinal cases, and one was sent home at the parents' request in a dying condition. All three had amyloid disease resulting from long continued discharge from sinuses. This merely illustrates the well-known fact that in spinal caries, if a fatal issue is to be avoided, everything must be done to prevent sinus formation and the almost inevitable sequelæ of secondary pyogenic invasion and amyloid degeneration. Of the remaining four patients two are continuing treatment here, having been re-admitted after diphtheria, one is continuing treatment at Dalserf Hospital, while one was taken to England by her parents.

Hip Joint (7 Cases).

(See Page 274).

Three of the seven cases made good recoveries, two of them with return of mobility, and restoration of the radiological picture almost to normal, while the third (Case 18) is remarkable for the fact that eventually she did well though repeatedly during her long period of treatment she seemed likely to die. Of the two patients who died, one had extremely aggressive disease which produced early formation of sinuses and waxy degeneration, but the other, a child, died from broncho-pneumonia superimposed on congenital heart disease.

Knee Joint (7 Cases).

(See Page 275).

The results in this series of knee-joint cases were very good, mainly because the patients, with one exception, were children. It is of interest to note that six were healed, and all of these had some restoration of functional mobility in the joint, three of them almost to normal. The patient who died was in a very grave condition on admission, and suffered from a profound degree of toxæmia.

TABLE IV.—Spinal Disease (15 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	4th-12th dorsal c̄ marked kyphosis and paresis.	M.	14	12	Recumbency. Plaster.	1	—	—	—	—	775	Kyphosis unchanged. Paresis gone.
2	Almost entire dorsal region c̄ paraplegia and incontinence. Complication—T.B. otitis media.	F.	8	7	Recumbency.	—	—	1	—	—	539	No incontinence now. Paralysis still present.
3	5th and 6th dorsal. Complication—T.B. carpus.	M.	18	1	Recumbency.	—	1	—	—	—	345	Transferred to Motherwell Hospital with diphtheria. Since re-admitted.
4	7th and 8th dorsal, slight kyphosis.	F.	3	$\frac{3}{12}$	Recumbency.	1	—	—	—	—	328	Kyphosis not noticeable.
5	Mid-dorsal with kyphosis, lumbar abscesses and sinuses, paresis of lower limbs.	M.	24	2	Recumbency.	1	—	—	—	—	770	Kyphosis as before,

6	Lower dorsal, slight kyphosis. Complication—T. B. dactylitis.	M.	4	$1\frac{8}{12}$	Recumbency.	—	—	1	—	—	12	Transferred to Dalserf Hospital.
7	8th-12th dorsal. Paresis.	F.	49	2	Recumbency. Celluloid Jacket.	1	—	—	—	—	735	Paresis cured. Very slight kyphosis.
8	10th and 11th dorsal c̄ lumbar abscesses.	M.	24	$2\frac{6}{12}$	Aspiration, &c.	—	—	—	—	1	1,586	Developed amyloid disease.
9	Lower dorsal c̄ kyphosis. Complication.—T.B. knee.	F.	3	1	Recumbency.	—	—	1	—	—	10	Transferred to Motherwell Hospital with diphtheria. Since re-admitted.
10	9th dorsal—4th lumbar c̄ abscesses.	M.	12	$\frac{3}{12}$	Aspiration, &c.	—	—	—	1	—	525	Developed sinuses and amyloid disease.
11	12th dorsal—1st lumbar c̄ slight kyphosis. Complication—axillary adenitis.	F.	42	1	Aspiration. Recumbency. Celluloid Jacket.	1	—	—	—	—	755	Kyphosis slighter.
12	Lower dorsal and lumbar, psoas sinuses.	F.	13	10	Aspiration, &c.	—	—	—	—	1	693	Amyloid disease.
13	Lumbar region c̄ lumbar abscess.	M.	11	$\frac{6}{12}$	Aspiration. Recumbency. Celluloid Jacket.	1	—	—	—	—	575	No kyphosis.
14	3rd and 4th lumbar, psoas abscess. Complication—cervical adenitis.	M.	22	2	Aspiration. Recumbency.	1	—	—	—	—	583	Very slight kyphosis.
15	Lumbar, slight kyphosis. Consolidated.	M.	22	$2\frac{6}{12}$	Celluloid Jacket.	1	—	—	—	—	25	—

TABLE V.

Hip Joint (7 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.		
16	Lt. Hip. Disease of Femur and Acetabulum.	F.	3	2	Extension, &c.,	—	—	—	—	1	35	—
17	Lt. Hip adducted and flexed. Femur and Acetabulum involved.	F.	3	1	Extension,	—	1	—	—	—	308	Transferred c̄ Diphtheria. Since readmitted.
18	Rt. Femur and Acetabulum diseased with gross destruction. External crural abscess.	F.	14	12	Extension. Aspiration. Osmoserin. Plaster. Celluloid.	1	—	—	—	—	2,898	Now in good position of abduction. Wearing celluloid splint.
19	Rt. Hip Chiefly Acetabulum diseased.	M.	9	1	Pyrford Abduction Frame.	1	—	—	—	—	583	Movements almost normal.
20	Rt. Hip Femur and Acetabulum diseased with partial dislocation. Abscesses and sinuses. Complication. Old Pleurisy.	M.	19	$\frac{6}{12}$	Aspiration. Osmoserin. Extension. Plaster.	—	—	—	—	1	1,004	Developed Amyloid Disease.
21	Rt. Hip. Femoral epiphysis, diseased.	M.	3	$\frac{3}{12}$	Extension.	1	—	—	—	—	524	Movement almost normal.
22	Femur and Acetabulum. No abscess.	M.	8	—	—	—	—	1	—	—	1	Transferred to Dalserf Hospital.

TABLE VI.

Knee Joint (7 Cases).

No. of Cases.	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.		
23	Lt. Knee. Synovial membrane and tibia affected. Flexion and subluxation deformity.	F.	3	2	Extension. Walking Caliper.	1	—	—	—	—	1,669	Movement limited.
24	Rt. Knee. Femoral epiphysis mainly. Flexion deformity.	F.	5	1	Extension. Plasters.	1	—	—	—	—	700	Movement only slightly limited. No deformity.
25	Lt. Knee. Synovia, tibia, and femur involved. Flexion deformity.	F.	5	2	Extension. Walking Caliper.	1	—	—	—	—	517	Movement normal. No deformity.
26	Lt. Knee. Femur and tibia involved. Swelling and flexion.	M.	6	3	Extension. Plaster. Walking Caliper.	1	—	—	—	—	604	Movement limited. No deformity.
27	Rt. Knee. Synovial Disease. Epiphysis rarefied.	M.	6	$\frac{4}{12}$	Extension. Plaster.	1	—	—	—	—	562	Movement slightly limited. No deformity.
28	Rt. Knee. Mainly synovial disease. Deformity.	M.	8	$\frac{4}{12}$	Plaster. Supracondylar osteotomy.	1	—	—	—	—	1,110	Movement limited. Deformity corrected.
29	Rt. Knee. Sinuses and sequestra. Disorganised joint.	M.	26	4	Excision of Joint.	—	—	—	—	1	92	—

TABLE VII.

Other Joints (5 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.		
30	Sacro-iliac joint with sinuses.	F.	34	2	Recumbency, &c	—	1	—	—	—	227	Transferred c̄ diphtheria. Since admitted again.
31	Right ankle c̄ sinuses.	F.	22	5	Syme's amputation.	1	—	—	—	—	354	Now able to walk with artificial foot.
32	Right ankle. Astragalus diseased	F.	35	4	Plaster, &c.	1	—	—	—	—	163	Able to walk. Some limitation of movement.
33	Left ankle. Astragalus.	M.	5	1	Splintage.	1	—	—	—	—	131	Able to walk well.
34	Left elbow. Humerus and ulna involved. No movement. Complications—healed dactylitis, frontal bone, radius.	M.	4	2	Bivalve splint.	1	—	—	—	—	218	Fixed in good position.

TABLE VIII.

Osseous Lesions (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.		
35	Ilium c̄ sinuses and sequestra.	M.	21	11	Removal of sequestra.	—	1	—	—	—	1,125	All sinuses healed but one. Transferred to Dalserf Hospital.
36	Tuberculous dactylitis right great toe.	F.	33	$\frac{2}{12}$	Rest. U.V. rays.	—	1	—	—	—	33	Transferred to Longriggend Sanatorium.
37	Os calcis with sinuses.	M.	10	$\frac{6}{12}$	General.	1	—	—	—	—	307	No deformity.

TABLE IX.

Multiple Tuberculosis (5 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.		
38	Multiple osseous lesions. Tuberculosis of eyeball.	F.	16	?	Excision of Eyeball.	—	1	—	—	—	16	Case admitted for operation. Eye socket healed.
39	Frontal bone, ear, cervical glands, fingers, elbow, fibula, &c.	F.	2	1	Ear. Paracentesis. U.V. Rays.	1	—	—	—	—	726	Lesions healed well. General condition good.
40	Sixteen lesions. Elbows, wrists, fingers, feet, toes, skin, &c.	F.	15	6	Syme's Amputation Right Foot. Scraping of Lupus. U.V. Rays.	1	—	—	—	—	3,033	All lesions well healed. This patient made a remarkable response to treatment.
41	Hip, knee, abdomen.	M.	17	2	Extension, &c.	—	—	—	—	1	18	Died from amyloid disease.
42	Rt. Hip with sinuses. Lt. knee. Rib with sinus.	M.	19	3	Aspiration. Incision.	—	1	—	—	—	883	Hip ankylosed. Knee well healed. Rib sinus dry.

Tuberculous Cervical Adenitis (7 Cases).

Cases No. 43-49.

These patients, six females and one male, varied in age from five to twent-one years. Only one patient did not have abscess formation, and in her case a complete dissection was possible. In two others, although caseation had occurred, complete excision was possible, because the capsules of the glands were still intact and sufficiently thick. The remaining four gave no opportunity for more than incision, &c. All these patients were retained until the scars were healed. After operation they began a course of combined ultra-violet light therapy, getting general light baths from the carbon-arc lamps, and local application from the mercury vapour arc.

It still appears that there is a considerable field for the operative treatment of tuberculous adenitis, despite the ultra-conservative views advanced in recent years. Ultra-violet light therapy alone does not cure all cases, and many need to have recourse to surgery after long periods of treatment. Where there is a localised glandular mass originating from an accessible focus like tonsils or teeth, operation seems to be as yet the most rational measure. When there are numerous masses, haphazard in distribution, suggesting, as Fraser says, "a blood-borne infection," light treatment though tedious, affords the best method of arresting the disease. When sinus formation and scrofuloderma are present ultra-violet radiation undoubtedly gives better and less puckered scars. It is important, of course, to search for and deal with the portal of entry, such as the teeth or the tonsils, no matter what method is adopted. Probably a combination of surgery and light therapy, each case being judged on its merits, should be advocated.

TABLE X.

Review of Past Cases of Articular and Osseous Tuberculosis (1924-1928).

Spine.

Site.	Number of Cases.	Arrested.	Improved.	I.S.Q.	Worse.	Died.
Cervical, - -	5	3	—	—	2	—
Upper Dorsal, -	12	10	1	1	—	—
Mid Dorsal, - -	20	13	1	4	—	2
Lower Dorsal, -	3	1	2	—	—	—
Dorso-Lumbar, -	15	8	3	2	—	2
Lumbar, - -	5	1	—	1	—	3
Sacral, - - -	1	1	—	—	—	—
Total, -	61	37	7	8	2	7

TABLE X (*continued*).

OSSEOUS SYSTEM.

Site.	Number of Cases.	Arrested.	Improved.	I.S.Q.	Worse.	Died
Cranium,	7	6	—	1	—	—
Sternum,	3	2	—	1	—	—
Ribs.	3	1	—	2	—	—
Femur,	2	1	—	1	—	—
Tibia,	1	1	—	—	—	—
Radius,	1	1	—	—	—	—
Bones of hand and foot,	10	9	1	—	—	—
Pelvic bones,	1	1	—	—	—	—
Total,	28	22	1	5	—	—

JOINTS.

Site.	Number of Cases.	Arrested.	Improved.	I.S.Q.	Worse.	Died.
Sacro-iliac,	1	—	1	—	—	—
Hip,	34	27	2	2	1	2
Knee,	37	32	2	1	1	1
Ankle,	19	16	—	—	1	2
Shoulder,	3	3	—	—	—	—
Elbow,	8	6	—	1	—	1
Wrist,	1	1	—	—	—	—
Total,	103	85	5	4	3	6

Recently, for another purpose, a review of bone and joint cases treated here during the five years 1924-1928 was made, and this is summarised in Table X. It was thought advisable to include it here, because, owing to the relatively small numbers of the different varieties of lesions encountered in one year, no very accurate deductions can be made from the figures. A quinquennial period gives sufficient numbers to enable the results obtained by modern orthopædic methods to be assessed. Furthermore, the table is a commentary on the valuable work of the late Medical Superintendent, who established and organised the modern treatment of non-pulmonary tuberculosis in the County.

It will be seen that, of the total of 61 cases of spinal caries, no less than 37, or roughly 60 per cent., were dismissed with disease arrested, while 78 per cent. of patients suffering from lesions in bones were dismissed well. Among the patients with joint tuberculosis the results were equally satisfactory, slightly more than 82 per cent. having healed lesions on dismissal. When it is borne in mind that comparatively few patients in the earlier years were admitted to hospital before the disease had advanced to an obvious degree, it will be appreciated that the results shown have made the elaborate treatment employed worth while.

Treatment.—Treatment has followed the prevailing mode of conservative orthopædics. The spine cases are immobilised on frames of various varieties in a position of slight hyper-extension as long as activity of the disease is present. The aim is not so much to reduce deformity by separating collapsed vertebræ, for this necessitates the laying down of much more new bone before consolidation is complete, as to produce such compensatory lordoses above and below the lesion that the resultant, when the patient is able to be up, is a fairly straight line. For hip cases two methods are in use, a weight extension by means of which flexion and adduction deformities can gradually be corrected, and the very valuable double abduction Pyrford frame.

When the lesion is clinically inactive as evidenced by disappearance of protective muscular spasm, and at the same time is seen to be healed as far as radiological appearances show, celluloid jackets are constructed for the spinal cases and either celluloid splints or caliper splints for the hip and knee cases.

Abscesses are treated by aspiration and subsequent injection of modifying fluids so as to preserve intact the superficial tissues and avoid secondary pyogenic infection.

Operative measures are, of course, still needed. Many of these are for the correction of deformity where this cannot be accomplished by appliances such as, for example, tenotomy and manipulation in hip-joint disease. Also, in some forms of tuberculosis of the knee excision of the joint provides the only method of securing a stable healed limb on which the patient can walk. Then there are the late cases where amputation becomes imperative if amyloid disease is to be avoided.

Operative Treatment.—A brief summary of the operations carried out on indoor patients during the year is appended :—

Disease.	Number of Cases.	Operation.	Remarks.
T.B. hip-joint.	4	Manipulation and plaster.	2 well; 2 improved but still under treatment.
T.B. Ilium c̄ sequestra.	1	Removal of sequestra.	Improved but still under treatment.
T B. Ilium c̄ abscess.	1	Incision.	Do.
T.B. knee-joint.	1	Excision of joint.	Subsequently died.
T.B. eyeball.	1	Excision.	Well.
T.B. cranial bones.	1	Removal of sequestrum.	Improved.
T.B. cervical adenitis.	5	Excision.	Well.
T.B. cervical adenitis c̄ abscesses.	3	Incision.	Well.
Osteomyelitis of tibia.	2	Removal of sequestra.	1 well; 1 improved but still under treatment.
Sarcoma of femur.	1	Amputation.	Well.
Myositis ossificans traumatica.	1	Excision of mass.	Well.
Rickets - anterior tibial curves.	1	Cuneiform osteotomy both legs.	Well.
Talipes equino varus.	1	Manipulation and plaster.	Improved.
Septic toe.	1	Incision and removal of nail.	Well.
Inguinal hernia.	2	Radical operation.	Well.
Phimosis and undescended testicle.	1	Circumcision and orchidopexy.	Well.

X-Ray Apparatus.—The apparatus has not been modified in any way. It is now quite out of date compared with most modern installations, and requires far too long exposures. Nevertheless, it remains an important factor in the diagnosis and control of treatment in

bone and joint tuberculosis. Serial radiograms are essential to estimate the progress of the cases and to indicate when healing has occurred. During the year, 587 examinations were made, 334 of these being indoor patients and 253 outdoor patients.

Artificial Light Therapy. — Two carbon-arc lamps and two mercury-vapour lamps are in use. Both indoor and outdoor treatment is carried out. There remains no doubt but that artificial light treatment is a valuable weapon in the armamentarium of those engaged in the combat with tuberculosis, but it must always be remembered that in bone and joint disease it is merely an adjuvant, and proper orthopædic treatment to ensure rest of the part comes first. Ambulant patients at outdoor clinics cannot obtain this adequate rest, nor can proper appliances be constructed save in specially equipped institutions.

Special Examinations and Treatment.

Dental Treatment. — The visiting dentist made 8 visits during the year, and treated 54 patients, as follows:—

Extractions, 67; fillings, 24; total extractions under chloroform, 7.

Ear, Nose, and Throat Specialist.—Eight cases were referred to the consulting laryngologist.

Consultations.—Pharyngitis, 1; otitis media, 1.

Operations—Nasal polypi, 2; septum-submucous resection, 2; turbinectomy, 2.

Education.—There were 51 patients of school age on the teacher's register during the year, 22 males and 29 females. Seventeen others outwith the school years also benefited by the instruction given. Apart from the educational value of the teaching, which is necessarily of an exacting character on the teacher, since the stages reached by the patients before admission are very diverse, it serves to keep the patients contented and preserves their minds from becoming apathetic from disuse. In addition to reading, writing, arithmetic, &c., sewing, knitting, crotchet, raffia work, basketry, shell-flower work, bead work, and paper work are taught.

Outdoor Department.

The work of the Outdoor Department may be classified conveniently as consultations, operations, radiological examinations, and ultra-violet therapy. In 1929, 972 new cases were attended. These patients as hitherto were derived from Welfare Centres, Tuberculosis Dispensaries, or recommended by practitioners of the Middle Ward.

Consultations.

A.—TUBERCULOUS DISEASE.

Abdominal,	5
Glandular,	19
Skin,	2
Bones and Joints—Spine, 6; Hip, 1; Knee, 5; Ankle, 3; Shoulder, 1; Wrist, 1; Elbow, 1; Others, 2,	20
Total,	46

B.—NON-TUBERCULOUS DISEASE.

Circulatory System.	Mitral Stenosis, 2; Aneurysm of Aorta, 1,	3
Pulmonary System.	Bronchitis, 3; Mediastinal Tumour, 1; Asthma, 1,	5
Digestive System.	Gastric Ulcer, 2; Appendicitis, 1,	3
Nervous System.	Infantile Paralysis, 7: Encephalitis Lethargica, 1; Hemiplegia, 2; Neurasthenia, 1,	11
Diseases of Special Organs.	Otosclerosis, 5; Nasal Polypi, 5; Enlarged Turbinates, 8; Chronic Tonsillitis and Adenoids, 152,	170
Bones and Joints.	Congenital Deformities, 11; Fractures, 7; Sprains, &c., 2; Synovitis, 3; Dislocation of Semi-lunar Cartilage, 3; Osteomyelitis, 2; Rheumatoid Arthritis, 4; Rickets, 4,	36
Skin.	Rodent Ulcer, 1; Warts, 1; Ringworm, 1; Eczema, 2; Alopecia, 4; Sycosis Barbae, 2,	11
Septic Diseases.	Cellulitis, 4; Abscesses, 2,	6
Miscellaneous.	Phimosis, 23; Hernia, 5; Hydrocele, 1; Renal Calculi, 3; Endometritis, 2; Salpingitis, 1; Exophthalmic Goitre, 1; Diabetes, 1; Fibrositis, 2; Dental Caries, 11,	50
	Total,	295

OPERATIONS.

System.	Disease.	No.	Result.	Operation.
Osseous.	Osteomyelitis of phalanx of finger.	3	Incision.	Well.
	Osteomyelitis of metatarsal.	1	Removal of sequestrum.	Well.
	Exostosis of metatarsal.	1	Removal of exostosis.	Well.
	T.B. dactylitis,	1	Aspiration.	Well.
Articular.	Synovitis of knee joint.	3	Aspiration.	Well.
	Prepatellar bursitis.	1	Excision of Bursa.	Well.
Glandular.	T.B. cervical adenitis.	7	Incision.	Well.
	T.B. cervical adenitis.	6	Aspiration.	4 well; 2 still under treatment.
	Septic cervical adenitis.	2	Incision.	Well.
Miscellaneous.	Chronic tonsillitis and adenoids.	178	Enucleating and curetting.	Well.
	Enlarged turbinates.	2	Turbinectomy.	Well.
	Nasal polypi.	3	Removal.	Well.
	Dental caries.	18	Extraction.	Well.
	Phimosis.	24	Circumcision.	Well.
	Ganglion of wrist.	1	Excision.	Well.
	Acute abscesses	2	Incision.	Well.
	Rodent ulcer.	1	Excision	Well.
	Hallux valgus	2	Excision.	Well.
	Sebaceous cyst (neck).	1	Excision.	Well.
	Papilloma (face).	1	Excision.	Well.
	Fibroma (back).	1	Excision.	Well.
	Spina bifida.	1	Aspiration.	Admitted for further treatment.
	Syndactly.	1	Separation.	Well.
	Meibomian cyst	1	Excision.	Well.

X-RAY EXAMINATIONS.

A.—TUBERCULOUS DISEASE.

Pulmonary Tuberculosis, ...	9
Hilus Tuberculosis, ...	6
Pleurisy, ...	2
Bones and Joints—Spine, 8; Hip, 5; Knee, 10; Ankle, 1; Wrist, 2; Elbow, 1; Other bones, 8, ...	35
Total, ...	52

B.—NON-TUBERCULOUS DISEASE.

Pulmonary System.	Normal, 7; Chronic Bronchitis, 3; Chronic Pulmonary Fibrosis, 6, ...	16
Circulatory System.	Mitral Stenosis, 2; Aneurysm, 3, . .	5
Digestive System.	Barium Meals. (Gastric Ulcer, 2; Duodenal Ulcer, 2; Normal, 1). Barium enema (Chronic Appendicitis, 1); Gallbladder. (Gallstones, 4; Normal, 7), . . .	17
Genito-Urinary System.	Renal Calculi, 4; Normal, 4, . . .	8
Injuries to Bones and Joints.	Normal, 46; Fractures, 54; Sprains, 12; Dislocations, 4, ...	116
Diseases of Bones and Joints.	Synovitis, 8; Osteomyelitis, 6; Rheumatoid Arthritis, 5; Sarcoma of Femur, 1; Perthes' Disease, 2; Schlatter's Disease, 1; Mastoid Disease, 2, ...	25
Deformities of Bones and Joints.	Congenital Dislocation, 1; Scoliosis, 3; Hallux Valgus, 2; Genu Varum, 3; Genu Valgum, 1, ...	10
Miscellaneous.	Teeth, &c., ...	4
	Total, ...	201

Ultra-violet Light Therapy.—70 patients attended for the first time for ultra-violet light Therapy; 3,490 revisits were paid, and 4,751 exposures were given.

Electrical Treatment.—4 patients received courses of electrical treatment for rheumatoid arthritis.

Miscellaneous and Dressings.—The remaining 42 cases attended for dressings, plasters, injections, &c.

Revisits.—In addition to the new cases, revisits were paid during the year for the undernoted purposes:—

(1) Operations, 59; (2) X-ray examinations, 76; (3) Consultations, 288; (4) Electrical treatment, 91; (5) Miscellaneous and dressings, 305.

Joseph R. Sutherland, B.Sc., M.B., Ch.B., D.P.H., Superintendent of the hospital since May, 1914, died on 25th March, 1929, in his 47th year. Endowed with a wide knowledge of his profession and a generous sympathy, he was consulted by many and refused none. To the community he rendered a life of service recognised by the esteem of all who knew him. The history of the Institution is a record of his work and enthusiasm: its prestige, a tribute to his ability and concentrated energy.

COUNTY HOSPITAL, DALSERF.

Visiting Medical Officer—Dr. Alexander Smith, M.B., Ch.B.

Matron—Miss M. Lamont.

Buildings.—The institution was used again for orthopædic cases of a type similar to those treated in Stonehouse Orthopædic Hospital. An endeavour was made to keep the more convalescent patients in Dalserf, but this was not always possible, because of urgent demands for beds for more advanced cases.

The former attendant's house was converted into a night nurse's bedroom, after having been thoroughly repaired and painted.

A slunge sink was fitted into the bathroom of the female ward. This was rendered necessary, because a larger proportion of patients than ever were confined to bed, and because there was a possibility, during the year, of the hospital being evacuated for the reception of smallpox, after the outbreak in Glasgow.

Staff.—The staff now consists of a matron, 3 probationer nurses, a cook, a maid, and a gardener. The additional probationer nurse was sanctioned in May, so that someone could always be on night duty.

Accommodation.—This has been unaltered, and consists of 5 cots, 6 male beds, and 5 female beds.

Patients.—26 patients (19 males and 7 females) were admitted during the year and 24 dismissed (17 males and 7 females).

Place of Residence.

Blantyre,	2	East Kilbride,	1
Bothwell,	5	New Monkland,	1
Cambuslang,	2	Old Monkland,	1
Cambusnethan,	2	Shotts,	6
Dalserf,	4		
		Total,	24

AGE AND SEX DISTRIBUTION.

Years.	Males.	Females.	Total.
– 5	4	2	6
– 10	5	3	8
– 15	2	1	3
– 20	4	1	5
– 25	1	—	1
– 30	1	—	1
Total,	17	7	24

DIAGNOSIS. — 6 patients were found to be suffering from non-tuberculous disease. The principal points concerning them are given in tabular form

All the others suffered from some form of tuberculosis. It will be noticed that many of them were transferred for further treatment to Stonehouse. This was because, in four instances, treatment of a more active nature than could be obtained in Dalserf was necessary. The other cases were transferred during the smallpox outbreak in Glasgow, so that, as far as possible, Dalserf Hospital would be kept available for any cases of that disease arising in the County.

Non-Tuberculous Disease.

No.	Sex.	Age.	Condition on Admission.	Treatment.	Result.	Residence in Days.	Remarks.
1	M.	$4\frac{6}{12}$	Rickets, ...	General,	Well	456	—
2	M.	$2\frac{6}{12}$	Perthes' Disease, ...	Extension,	Impd.	330	Trans. to Stonehouse.
3	M.	6	Perthes' Disease	Extension,	Well	790	Hip normal.
4	M.	15	Chr. Osteomyelitis of Femur, ...	Incision,	Well	326	—
5	M.	18	Chr. Osteomyelitis of Tibia, ...	—	I.S.Q.	1	Removed by parents.
6	F.	9	Double Talipes Equino Varus, ...	Plaster,	Impd.	44	Trans. to Stonehouse.

Tuberculous Disease.

No.	Sex.	Age.	Condition on Admission.	Treatment.	Result.	Residence in days.	Remarks
7	M.	5	Spine-Lower Dorsal. No abscess. Complication: T.B. Dactylitis,	Recumbency,	Impd.	99	Trans. to Stonehouse.
8	F.	$3\frac{6}{12}$	Spine-Mid Dorsal c̄ Paresis, ...	,,	,,	936	,,
9	M.	$3\frac{5}{12}$	Spine-Dorso-lumbar c̄ psoas abscess,	Recumbency, Aspiration,	,,	445	,,
10	M.	8	Spine-Dorso-lumbar, ...	Recumbency,	Well	910	—
11	M.	17	Spine-Cervical c̄ paresis, ...	Recumbency, Extension,	I.S.Q.	7	Left own accord.
12	M.	27	Spine-Dorso-lumbar, c̄ abscess,	Aspiration,	Impd.	66	Trans. to Stonehouse.
13	M.	12	Hip c̄ Deformity, ...	Extension,	I.S.Q.	6	Taken home. Since re-admitted.
14	M.	10	,, ,, ,,	,,	Impd.	127	Trans. to Stonehouse.

15	M.	8	Hip c̄ Deformity, ...	Extension,	Impd.	239	Trans. to Stonehouse.
16	F.	14	Hip c̄ Deformity, ...	Extension,	Impd.	107	Trans. to Stonehouse.
17	F.	15	Hip c̄ Deformity, ...	Extension,	Impd.	90	Trans. to Stonehouse.
18	M.	4	Rt. Knee c̄ subluxation and flexion,	Extension, Walking Caliper,	Well	1,888	Fixed knee.
19	F.	5	Rt. Knee c̄ flexion, ...	Extension, Walking Caliper,	Well	540	Movement normal.
20	M.	8	Cervical Adenitis c̄ Abscess, ...	Incision,	Well	143	—
21	F.	9	Cervical Adenitis c̄ sinus, ...	Incision,	Well	143	—
22	M.	23	Multiple — Spine, knee, wrist c̄ Abscesses,	Aspiration,	I.S.Q.	66	Trans to Stonehouse.
23	M	19	Multiple – Spine, hip, knee, ...	Recumbency.	Worse	62	Trans to Stonehouse.
24	F.	2	Multiple—Spine and knee, ...	Recumbency, Extension,	Improved	362	Trans. to Stonehouse.

County Sanatorium, Uppertown, Longriggend.

Physician-Superintendent—J. M'Callum Lang, M.D., D.P.H.

Visiting Physician—Richard Rae, M.B., Ch.B., D.P.H.

Matron—Miss More.

Admissions and Discharges.

In Residence 1st January.	Admitted during year.	Discharged during year.	Died during year.	In Residence 31st December.
48	152	*136	18	46
		154		

*One patient was re-admitted, and completed two periods of residence during the year, making a net total of 135 discharged and 18 died, and the subsequent statistics deal with the total of 153.

Place of Residence.—Of the total cases discharged, 151 resided in the Middle Ward District, the place of residence according to parish being as follows:—

Avondale,	1	Dalserf,	11
East Kilbride,	1	Dalziel,	5
Stonehouse,	1	Hamilton,	3
Blantyre,	13	New Monkland,	14
Bothwell,	53	Old Monkland,	14
Cambuslang.	11	Shotts,	12
Cambusnethan,	12		
		Total,	151
Upper Ward.			1
Airdrie Burgh,			1
			153

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.	Tuber-culised.	Non-Tuber-culous.
– 5	14	6	20	Pre-School, - -	1	4	5	10
– 10	17	18	35	School Age, - -	2	8	15	10
– 15	9	13	22		4	2	10	6
– 20	8	14	22	Adolescent, - -	10	7	2	3
– 25	4	10	14		10	2	1	1
– 30	3	7	10	Early Maturity, -	8	1	—	1
– 35	3	8	11		8	1	—	2
– 40	5	2	7		5	—	—	2
– 45	1	1	2		1	—	1	—
– 50	2	1	3	Late Maturity, -	1	—	—	2
– 55	1	1	2		1	—	—	1
– 60	3	1	4		1	3	—	—
– 65	1	—	1		1	—	—	—
– 70	—	—	—		—	—	—	—
	71	82	153		53	28	34	38

Duration of Residence.

	Residence in Days.		
	Maximum.	Minimum.	Average.
Pulmonary, - -	550	2	209
Non-Pulmonary, - -	701	8	130
Tuberculised, - -	304	12	136
Non-Tuberculous, -	251	8	101

	Residence in Months.							
	0-1	1-3	-6	-9	-12	-18	-24	Over.
Pulmonary, - -	12	13	15	9	3	—	1	—
Non-Pulmonary, -	1	12	11	1	1	1	1	—
Tuberculised, -	1	15	12	4	2	—	—	—
Non-Tuberculous,	5	23	9	1	—	—	—	—

Transfers to other Institutions.—After observation or at the end of their period of sanatorium treatment, 39 cases were transferred to other institutions, as follows:—

Motherwell, - - -	9	2 Diphtheria, 1 Whooping-cough, 1 Ringworm, 1 Pleural Effusion, 1 Leukæmia, 1 Mastoid, 1 Glands, 1 for Lipiodol.
Bellshill, - - - -	1	For confinement.
Hairmyres, - - -	24	
Stonehouse, - - - -	2	
Dalserf, - - - -	3	

Pulmonary Tuberculosis.

(53 Cases.)

Included under this heading are two cases of *pleurisy with effusion.* One child was transferred to Hairmyres after four months' residence, the disease being arrested and the pulmonary parenchyma not affected. The other patient, a girl aged 15, had been admitted from Motherwell Hospital after repeated paracentesis; the fluid reaccumulated, and, there being signs of cardiac embarrassment, she was sent back to Motherwell.

These cases having been deducted, there remain 51 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 Admission.	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
Group I,	1	5	4	1	—	1	12
Group II,	1	4	5	—	—	6	16
Group III,	3	4	3	—	2	11	23

Duration of Illness of Fatal Cases.—17 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	3	1	3	1	1	7

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,	12	—	—	—	—
Group II,	5	6	2	—	3
Group III,	—	2	4	3	14

Sputum Examinations.—Bacteriological examinations showed that 80 per cent. of the verified cases had tubercle bacilli in the spit:—

Classification on Admission.	Positive.	Negative.	No Spit.
Group I,	10	1	1
Group II,	8	7	1
Group III,	23	—	—

Pulmonary Tuberculosis in Children under 15 (7 cases).—A boy of 14, convalescent after pleurisy with effusion, was transferred to Hairmyres in good health, after four months' residence.

F.7.—History of repeated attacks of bronchitis and pneumonia; dullness and crepitations over left upper lobe, positive X-ray, recurrent spikes and short periods of fever. Transferred to Hairmyres.

F.11.—Consolidation of right upper lobe, positive X-ray, swelling and sinus of right knee, old scars of neck. Great improvement in general health; gained 24 lbs.; developed signs of cervical caries. Transferred to Dalserf.

F.14½.—Acute phthisis; admitted *in extremis*, and died 14 hours later.

F.12.—An infiltrative lesion of right lung, persistent temperature, positive spit, abdominal infection, very ill. Taken home by parents.

F.4½.—Persistent signs all over left lung, positive X-ray, recurrent febrile attacks. Transferred to Hairmyres after 1½ years' residence.

F.7. — Crepitations, dullness, bronchial R.M. at right apex; positive X-ray; general health good. Transferred to Hairmyres.

Sputum Negative Pulmonary Tuberculosis (10 cases). — In all these cases the X-ray was positive, and the diagnosis was further supported by a history of definite haemoptysis in 3 instances, the presence of persistent crepitations in 5, and a history of positive spit prior to admission in 2.

Non-Pulmonary Tuberculosis.

(28 Cases.)

Cases of non-pulmonary tuberculosis requiring only hygienic and nursing treatment were dealt with in the Institution, and those for whom operative interference or special appliances were necessary were transferred to the County Hospitals at Motherwell and Stonehouse.

Abdominal Tuberculosis (4 cases).—*Febrile* 1.—Recurrent temperature and lassitude, abdominal tumour. Transferred to Hairmyres; disease quiescent.

Non-febrile, 3.—Operation diagnosis and no signs or symptoms; dismissed well, 1 case. Anæmia, debility, abdominal distension and rigidity, developed tetany, taken home, worse, 1 case. Emaciated and collapsed on admission, large abdominal mass, progressive asthenia, died, 1 case.

Bones and Joints (6 cases).—*With sinuses on admission.*—M.59, hip-joint disease of 18 years' duration, two sinuses on admission, one healed and general condition much improved after 5 months' treatment.

M.17. — Knee greatly swollen, one sinus, I.S.Q. on transfer to Dalserf.

F.56. — Ankle affected and one sinus, did not heal, and cold abscess developed in buttock. Transferred to Stonehouse.

M.15. — Disintegrated elbow joint, multiple sinuses, profuse purulent discharge, useless hand, hectic temperature, and very ill for 18 weeks after admission; general condition excellent, useful hand, joint ankylosing, serous discharge from sinuses after 22 months' treatment.

Without sinuses on admission.—F.19.—Arrested hip-joint disease, anæmic and debilitated; general condition very much improved. M.12.—Early hip-joint disease; transferred to Dalserf.

Glands (12 cases).—Three patients had *multiple glands of the neck*, and were very anæmic on admission; general condition very much improved on dismissal; local lesion apparently unaffected.

Five patients had *glandular swelling without abscess formation* or with old healed scars on admission. One was transferred to Motherwell; one to Stonehouse for excision; and the remaining 3 were discharged much improved in general health.

Four patients had *enlarged glands with sinuses on admission.* One was transferred to Motherwell for operation, and then to Hairmyres for convalescence; 1 contracted diphtheria, and went to Motherwell; and in 2 cases the sinuses were healed on dismissal.

Skin and Subcutaneous Tissue (3 cases). — Tuberculous ulcer of leg, discharging on admission, healed on dismissal, 1 case; abscess of back with sinus, healed on dismissal, 1 case; ischio-rectal abscess, definite hilus glands, emaciated and ill, dismissed with abscess healed and in excellent general health, 1 case.

Keratitis (1 case). — Great improvement in general condition, nebulæ not affected.

Multiple Lesions (2 cases). — Both patients had many scars of old tuberculous lesions, and each had suffered amputation of the leg. They were dismissed greatly improved in general health.

Tuberculised Children.

(34 Cases.)

Where children are stated in this report to have been suffering from abdominal tuberculosis, pulmonary tuberculosis, &c., the diagnosis was definitely established and discernible by ordinary clinical methods. The classification "tuberculised" has been reserved for those who gave a positive tuberculin reaction, but did not present localising signs of diagnostic significance. Those children were admitted with a history of poor general health, either alone or combined with respiratory or abdominal symptoms. Some of them were debilitated and had symptoms suggestive of tuberculosis; others gave one the impression that the positive tuberculin reaction was not indicative of the cause of their illnesses. In many cases it was undoubtedly only a coincidence, but in the meantime all have been classified as tuberculised. Four adults have been included in this general group — 2 were notified as suffering from pulmonary tuberculosis, and 2 from abdominal tuberculosis. In none of these could the diagnosis be confirmed, but the patients had some symptoms which made it desirable that they should remain under the observation of the Tuberculosis Officers.

In 19 instances the children were admitted as *notified cases of pulmonary tuberculosis*, and, in addition to the positive tuberculin reaction, the following conditions were found:—Anæmia, debility, or malnutrition, 5; bronchiectasis, 3; pulmonary fibrosis, 2; tonsils and adenoids, 3; asthma, 1; hilus glands, 2; chronic appendicitis, 1; debilitated contacts, 2.

In 11 instances the diagnosis on admission was *abdominal tuberculosis*, and the conditions noted were these: — Debility, &c., 7; infantilism, 1; debilitated contacts, 2; no apparent disease, 1.

Tuberculin Reactions.—All these patients gave positive tuberculin reactions, and belonged to the following age groups:—1-5 years, 5; 5-10 years, 15; 10-15 years, 10; 15-20 years, 2; 20-25 years, 1; 40-45 years, 1.

Non-Tuberculous Diseases.

(38 Cases.)

In 38 cases — that is 25 per cent. of those under review — the diagnosis of tuberculosis was altered, as follows :—

Adults (12). — *Notified pulmonary tuberculosis.* — Pulmonary fibrosis, 2; asthma, 1; valvular disease of the heart, 1; leukæmia, 1; diabetes, 1; hyperthyroidism, 1; post-influenzal debility, 1.

Notified osseous tuberculosis.—Chronic pyogenic osteomyelitis, 1; rickets, 1; bunion, 1.

Notified genito-urinary tuberculosis.—Cystitis, 1.

Children (26). — *Notified pulmonary tuberculosis.* — Pulmonary fibrosis, 1; convalescent pneumonia, 2; empyema, 1; naso-pharyngitis, 5; debility, 4.

Notified osseous tuberculosis. — Infantile paralysis, 1; arthritic pain, 1.

Notified abdominal tuberculosis. — Malnutrition, 4; rickets, 2; infantilism, 1; mental deficiency, 1; constipation, 1; recurrent diarrhœa, 1; no apparent disease, 1.

The altered diagnosis in the case of these children was supported by repeated negative reactions to tuberculin applied to each child by the percutaneous, cutaneous, and subcutaneous methods. The ages of the children were : — 0-1 year, 1; 1-5 years, 9; 5-10 years, 10; 10-15 years, 6.

SPECIAL EXAMINATIONS AND TREATMENT.

Dental Treatment.—The visiting dentist made 5 visits, and treated 44 patients, the total number of extractions being 162, and scalings, 1.

Ear, Nose, and Throat Specialist.—Two cases were referred to consulting laryngologist, and the following conditions were diagnosed — Secondary laryngeal tuberculosis, 1; tonsils and adenoids, 1. (Tonsillectomy performed.)

X-Ray Examination.—75 patients were X-rayed at the County Hospital, Motherwell, the radiographs being sent to the Physician-Superintendent, and read in conjunction with the clinical picture.

Artificial Light Treatment. — Treatment with the atmospheric mercury vapour lamp was carried on throughout the year. The results were similar to those obtained in previous years, and supported the opinion that abnormal improvement ascribable to this form of treatment is restricted to a limited class of case, and that the application of artificial light to cases in general does not lead to better results than those obtained by the ordinary sanatorium régime.

Outbreaks of Infectious Disease. — Two children were transferred to Motherwell Hospital suffering from *Diphtheria*—one in the month of March, and one in July. One case of *Whooping-cough* was dealt with similarly, and in all three instances the infection appeared to have been introduced by visitors.

ADMINISTRATION.

Buildings and Grounds.—The open front of the male shelter was closed in with windows, and a cubicle formed for the isolation of acute cases. A fireplace was constructed in the recreation hut, which is now used throughout the year as a day-room.

The Works Department carried out painting of the laundry and the male recreation hut, and also executed various repairs in a most satisfactory manner.

Accommodation.—The accommodation was unchanged, and consisted of 31 beds and 14 cots, allocated as follows:—Adult males, 9; juvenile males, 8; adult females, 19; juvenile females, 5; cots, 14. The juvenile beds are used for children or for adults suffering from non-pulmonary disease.

Staff.—The *Medical Staff* of 2 is non-resident. The *Nursing Staff* comprises a matron, 2 general trained sisters, 4 staff nurses, and 4 probationers. *Domestic Staff*—1 cook, 3 laundry maids, and 7 maids. *Outdoor Staff* — 1 engineer attendant (resident) and 2 assistant gardener-firemen (1 resident).

Hairmyres Colony.

REPORT BY THE PHYSICIAN-SUPERINTENDENT

JAMES JOHNSTONE, M.B., Ch.B., D.P.H.

For the Year 1929.

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.
224	251	244	231

Patients Classified According to Place of Residence.

(a) Middle Ward.

Blantyre,	15	Dalziel,	3
Bothwell,	85	Hamilton,	6
Cambuslang,	26	New Monkland,	9
Cambusnethan,	12	Old Monkland,	7
Dalserf,	12	Shotts,	24
		Total,	— 199

(b) Other Districts and Burghs in County.

Lower Ward,	2	Hamilton,	15
Upper Ward,	2		
		Total,	— 19

(c) Outwith the County.

Ayrshire,	4	Dunbartonshire,	4
Berwickshire,	2	Inverness-shire,	1
City of Glasgow,	6	Renfrewshire,	9
		Total,	— 26

NATURE OF DISEASE.

Of the 244 patients discharged during the year under consideration, 236 proved to be tuberculous, in 105 cases the disease assuming the pulmonary form, while in 131 it was non-pulmonary. The diseases affecting 7 cases were as follows:—Bronchiectasis, 1; bronchitis, 2;

emphysema, 1; pulmonary fibrosis, 2; venereal disease, 1. In the remaining case, no tuberculous lesion was detected.

In the statistics which follow, only 236 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,	28	51	8	5	1	93
Women,	2	9	4	1	—	16
Boys,	20	34	12	1	—	67
Girls,	14	37	7	2	—	60
Totals,	64	131	31	9	1	236

OCCUPATIONS.

Miners,	41	Carter,	1
Artisans,	15	Cement Worker,	1
Labourers,	7	Farm Worker,	1
Salesmen,	4	Hairdresser,	1
Constables,	2	Mill Worker,	1
Clerks,	2	Nurse,	1
Bus Conductor,	1	Potter,	1

PULMONARY TUBERCULOSIS.

	Admissions.			Discharges.		
	Direct.	By Transfer.	Total.	Direct.	By Transfer.	Total.
Men,	43	23	66	61	5	66
Women,	5	6	11	9	2	11
Boys,	10	1	11	10	1	11
Girls,	12	5	17	16	1	17
Totals,	70	35	105	96	9	105

REASONS FOR DISCHARGE.

	Stage I.	Stage II.	Stage III.	Totals.
Period of Treatment Completed,	19	12	4	35
Against Medical Advice,	22	16	11	49
Domestic and Financial,	3	2	2	7
Misconduct,	3	1	1	5
Contagious and Infectious Disease,	2	1	1	4
Transferred to other Institutions,	1	2	2	5
Totals,	50	34	21	105

Age and Sex Distribution.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups
Under 5, - -	—	—	—	Pre-School Age.
,, 10, - -	4	7	11	School Age.
,, 15, - -	9	10	19	
,, 20, - -	14	7	21	Adolescence.
,, 25, - -	16	2	18	
,, 30, - -	4	1	5	Early Maturity.
,, 35, - -	6	—	6	
,, 40, - -	10	—	10	
,, 45, - -	4	—	4	
,, 50, - -	3	1	4	Late Maturity.
,, 55, - -	1	—	1	
,, 70, -	6	—	6	Post Maturity.
Totals, - -	77	28	105	

Duration of Illness.

	Months.			Years.		
Duration, -	1-3	3-6	6-12	1-2	2-4	Over 4
Cases, -	1	4	11	13	22	54

51 per cent. of the cases gave a history of over four years' illness. This is a slight increase on last year's figures and is an unsatisfactory feature. Tuberculosis being a curable disease, the earlier the cases come under treatment the shorter the duration of residence required and the better the results.

Initial Manifestations of Illness.

Cough, - - - -	27	Hæmoptysis, - - -	2
Pleurisy, - - - -	27	Loss of Weight, - - -	2
Pneumonia, - - - -	23	Bronchitis, - - - -	1
Lassitude, - - - -	10	Dactylitis, - - - -	1
Adenitis, - - - -	4	Following Gassing, - -	1
Influenza, - - - -	3	Gastritis, - - - -	1
Debility, - - - -	2	Whooping Cough, - -	1

Results of Treatment.

The classification adopted is that of Turban-Gerhardt.

Stage of Disease.	Number of Patients.	T.B. Present.	Quiescent.	Improved.	No Change.	Worse.
I, - - -	50	4	15	20	14	1
II, - - -	34	7	3	19	9	3
III, - - -	21	12	—	6	12	3
Totals, - -	105	23	18	45	35	7

An analysis of the figures shows that 30 per cent. of the cases in Stage I, *i.e.*, the earliest cases of disease, were discharged with the disease "quiescent," in other words, showed no evidence of active disease on leaving the Colony. One might remark on the small proportion of cases in Stage I with a positive spit, but this is what one would expect. A patient with a positive spit is not an early case. If one wishes to get the best results, beware of delaying the diagnosis until tubercle bacilli are found in the spit.

Complications.—The undernoted table shows complications present in the different stages of the disease.

	Stage I.	Stage II.	Stage III.	Totals.
Blepharitis marginalis,	1	1	—	2
Cardiac arrhythmia,	1	1	—	2
Fistula in ano,	—	1	—	1
Herpes zoster,	1	—	—	1
Laryngitis,	1	—	1	2
Otorrhœa,	—	1	—	1
Pruritus ani,	1	—	—	1
Pyorrhœa Alveolaris,	1	—	—	1
Totals,	6	4	1	11

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,	8	7	9	12	14	235
Stage II,	5	7	1	12	9	316
Stage III,	6	4	3	3	5	254
Totals,	19	18	13	27	28	

Duration of Residence in Days.

	Average.	Maximum.	Minimum.
Men,	293	1,456	3
Women,	135	373	6
Boys,	344	1,014	20
Girls,	191	438	8

Family History.

	Number of Cases Discharged.	Positive History. Stage I.	Stage II.	Stage III.	Percentage.
Men,	66	3	4	4	17
Women,	11	1	—	2	27
Boys,	11	3	1	—	36
Girls,	17	2	1	—	18
Totals,	105	9	6	6	20

The value of this table is rather doubtful as there is extreme difficulty in eliciting a positive family history. The majority of the cases endeavour to conceal the fact, and it is only when another member of the family is a notified case that one can obtain accurate information.

NON-PULMONARY TUBERCULOSIS.

131 patients received treatment for the non-pulmonary form of tuberculosis, a marked increase on the previous year's figures, and for the first time, outnumber the pulmonary cases.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5,	—	1	1	Pre-School Age.
,, 10,	29	22	51	School Age.
,, 15,	30	21	51	
,, 20,	6	4	10	Adolescence.
,, 25,	6	—	6	
,, 30,	4	—	4	Early Maturity.
,, 35,	5	—	5	
,, 40,	2	—	2	
,, 45,	—	—	—	
,, 50,	—	—	—	Late Maturity.
,, 55,	—	—	—	
,, 70,	1	—	1	Post Maturity.
Totals,	83	48	131	

The majority of the cases, 79 per cent., were between the ages of 5 and 15.

The following table shows results of treatment according to the nature of the disease :—

	Quiescent.	Imp.	No Change.	Worse	Total.
Peripheral Glands,	29	40	8	—	77
Tracheo-bronchial Glands,	6	8	1	—	15
Abdomen,	7	6	—	—	13
Skin,	1	4	2	—	7
Bone,	4	4	1	—	9
Spine,	—	1	—	1	2
Other Organs,	4	3	1	—	8
Totals,	51	66	13	1	131

25 per cent. of the peripheral gland cases had discharging sinuses before or during treatment.

This table indicates that the results of treatment in non-pulmonary tuberculosis were extremely satisfactory, 89 per cent. of the cases being discharged either "quiescent" or "improved." This is

probably explained by the fact that the majority of these were children and therefore early types of the disease.

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, - -	4	13	9	25	26	273
Tracheo-bronchial Glands, -	1	3	3	2	6	257
Abdomen, - - - - -	—	2	2	4	5	266
Skin, - - - - - -	2	—	—	3	2	330
Bone, - - - - -	3	1	2	2	1	149
Spine, - - - - -	—	—	2	—	—	157
Other Organs, - - -	—	—	2	2	4	312
TOTALS, - -	10	19	20	38	44	

DURATION OF RESIDENCE IN DAYS.

	Average.	Maximum.	Minimum.
Men, - - - - -	305	1,173	5
Women, - - - -	175	213	131
Boys, - - - - -	259	665	3
Girls, - - - - -	262	571	8

Compared with last year, there is a gratifying increase in the number of cases with a residence of over 26 weeks, emphasising the importance of prolonged treatment to obtain permanent results.

FAMILY HISTORY.

	Number of Cases Discharged.	Positive.	Percentage
Men, - - - - -	27	4	15
Women, - - - -	5	1	20
Boys, - - - - -	56	12	21
Girls, - - - - -	43	15	35
Totals, -	131	32	24

The same remarks apply to the family history in the non-pulmonary type as in the pulmonary, although in the former the incidence of bovine infection would have to be carefully considered.

PENSIONERS.

Included in the patients discharged during the year under consideration were 5 pensioners, a decrease of 11 on the previous year. Of that number, 3 were affected with the pulmonary type of the disease, 2 being in Stage II and 1 in Stage III. In the remaining 2 cases, no definite tuberculous lesion could be detected.

This paragraph, as one would naturally expect, is gradually approaching total elimination.

AFTER-HISTORY.

To enable one to form some idea of the after-results of treatment in an institution for the tuberculous, a questionnaire was sent out to patients who had been in residence five years ago and were then between the ages of 12 and 14. They would now be 17 to 19 years old, a very susceptible period. 29 patients replied and they were all definite cases of tuberculosis, the lesions being as follows:—Lungs, 14; glands, 10; abdomen, 4; skin, 1. 26 patients replied that their health had been good since leaving the Colony, 2 (gland cases) reported no change, and 1 lung case was worse. It is interesting to note that none had died. In other words, 89 per cent. of the cases were in good health, a result which most unbiassed people will agree is very satisfactory and firmly establishes the value of institutional treatment.

GRADUATED LABOUR.

Of the 100 males discharged during the period under review, 78 registered for training. 12 were physically unfit for systematic training, but were engaged in occupational therapy, and 10 were unable to work without prejudice to their condition.

NECESSITOUS CASES.

During the year, 118 necessitous cases—an increase of 3 on last year—were supplied with clothing and boots, as follows:—

	Cases	Value
Middle Ward District, - - - - -	81	£240 8 6
Other Authorities, - - - - - -	37	129 16 0

The necessitous circumstances of all cases were verified by the respective Medical Officers of Health.

WASSERMANN TEST.

A specimen of blood for the Wassermann test was taken from all adult patients on admission, with the undernoted results:—

Positive, 1; strongly positive, 2. Total, 3.

This was equal to 2·6 per cent. of the adult admissions. The figure for the previous year was 6·4 per cent., and there has been a steady reduction in the last two or three years.

DENTAL TREATMENT.

During the year, 130 adults and 129 children received treatment as follows:—Extractions, 505; fillings, 53; scalings, 29. 2 patients were supplied with complete sets of artificial dentures, 1 patient with a lower denture and 1 patient had his denture repaired.

The figures for conservative treatment (fillings and scalings) remain much the same as last year. There was an increase in the number of extractions compared with last year (462). Our Dental Surgeon visited the Colony once a fortnight.

X-RAYS.

Our apparatus continued to give good service during the year. The Metalix water-cooled tube was changed for one of the radiator air-cooled pattern as it was found more satisfactory for prolonged working.

To be able to interpret lung films properly, one must have a good knowledge of the normal chest. Every scar and calcified area leaves a mark on the film. In the early stage of the disease, the X-rays are of undoubted value, definite haziness, peribronchial infiltration, and a marked degree of lessened illumination on coughing being determined on film and fluoroscopic examination. In the adult, the diagnosis of pulmonary tuberculosis should be confined to involvement of the parenchyma, peribronchial or hilum densities being very prevalent in the industrial classes, particularly miners. Heavy trunk and hilum shadows are found in many pulmonary infections. Cavities also present certain characteristic signs, the acute cavity having no distinct capsule showing lung tissue in its interior and not lighting up on coughing. The chronic cavity, on the other hand, has a definite capsule, a clear centre, and illuminates on coughing. It is obvious that X-ray examination is essential in all cases of suspected pulmonary tuberculosis. There is at present no other method which will give so accurate a picture of the abnormal lung during life. By an intelligent correlating of all these facts with the clinical examination and the laboratory findings, one is enabled to arrive at a diagnosis of real value. At Hairmyres, the great majority of the films were stereoscopic, and this is a very valuable aid in the diagnosis of the incipient case.

All cases of suspected abdominal tuberculosis received rectal barium injections, and 31 patients had this treatment. This is now a routine practice, as it is of considerable value in establishing the diagnosis, shown by defective filling of the cæcum, loss of haustration, &c.

Lipiodol.—The use of Lipiodol was further elaborated this year and altogether 19 patients were treated, the following areas being injected :—Lungs, 16; pleura, 1; kidney, 1; groin, 1. In cases of bronchiectasis, this treatment is of undoubted value and enables one to arrive at a definite diagnosis.

In cases of pulmonary fibrosis, it was thought to be of some value as these cases present considerable difficulty. Considering the limited number of cases treated, it is rather too soon to draw definite conclusions. However, one could detect a certain characteristic dilatation and thickening of the bronchioles. Lipiodol is rapidly coming into prominence as a valuable aid in the differential diagnosis of various diseases, particularly those affecting the lungs. All cases received their injections through the crico-thyroid membrane, using the special trocar and cannula recommended by Chandler and Wood.

ACTINOTHERAPY.

The ultra-violet rays, both natural and artificial, were again extensively used for the treatment of the non-pulmonary forms of tuberculosis.

Heliotherapy.—This treatment, for the eighth year in succession, was applied during the summer season, and although only possible to a limited extent owing to our northern climate, it certainly proved to be of considerable benefit to the tuberculous children, all the cases reacting well. The treatment commenced on 10th March and terminated on 17th September. As stated before, it is certainly the best and cheapest method of obtaining the health-giving ultra-violet rays.

Artificial Light.—Our Light Department is well equipped for all forms of light treatment, the apparatus consisting of carbon arc lamps (long and short flame), quartz mercury vapour lamps (atmospheric and air-cooled). The last type of lamp, a K.B.B. Uviator, was of great value in local treatment of lupus and glands. In the short flame carbon arc lamps, we continued to use Polar white flame positive carbons and solid plain negative carbons. In the long flame carbon arcs, Watson's carbons, Type B, were used. In the Report for 1928, one expressed the view that the long flame lamps were better as a general tonic, particularly in the treatment of debilitated children, whereas the short flame lamps seemed to have a more marked effect on definite tuberculous lesions. The further experience gained makes one still hold the same view.

All cases, regardless of the site of the lesion, received general light baths with, in addition, local applications if necessary, the reason being that tuberculosis is a general disease involving the whole system and must be treated accordingly.

The average number of treatments given per month was 879. The total number given by the different lamps was as follows:—Short-flame arc, 3,957; long-flame arc, 3,593; mercury vapour, 1,794: Uviator, 1,199.

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Glands.	J. C.	10	M.	1 month.	2 months.	M.V. S.F.	Cured.
	J. R.	14	M.	5½ years.	8 ,,	U.V. L.F.	Cured.
	W. P.	9	M.	6 months.	8 ,,	U.V. S.F.	Cured.
	R. L.	38	M.	20 years.	3½ ,,	U.V. L.F.	Improved.
	G. W.	32	M.	20 ,,	15 ,,	M.V.	Improved.
	R. L.	39	M.	2 ,,	2½ ,,	U.V. L.F.	Improved.
	N. W.	14½	F.	2 months.	6 ,,	U.V. L.F.	Cured.
	E. K.	23	M.	3½ years.	3 ,,	U.V. L.F.	Improved.
	G. M'K.	24	M.	15 months.	4 ,,	U.V.	Improved.
	P. C.	7	M.	6 years.	11 ,,	U.V. L.F.	Cured.
Glands (Discharging Sinus).	P. S.	20	M.	16 years.	2 weeks.	U.V. L.F.	Improved.
	D. M'D.	20	M.	10 months.	14½ months.	U.V. M.V. S.F.	Cured.
	F. M.	12	M.	5 ,,	4 ,,	M.V. S.F.	Improved.
	P. H.	12	M.	7 ,,	12 ,,	M.V. S.F.	Cured.
	R. D.	48	M.	33 years.	4½ ,,	U.V. L.F.	Cured.
	W. S.	27	M.	10½ ,,	2½ ,,	U.V. L.F.	Improved.
	W. F.	20	M.	10 ,,	7 ,,	M.V. L.F.	Cured.
	J. B.	13	F.	10 months.	1 year.	M.V. L.F.	Cured.
	T. B.	11½	M.	5 weeks.	5 months.	M.V.	Cured.
	M. K.	6	F.	2 years.	4 ,,	M.V. S.F.	Cured.
	D. B.	30	M.	5 months.	11½ ,,	M.V. L.F.	Cured.
	J. B.	4	F.	1 year.	11½ ,,	M.V. S.F.	Cured.
	W. M'D.	12	M.	6 ,,	11 ,,	M.V. L.F.	Cured.
	A. M.	11	F.	3 ,,	2¼ ,,	M.V. S.F.	Improved.
	I. R.	9	F.	2 ,,	5½ ,,	M.V. S.F.	Cured.
	J. P.	11	F.	11 months.	15 ,,	U.V. S.F.	Cured.
	J. C.	7	F.	3 years.	5 ,,	M.V. S.F.	Cured.
	J. S.	12	M.	3 months.	7½ ,,	U.V. S.F.	Cured.
	J. B.	7	M.	10 ,,	5 ,,	M.V. L.F.	Cured.
	R. M'F.	13	M.	6 ,,	2 ,,	M.V. S.F.	Cured.
	M. S.	6	F.	2 years.	2½ ,,	M.V. S.F.	Cured.
Bone.	R. S.	7	M.	1 year.	7½ ,,	U.V.	Cured,
	J. C.	9	F.	1 month.	8 ,,	M.V.	Cured.
	H. T.	8	M.	8 ,,	5 ,,	S.F.	Cured.
	A. H.	15	M.	3 years.	4 ,,	M.V. L.F.	Cured.
	A. G.	12	M.	1½ ,,	4 treatments.	M.V.	I.S.Q.
	H. B.	6	F.	2 ,,	3 ,,	M.V.	I.S.Q.
	J. B.	31	M.	6½ ,,	4	S.F.	I.S.Q.

Lesion.	Patient. Name.	Age.	Sex.	Duration of Illness.	Duration of Treatment.	Lamp.	Result.
Catarrhal Lupus.	M. J.	12	F.	4½ years.	5½ months.	U.V S.F.	Cured.
	J. C.	9	F.	3 ,,	7 ,,	U.V. S.F.	Cured.
	J. B.	18	M.	14 ,,	2½ ,,	S.F.	Cured.
	L. P.	12	F.	6 ,,	8 ,,	U.V. L.F.	Cured.
Fibroid Lupus.	L. C.	16	F.	14 ,,	5 ,,	U.V. S.F.	Cured.
	P. M'N.	13	M.	6 ,,	6½ ,,	U.V. L.F.	Cured.
	J. B.	15	M.	10 ,,	14 ,,	U.V. M.V.	Cured.
Abdomen.	R. S.	6	M.	3½ ,,	3½ ,,	S.F.	Cured.
	T. M.	18	M.	3 months.	5 ,,	S.F.	Cured.
	C. R.	22	M.	1 year.	1½ ,,	S.F.	Improved.
Septic Hand.	L. S.	22	F.	Few days.	7 treatments	M.V	Cured.
	E. S.	50	F.	1 week.	4 ,,	M.V.	Cured.
	C. M'K.	32	F.	1 month.	16 ,,	M.V.	Cured.
Furunculosis.	C. M'I.	22	F.	1 ,,	2 months.	M.V.	Cured.
	C. M'K.	21	M.	1 ,,	1½ ,,	M.V.	Cured.
Empyema.	O. Q.	24	M.	10 ,,	11 ,,	U.V. L.F. S.F.	Improved.
Debility.	J. P.	5½	M.	2 ,,	4 ,,	L.F.	Cured.
Slough, Elbow.	J. S.	40	M.	1 ,,	2½ ,,	M.V.	Cured.

* S.F.—Short Flame. L.F.—Long Flame. M.V.—Mercury Vapour. U.V.—Uviator.

At the end of the year, 19 males and 6 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, 4 males and 3 females were still undergoing treatment.

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	Lamp.	Result.
Glands.	J. J.	5	M.	2 weeks,	1½ months.	L.F.	Cured.
	W. T.	4½	M.	3 ,,	8 ,,	M.V. L.F.	Cured.
	H. O.	9	M.	3 ,,	5½ ,,	M.V.	Cured.
Glands (Discharging Sinus).	H. W.	27	F.	5 months.	1¾ years.	M.V. S.F.	Cured.
	J. M'N.	10	F.	4 ,,	1 month.	M.V.	Improved.
Abdomen.	J. C.	1½	M.	2 ,,	3 ,,	M.V.	Cured.
	G. A.	2½	M.	1½ years.	3 weeks.	M.V.	I.S.Q.
Kidney Abscess.	H. B.	70	M.	15 ,,	6½ months.	M.V.	Improved.
Rheumatism.	T. D.	58	M.	3 ,,	23 treatments.	R.H.	Cured.
Neuritis.	M. B.	64	F.	1 month.	5½ months.	R.H. M.V.	Cured.
Alopecia Areata.	J. F.	35	M.	5 ,,	11 ,,	M.V.	Cured.

The above tables show the cases that completed treatment during the year and indicate a considerable increase in the amount of work done compared with former years.

Analysing the results, we find that 75 per cent. of the cases were cured, a result which speaks for itself and undoubtedly proves the value of light in the treatment of the non-pulmonary forms of tuberculosis. It also indicates that any expenditure on this form of treatment is money well spent.

A close study of various reports indicates, as one would naturally expect, that the results of treatment are better at an institution than at a dispensary. In the former, the patients have the benefit of general hygienic treatment, good food, regular meals, &c.

A pleasing feature this year was the increase in the number of out-patients. These were all cases recommended by the local medical practitioners.

Examining the various types of cases treated, we find that, although they are not numerous, the results confirm the conclusions of previous years, that the best cases are those of lupus and tuberculous glands.

Our present accommodation is being rather overtaxed, and if the increase is maintained, then something will have to be done. The ideal arrangement would be a separate building to house our X-ray and light departments.

The Wood's glass filter, which has been used in conjunction with the air-cooled mercury vapour lamp for the diagnosis of ringworm, was found to be of some use in another direction. At the request of the County Medical Officer, samples of eggs, butter, and margarine were examined, the sample being inserted in the beam of light from the lamp in a darkened room, the rays being filtered by the Wood's glass. The shell of a fresh egg had a rosy red appearance which no other pickled or foreign egg could imitate. The difference in colour between margarine and butter was also very characteristic, the former having a very pale white appearance.

Radiant Heat.—For the treatment of pleurodynia, indefinite pains, &c., a common feature in cases of pulmonary tuberculosis, a K.B.B. Gallois Infra-red Radiation Projector Lamp was purchased towards the end of the year. Only a limited number of cases have

been treated so far, but the results have justified the expenditure. Next year, when a larger number of cases have been treated, definite conclusions can be drawn. The technique is as follows:—Daily exposures of three minutes' duration of 5 seconds on and 10 seconds off, the distance being the point of maximum intensity of the heat, generally about 12 inches. To avoid exposing too much of the body, which is not advisable in cases of pulmonary tuberculosis, asbestos sheeting with varying sizes of apertures was used.

Lesion	Patient			Number of Treatments	Lamp	Result
	Name	Age	Sex			
Pleurodynia, -	S. W.	32	F.	15	R.H.	Cured.
	J. M'G.	22	M.	13	R.H.	Cured.
	M. J.	29	F.	3	R.H.	I.S.Q.
	J. S.	40	M.	1	R.H.	Cured.
	F. S.	18	M.	12	R.H.	Cured.
	R. T.	31	M.	3 months.	R.H.	Cured.
Rheumatism, -	A. H.	19	M.	34	R.H.	Cured.
	M. P.	18	M.	4	R.H.	Cured.
	J. H.	24	M.	4	R.H.	Cured.

At the request of Messrs. Kelvin, Bottomley, & Baird, Ltd., we carried out experiments with Dr. Saidman's Sensitometer, a very ingenious apparatus for testing the erythema threshold of each patient. Certain modifications were suggested and these have been incorporated in a new British model. This Sensitometer is of simple construction and is certainly a great improvement on any other apparatus at present available for this test. The haphazard method of giving so many minutes' exposure without careful testing of the sensitivity of the patient is bound to cause trouble sooner or later. Our experience here has shown quite marked variations. All our cases are carefully tested prior to treatment.

ARTIFICIAL PNEUMOTHORAX.

This operation should be a regular feature of sanatorium work. Unfortunately, a large number of cases are not suitable owing to pleural adhesions. Every well-equipped sanatorium should have an operating theatre for the surgical treatment of pulmonary tuberculosis. In this respect, continental countries are more advanced than we are. If the artificial pneumothorax is unsuccessful, one should have facilities for performing thoracoscopy, phrenicotomy, thoracoplasty, &c. 27 pneumothorax injections were given during the year, the Holmes-Wingfield apparatus being used.

BLOOD SEDIMENTATION REACTION.

The following is a report by Dr. Thomson, Assistant Physician, on the work done in connection with the blood sedimentation reaction :—

As in previous years, the blood sedimentation reaction has been adopted as part of the routine examination of every adult patient admitted to the Colony, and has again been found of considerable value in considering the prognosis of each case. The method in use is, as previously, that devised by Westergren, the reading being made at one hour.

The cases have been divided into pulmonary and non-pulmonary, and the pulmonary cases into those whose sputum contains the tubercle bacillus and those whose sputum does not. In comparing Tables I and II, it will be seen that there is a marked difference in sedimentation rate between sputum positive and sputum negative cases, the latter having a much lower rate in every stage of the disease. Out of the 45 sputum negative cases, only 5 had a sedimentation rate of over 10, whilst out of the 43 sputum positive cases, 34 had a sedimentation rate of over 10.

Female adult cases are so few that it is impossible to draw any conclusions from the results shown in Tables III and IV.

In Table V, the results obtained in non-pulmonary forms are tabulated. As has been observed in previous years, bone cases tend to have a high sedimentation rate, thus 6 out of 11 cases had a sedimentation rate of over 10 mm., whilst only 2 out of the 28 other types had sedimentation rate of over 10. These 2 cases were cases of cervical adenitis.

In order to test further the value of the test in prognosis, those cases resident in the Colony between October, 1927, and September, 1928, were communicated with to discover their present state of health. The results obtained are given in Tables VII, VIII, IX, and X.

In considering the male pulmonary cases, it is significant that 5 of the 9 who have died had sedimentation rates of over 60 mm., whilst not one of the remaining 42 had a sedimentation rate of over 60 mm.

Reviewing these tables as a whole, it would therefore appear that the sedimentation rate is of marked value in pulmonary cases, but that further investigation is necessary before the value of the test in other forms of tuberculosis can be appraised.

TABLE I.

Males.

Stage.	Number of Cases.	Sputum.	S.R. (Average).
I.	6	Positive.	10·5
II.	15	Positive.	30·4
III.	22	Positive.	34·0

TABLE II.

Males.

Stage.	Number of Cases.	Sputum.	S.R. (Average).
I.	18	Negative.	4·8
II.	22	Negative.	8·6
III.	5	Negative.	7·2

TABLE III.

Females.

Stage.	Number of Cases.	Sputum.	S.R. (Average).
I.	1	Positive.	22
II.	1	Positive.	12
III.	1	Positive.	56

TABLE IV.

Females.

Stage.	Number of Cases.	Sputum.	S.R. (Average).
I.	3	Negative.	15
II.	1	Negative.	10
III.	1	Negative.	10

TABLE V.

Non-Pulmonary (Males.)

Lesion.	Number of Cases.	S.R. (Average).
Cervical adenitis,	16	7·6
Bone,	11	39·4
Skin,	6	5
Abdomen,	3	3
Kidney,	2	7·5
Epididymis,	1	10

TABLE VI.

Non-Pulmonary (Females).

Lesion.	Number of Cases.	S.R. (Average).
Cervical adenitis,	2	33
Abdomen,	1	10
Bone,	2	3
Skin,	1	7

CASES RESIDENT IN COLONY BETWEEN OCTOBER, 1927, AND SEPTEMBER, 1928.

TABLE VII.

PULMONARY CASES (MALE).

Number of Cases.	State of Health.	S.R. (Average).
23	Good.	7·4
12	Fair.	11·3
7	Poor.	23·6
9	Died.	49·3

TABLE VIII.

NON-PULMONARY CASES (MALE).

Number of Cases.	State of Health.	S.R. (Average).
8	Good.	22·75
2	Poor.	6
2	Died.	46

TABLE IX.

PULMONARY CASES (FEMALE).

Number of Cases.	State of Health.	S.R. (Average).
2	Good.	51·8
2	Fair.	22·5
1	Died.	83

TABLE X.

NON-PULMONARY CASES (FEMALE).

Number of Cases.	State of Health.	S.R. (Average).
2	Good.	4·5
1	Poor.	3

THE OPEN-AIR SCHOOL.

The new school has now been in use for over a year and has proved to be one of the most successful schemes in the Colony. The extra third teacher enabled the scholars to be divided into three suitable age groups. The school time-table was as follows:—

9 a.m.—12 noon.	Seniors.	Miss Lamont.
9 a.m.—12 noon	Juniors.	Miss Bayne.
9—10.20 a.m.	Higher Infants.	Miss Skinner.
10.20—12 noon.	Lower Infants.	Miss Skinner.
12 noon—2 p.m.	Lunch and Rest Hour.	
2—4 p.m.	Seniors.	Miss Lamont.
2—4 p.m.	Juniors.	Miss Bayne.
2—2.30 p.m.	Higher Infants.	Miss Skinner.
2.30—3 p.m.	Lower Infants.	Miss Skinner.
3—4 p.m.	All Infants.	Miss Skinner.

One cannot over-emphasise the value of concurrent treatment and education of tuberculous children. With our present buildings, we are well in the forefront and we hope this scheme will long be a feature of the Colony. The average number of children attending school was 91; maximum, 98; minimum, 85.

BUILDINGS AND GROUNDS.

The Colony has accommodation for 250 patients, as follows:—

Pavilion I—Adult Males,		84
Pavilion II—Adult Males,	46	
Boys,	33	
	—	79
Pavilion III—Adult Females,	9	
Children,	61	
	—	70
Observation Block—Children,		17
Total Beds,		250

The Institution cottages, potting shed, kitchen, nurses' recreation room, and ward ceilings were painted. In addition, the plaster work was repaired in the various buildings, all this being done by the Works Department. In the boiler-house, a new centrifugal steam pump was installed for the heating system and has proved very satisfactory and economical.

Recreation.—This is considered an important part of the Colony scheme and we are well equipped with a Recreation Hall. During the winter months, there was a weekly cinematographic entertainment with, on an average, a concert once a week and a monthly whist drive. The billiard-room was well patronised, there being frequent competitions. There were also facilities for carpet bowls and other indoor games. The arrangements for outdoor recreation consisted of a golf course, putting green, croquet lawn, and quoiting ground.

We would like to express our gratitude to all the kind friends who so generously provided entertainments during the season.

Religious Services.—Regular services were held in the Recreation Hall, and our thanks are due to the eleven local clergymen who conducted those services.

STAFF.

In October, Dr. Alexander G. Thomson was appointed assistant physician in place of Dr. Finlayson.

At the end of the year, the Institution Staff, in addition to the Physician-Superintendent, Assistant Physician, and Matron, included the following :—

Sisters,	6	Typist,	1
Staff Nurses,	3	Clerks,	2
Nurses,	16	Electric Power Station,	6
Supervisor,	1	Handyman,	1
Maids,	29	Porter,	1
School Teachers,	3	Attendant,	1
		Total,	70

METEOROLOGICAL REPORT.

I. Rainfall.

Month.	Depth in Inches.	Month.	Depth in Inches.
January,	1·45	July,	3·23
February,	1·7	August,	5·46
March,	0·40	September,	1·48
April,	2·25	October,	5·73
May,	4	November,	7·8
June,	2·34	December,	9·5
		Total Rainfall for Year,	45·34

This shows a decrease of 11·61 inches on the previous year.

During the year, there were 211 completely dry days, being 22 days more than last year.

It is interesting to note that, in the last half of the year, the rainfall was about three times the amount in the first half.

II. Winds.

North,	29	South,	41
North-East,	26	South-West,	49
East,	46	West,	94
South-East,	13	North-West,	67
	114		251

III. Temperature.

	Highest Reading.	Lowest Reading.	Mean.
January, - -	48	18	33
February, - -	48	8	28
March, - - -	66	20	43
April, - - -	62	24	43
May, - - -	75	28	51·5
June, - - -	78	34	56
July, - - -	86	38	62
August, - -	68	38	53
September, - -	68	37	52·5
October, - -	60	24	42
November, - -	55	22	38·5
December, - -	48	18	33

The mean temperature for the year, therefore, works out at 44·6.

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.

During the year, 28 patients enrolled for training. This department is now fully equipped for the training of patients in all forms of gardening. The patients received a good training in the principles of market gardening. The produce was supplied to the Institution, and the surplus was sent to market or sold privately. The staff consists of a head gardener, inside and outside foremen, 7 under-gardeners, and a carter.

FOREST NURSERY.

39 patients enrolled for training in this department. The work, as usual, consisted in the sowing of seeds and the rearing of young trees. Most of the trees were sent to the Afforestation Scheme at Camps. Privet was grown for the hedges in the various housing schemes, and the planting was done under the supervision of our head forester. There was a ready sale for the roses grown in this department. A great many private orders were obtained for trees and shrubs. Willows were also grown for the Basketmaking Department. The staff consists of a head forester, who is also in charge of Camps, foreman forester, 5 under-foresters, a carter, and a caretaker. The Apiary supplied 45 lbs. of honey to the Institution.

POULTRY FARM.

During the year, 46 patients enrolled for training. The work in this department is very suitable for tuberculous patients, as it is essentially an open-air occupation, and the duties are not arduous. There is a certificated poultry-maid in charge, and the average number of patients working was 12. In our Incubator House, we had five incubators capable of hatching 650 eggs at one time. The stock of poultry consisted of light and heavy breeds, and included Wyandottes, Rhode Island Reds, Black and White Leghorns. Owing to the exposed situation of the Poultry Farm, it was found that these were the varieties which thrived best. This year we were very successful with our turkeys, 48 being hatched. A gratifying feature was the number of hatching eggs and day-old chicks sold, viz., 2,091 hatching eggs and 1,020 day-old chicks.

Altogether, during the year, 1,680 chickens and 48 turkeys were hatched, an increase of 110 on the previous year. At the end of the year, the stock consisted of 28 cockerels, 5 cocks, 191 pullets, 196 hens, 10 ducks, 2 drakes—total, 432 fowls.

PIGGERY.

This department was one of the most profitable in the Colony. The patients received an excellent training in the rearing and preparation for market of the various breeds of pigs. 18 patients enrolled for training, the average number working at one time being 6. The stock at the end of the year numbered 77, as follows:—1 large white boar, 1 large black brood sow, 13 middle white sows, 12 crossed young pigs under six months, 29 under three months, and 21 under six weeks.

GUINEA-PIG DEPARTMENT.

This department was in charge of two patients and we had a steady purchaser in our own County Laboratory. With the increased demand for guinea-pigs and the scarcity of the supply, this seems to be a good outlet for any patient anxious to make a living.

Sold,	89
Stock at end of year,	82

INSTITUTION WORKSHOP.

This department, organised for the carrying out of general Colony repairs, was carried on successfully during the year, patients with previous occupational experience being employed. 8 patients came under this category.

GARAGE.

The garage continued to be worked in conjunction with the Motor Repair Department, all the work in connection with our two motor lorries being done by trainees from this department—a good example of the value of Colony training. To stimulate healthy rivalry, a trainee who had completed his training was put in charge of each of our two lorries. This arrangement has worked very satisfactorily, the lorries always being clean and in good condition. New sliding doors were erected and work very satisfactorily. Our old Wolseley lorry was scrapped and a new 30-cwt. Dennis lorry purchased. It has an orthodox gear change, and for this reason it is a very useful type for teaching the trainees traffic driving.

FARM.

The report on this department is one of steady progress. All the milk was purchased by the Colony and the County Hospital, Blantyre. The stock is a pedigree Ayrshire herd, and we are licensed to produce certified milk (the highest grade). The average marks for the routine veterinary inspection of the stock, byres, &c., reached the high figure of 97 per cent. The whole herd passed the tuberculin test.

We were members of the Scottish Milk Records Association, and the regular examination by the official tester showed that the average butter fat was 4 per cent. for the whole herd, and 8 cows and 2 heifers yielded over 1,000 gallons, the average for the whole herd being 848 gallons. This showed the benefit of regular testing, the rearing from good stock, and the keeping of accurate records. The bacteriological examination of the milk gave the excellent result of only 900 blood heat organisms per c.c., and coliform bacilli were absent in a tenth of a c.c. When you consider that you are allowed to have up to 30,000 bacteria per c.c., the result indicated a high standard of cleanliness.

The quality of the stock is steadily improving, which is shown by the good prices obtained for our young bulls. Early in the year, one was purchased by the Government of Cyprus. To enable us to develop the sale of young stock, our bull shed was divided into stalls with brick flooring and a cement walk.

The staff consists of a Farm Manager, dairymaid, assistant dairymaid, byreman, milkers, 2 ploughmen, and 2 odd men.

Stock at end of year was as follows:—1 stock bull 3 years old, 1 stock bull 1 year old, 3 bull stirks, 43 cows, 38 heifers, 9 heifer calves, 3 bull calves, 5 work horses.

INDUSTRIAL WORKSHOPS.

All the departments of the Industrial Workshops were working at full pressure during the year. The scheme is steadily progressing and, in the near future, the question of extensions will have to be considered. This applies particularly to the Basketmaking Department. Although training is our first consideration, it is gratifying to record a satisfactory financial position. The receipts in the various departments totalled over £1,250.

As in former years, all the trainees were selected cases, *i.e.*, they showed no evidence of active disease and were in fairly good physical condition.

As previously stated, the minimum period for training is 12 months. The trainees work for 6 hours a day, divided into two spells of 3 hours—9-12 and 2-5—and there is an instructor in charge of each department. There is accommodation for 36 trainees, as follows:—Cabinetmaking, 12; motor, 12; boot-repairing, 6; basketmaking, 6.

The question of after-care is at last being seriously considered, and the following report has been prepared for the Committee and the Department of Health:—

"The Sub-Committee on this question, at their last meeting—held on 22nd May—after discussing certain proposals bearing on the establishment of local workshops, continued consideration of the matter in order that there might be prepared and submitted a scheme for the setting up of an experimental workshop in the Middle Ward District.

"The matter has been carefully considered, and the following particulars and suggestions are now submitted for the Committee's consideration:—

"The proposal was for the setting up of a local workshop at, say, Cambuslang, where men who had been trained at Hairmyres could work a certain number of hours each day according to their physical fitness and under the medical supervision of the Tuberculosis Officer.

"Accommodation for six men would be sufficient to begin with. The men would be drawn from a fairly wide area, with Cambuslang as a centre, but it might be desirable to make an arrangement under which men residing at a distance from the workshop would be given an opportunity of a house in the nearest housing scheme, if they so desired.

"*Occupations.*—In the first instance, the occupations would "be confined to those likely to provide regular and sufficient work "and to yield some financial return. In this category, one could "put boot-repairing and carpentry. In the populous districts, "there is more likely to be sufficient work in boot and shoe "repairing. It would be necessary to instal a finishing machine "in this department, but the rest of the work could be done by "hand. In the Carpentry Department, it would be advisable to "proceed cautiously, in view of the fact that any work done on a "large scale would require a certain amount of machinery. "Arrangements could be made to do all the machinery work at "Hairmyres Colony and the assembling could be done at the local "workshop. Any large contracts for the Colony could also be "sub-contracted out. There would be three men only in each of "the sections, making a total of six. Over these men, it would "be necessary to have a foreman, preferably an ex-patient, either "trained in Boot-repairing or Carpentry. The majority of the "trainees, on discharge from the Colony, would, it is thought, "be able to work an eight-hour day. The Instructors at the "Colony would visit the workshops once or twice a week to "supervise the work. In a scheme of this nature, it will be "appreciated that there must be the closest co-operation between "the Colony and the workshop.

"The cost of erecting suitable premises is estimated at £500.

"The capital cost of equipping same is estimated as follows:—

"*Boot Repairing.*

Equipment,	£25	
Tools,	15	
		£40

"*Carpentry Department.*

Tools,	£28	28
		£68

"The annual charges would be—

Loan Charges (repayment of debt and interest),	£45
Taxes, Insurance, &c.,	30
Coal, Light, &c.,	15
Wages of 6 patients at £2 per week,	624
Foreman, say £3 10s. per week,	182
Supervision (including travelling expenses of Instructors from Colony),	70
	£966

"Assuming one-half the men's wages was productive, this "would amount to £403. Subject always to the provisions of the "new Local Government Act, one-half the deficit (£563) would be "met by the State and one-half by the Local Authority. This "would amount to ·06d. per £ in the Public Health Rate.

"It is probably desirable, however, that certain other proposals "should be discussed by the Committee in conjunction with the "foregoing scheme, *e.g.*, the question of the Local Authority "granting an advance of money in suitable cases where a man "had been trained at the Colony and was desirous of setting up, "say, a boot-repairing shop in some part of the Middle Ward "District. Obviously the difficulty in such a case is for the "person concerned to find the necessary money to purchase tools "and a machine. It is understood that these involve an expense "of £30 to £40. It might further be necessary that, for a period, "some financial assistance should be given in such a case so as "to ensure, as in the case of the local workshop scheme, that a "reasonable living wage would be available.

"Another proposal that has been discussed on different occasions "is that of providing a certain number of houses to be attached "to the Hairmyres Colony where men who had completed their "training in the workshops would be given an opportunity of "occupying the houses with their families. The men would "continue to work at the workshops and would therefore be under "the constant supervision of the Medical Superintendent of the "Institution.

"It is suggested, in view of the desirability of taking the "Department of Health along with the District Committee at "the outset, that an interview should be sought with the Depart-"ment at which the various proposals could be discussed. "Obviously this is a matter on which the Local Authority and "the Department should be agreed upon, in principle at all "events."

It is to be hoped that this scheme will be adopted as it is thoroughly comprehensive and deals with every aspect of the problem. As has been previously emphasised, the scheme of training without some arrangement for after-care is very liable to be a failure. particularly in these times of excessive unemployment.

The following table was prepared at the request of the Department of Health, and although quite satisfactory, one feels that the results would have been much better had there been an efficient scheme of after-care.

	Cabinet-making Dept.	Basket-making Dept.	Boot Repairing Dept.	Motor Dept.	Ministry of Pensions.	Civilian.
Number of trainees who have completed training,	21	10	19	42	24	68
Number working at trade in which they received training,	9	6	11	21	14	33
Number working at another trade—						
(*a*) Original occupation,	—	—	—	—	—	—
(*b*) New occupation,	3	2	1	4	2	8
Number failed to find employment,	1	1	3	5	2	8
Poor health,	2	1	1	3	1	6
Dead,	5	—	1	1	1	6
Unable to trace,	1	—	2	8	4	7

Motor Department.—25 patients enrolled for training. All those who had completed their training were successful in obtaining the Driving Certificate of the Royal Scottish Automobile Club. This is a form of training which appeals to a tuberculous man and there is always a waiting list. Our three demonstration cars, an Austin, Darracq, and Ford, although subject to a great deal of wear and tear, were in constant use throughout the year. Our new Dennis lorry and Ford lorry were used for traffic driving. The usual lectures and demonstrations were given on our Wolseley chassis, specially sectioned for the purpose. There was a certain amount of general repair work done in the department.

Cabinetmaking Department.—A large amount of furniture of all descriptions was made in this department, the timbers used being mainly oak, mahogany, and cypress. Veneering was made a special feature this year. To this department particularly would apply the scheme of a village settlement with permanent residence. Our old instructor left to take up a teaching appointment and our new man came with a good experience of furniture making in a leading cabinetmaker's workshop. 22 patients enrolled for training.

Boot-repairing Department.—All the trainees in this department were steadily employed during the year, the average number of repairs being about 50-60 per week. There was an increase in the amount of work done in repairing rubber footwear, crêpe soles, &c. In this department, there were always one or two men with crippled lower limbs as this is one of the few occupations suitable for them. The success of this training is indicated by the undernoted letter received from one of our ex-trainees :—

> "I am in the best of health and have been working since I left "Hairmyres. I am glad to say that I am now a journeyman at "my trade : wages, £2 18s. 11d. per week."

10 patients enrolled for training.

Basketmaking Department. — This department was working at top pressure, especially at Christmas. The turnover could be very much increased if there were more accommodation. A feature of this year was the number of Garden Fêtes and Sales of Work at which we had a stall. This was good advertising and we hope to develop it more fully in future years. All kinds of basketwork were made. There was an increased demand for the more elaborate articles, such as chairs, tables, &c., particularly those made with enamelled cane. Most of the willows used in this department were grown on our own estate. 8 patients enrolled for training.

Hairmyres Colony,
February, 1930.

Veterinary Inspection of Dairy Herds.

The veterinary inspection of dairy herds was carried out by the County Veterinary Inspector and an assistant.

The record shows that 919 dairy herds, containing 19,448 cows, were examined. As on former occasions, samples of milk were drawn from all udders, which, on examination, showed suspicious conditions. In this way 312 samples of milk were taken, and sent to the Bacteriological Laboratory, where, after examination, 39 were found to contain tubercle bacilli, 92 were found to contain other infectious organisms, and 181 gave negative results.

In all cases where infectious organisms were found in the milk samples, certificates were granted by the Veterinary Surgeon, in terms of Section 4 (2) of the Milk and Dairies (Scotland) Act, 1914. Where tubercle bacilli were present, arrangements were made with the owners to have the cows slaughtered immediately, in terms of Article 5 (1) of the Tuberculosis Order, 1925. In all other cases where cows were found to be suffering from "disease liable to infect or contaminate the milk" (*e.g.*, streptococci found in the milk sample), communications were at once issued to the owners pointing out their responsibilities under the Milk and Dairies Act, and inquiring as to the arrangements they were making to comply with the requirements of Section 13 (1) and (2), and Section 24 (1) and (2) of the Act.

Cows with other abnormal conditions of the udder were also recorded, and the results are shown in the following table:—

INSPECTION OF DAIRY HERDS, 1929, CLASSIFIED ACCORDING TO PARISH.

PARISH.	Herds Registered.	Herds Inspected.	Cows Inspected.	Cows with Abnormal Conditions of Udder.						Samples of Milk.			
				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Total.	Number taken.	Number found to contain Tubercle bacilli.	Number found to contain other infectious organisms.	Number negative.
Avondale, - -	141	165	4,208	13	143	4	52	13	225	84	14†	23	47
East Kilbride, -	103	132	3,528	5	167	11	24	4	211	52	5	18	29
Glasford, - -	51	66	1,379	4	48	2	11	6	71	18	4	2	12
Stonehouse, -	30	39	755	1	32	4	7	2	46	9	1	3	5
First Division, -	325	402	9,870	23	390	21	94	25	553	163	24	46	93
Blantyre, - -	21	24	360	1	10	2	3	2	18	8	1	3	4
Bothwell, - -	73	90	1,487	3	38	2	24	3	70	30	3	8	19
Cambuslang, -	22	28	601	2	25	3	4	2	36	16	2	5	9
Cambusnethan, -	50	55	1,123	3	30	2	16	1	52	17	3	5	9
Dalserf, - -	22	29	641	...	25	3	4	...	32	17	...	9	8
Dalziel, - -	6	9	250	...	8	...	1	1	10	3	...	1	2
Hamilton, - -	46	50	1,123	2	40	3	10	18	73	15	2	4	9
Second Division,	240	285	5,585	11	176	15	62	27	291	106	11	35	60
New Monkland,	67	92	1,377	...	16	1	3	1	21	9	...	4	5
Old Monkland, -	30	44	910	1	29	...	10	1	41	17	1	2	14
Shotts, - -	64	96	1,706	3	44	1	19	3	70	17	3	5	9
Third Division, -	161	232	3,993	4	89	2	32	5	132	43	4	11	28
Middle Ward, -	726	919	19,448	38	655	38	188	57	976	312	39‡	92*	181

*These samples were taken from 91 cows. †Two samples also contained other infectious organisms.
‡These samples were taken from 38 cows.

The total figures for abnormal conditions of the udder include 43 cases of suspected tubercle which gave negative results, and are therefore classified as induration.

These abnormal conditions, and the number of cows affected, were as follows:—Tubercle, 38; atrophy, 655; mammitis, 38; induration N.T., 188; and eruption on teats, 57; a total of 976, or 5·02 per cent. of the total cows examined.

MATERNITY AND CHILD WELFARE.

Health Visiting Staff.—There are 17 full-time Nurse Health Visitors, each of whom holds the certificate of the Central Midwives Board, and in addition to the visitation of mothers and infants they act as Assistant Inspectors of Midwives. Part-time assistance is also received from seven District Nursing Associations.

Births Registered.—There were registered the births of 4,994 infants—males, 2,548; and females, 2,446—which is equivalent to a birth-rate of 20·9 per 1,000 of the population. This is the lowest birth-rate which has ever been recorded in the Middle Ward District, and shows a decrease of 1·6 compared with the rate for 1928. The rates for the past five years are shown in Table A, which also shows the rates for decennial periods from 1891 to 1920. There were 316 illegitimate births—males, 166; and females, 150—which is equal to 6·3 per cent. of the total births.

Births Notified.—The number of statutory notifications received was 4,988, and of these 4,789 were notifications of live-born children, the remainder—199—being notifications of stillbirths. The percentage of births notified to births registered was 95·8, excluding stillbirths. In addition, 123 notifications were received as a result of letters addressed to parents, and 117 were brought to our notice by the Nurse Health Visitors, giving a gross total of 5,228. The sources of notifications were as follows:—

Doctors.	Midwives.	Handy-women.	Parents.	Institutions.	Other Sources.	Health Visitors.	Total.
1,312	2,794	9	290	529	177	117	5,228

To the number of births notified there falls to be added the births of 85 infants which occurred in institutions in the Middle Ward, but whose parents resided in areas outwith the Middle Ward District. 80 of these were notified from Bellshill Hospital, 3 from Omoa House, Cleland, and 2 from Thrashbush House, Airdrie.

Table MI shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, deaths registered, and the infantile death-rate, the information being tabulated according to registration districts.

Births Registered and Notified.

Visits made by Nurse Health Visitors and Infantile Mortality Rates for 1929.

Registration Districts.	Births.				Number of Visits.					Attendant at Confinement.						Infant Deaths.	
	Registered.		Notified.			Subsequent.				Doctor alone or with Handy-woman.	Doctor and Midwife.	Midwife.	Handy-woman.	B.B.A	Instit.	Registered.	Rate per 1,000 Births.
	Legitimate.	Illegitimate.	Alive.	Still-born.	First.	Infants.	Mothers.	Special.	Total.								
Avondale,	92	2	89	2	91	949	3	28	1,071	29	39	10	2	3	8	8	85·1
East Kilbride,	93	4	96	2	79	419	36	25	559	63	9	1	—	—	6	4	41·2
Glasford,	18	3	20	—	16	284	—	—	300	4	3	8	—	—	1	—	00·0
Stonehouse,	56	4	62	7	63	827	—	—	890	18	6	36	—	—	3	2	33·3
First Division,	259	13	267	11	249	2,479	39	53	2,820	114	57	55	2	3	18	14	51·4
Blantyre,	431	37	466	25	454	2,896	212	325	3,887	18	93	272	1	17	53	36	76·9
Bothwell,	446	29	480	17	459	4,644	100	796	5,999	21	110	245	—	5	78	39	82·1
Bellshill,	479	36	523	23	542	5,891	88	651	7,172	16	212	224	—	6	84	59	114·5
Holytown,	434	26	456	24	425	3,735	92	427	4,679	65	135	168	1	7	49	34	73·9
Cambuslang,	529	29	545	21	503	4,786	78	632	5,999	164	59	230	4	4	42	54	96·7
Cambusnethan,	286	16	308	12	297	3,473	41	270	4,081	160	66	35	4	6	26	22	72·8
Calderhead,	116	4	121	4	121	582	17	169	889	81	19	8	5	1	7	6	50·0
Dalserf,	101	7	116	2	123	1,490	1	68	1,682	65	19	28	4	—	7	11	101·8
Larkhall,	269	20	291	20	286	3,154	3	231	3,674	34	99	114	4	3	32	17	58·8
Dalziel,	17	—	20	1	8	145	—	—	153	1	2	2	—	1	2	—	00·0
Hamilton,	152	15	169	8	179	2,286	29	160	2,654	24	28	99	—	3	25	22	131·7
Second Division,	3,260	219	3,495	157	3,397	33,082	661	3,729	40,869	649	842	1,425	23	53	405	300	88·7
New Monkland,	315	28	346	7	303	1,943	5	48	2,299	35	63	174	—	3	28	30	87·4
Old Monkland (East),	66	4	69	3	68	357	2	46	473	1	29	22	1	1	14	6	85·7
Do. (Coatbridge)	57	6	66	2	69	272	11	18	370	7	11	35	4	1	11	5	79·3
Do. (West),	275	20	306	8	303	1,358	57	86	1,804	73	39	137	4	3	47	29	98·3
Shotts (East),	107	10	134	1	128	563	—	40	731	73	18	28	1	—	8	10	85·4
Do. (Middle),	61	4	65	—	50	823	2	118	993	38	4	3	2	1	2	7	107·7
Do. (Calderhead),	150	5	149	5	165	844	14	219	1,242	130	17	4	1	—	13	15	96·7
Do. (West),	113	5	116	3	125	1,396	8	279	1,808	80	17	21	1	—	6	8	67·7
Do. (North),	15	2	16	2	5	22	1	—	28	1	1	2	—	—	1	2	117·6
Third Division,	1,159	84	1,267	31	1,216	7,578	100	854	9,748	438	199	426	14	9	130	112	90·1
Total,	4,678	316	5,029	199	4,862	43,139	800	4,636	53,437	1,201	1,098	1,906	39	65	553	426	85·3
	4,994		5,228														

Reference to the table shows that the total number of domiciliary visits made by the staff during the year was 53,437, an increase of 2,790 compared with the previous year. The special visits referred to numbered 4,636, and were made in connection with the following conditions:—Ante-natal cases, 2,444; infant death inquiries, 152; ophthalmia neonatorum, 956; squint, 482; puerperal fever, 52; whooping-cough, 5; adopted babies (first and re-visits), 144; ear, nose, and throat, 302; inquiries regarding accounts under the Midwives Act, 99.

Attendance at Confinement.—Particulars connected with 4,668 live infants have been recorded. Of this number it has been found that 1,164 (24·9 per cent.) were attended by medical practitioners alone, or assisted by neighbours or relatives; 1,024 (21·9 per cent.) by doctors assisted by certified midwives; 1,867 (39·9 per cent.) by certified midwives; 39 (0·8 per cent.) by women not on the midwives' roll; 509 (10·9 per cent.) occurred in institutions; and in the case of 65 (1·3 per cent.) the birth took place before the arrival of an attendant.

Of the 199 still-births notified, particulars of 194 have been recorded, and the attendants at birth in these were as follows:—74 (38·1 per cent.) by doctors and midwives; 37 (19·0 per cent.) by doctors alone, or assisted by an unqualified person; 39 (20·1 per cent.) by midwives alone; and 44 (22·6 per cent.) in institutions.

Comparison with the previous years shows that there is remarkably little change in the figure giving the classification of the attendants at birth.

		1925	1926	1927	1928	1929	
Cases attended by	Midwives,	43·0	39·9	39·2	40·6	39·2	per cent.
Do.	Doctors and Midwives,	22·6	22·4	23·0	21·8	22·5	„
Do.	Doctors,	24·5	25·1	22·8	23·2	24·7	„
Do.	Handywomen,	0·6	0·6	1·2	1·1	0·8	„
Do.	Institutions,	8·2	11·1	12·6	12·0	11·3	„
	B.B.A.,	0·7	0·6	0·8	1·0	1·3	„

Feeding at Age of Six Months.—4,906 records, relating to infants born between July, 1928, and June, 1929, were investigated to determine the feeding at the age of six months, and the results were classified as follows:—Wholly breast fed, 2,553 (52·0 per cent.);

partially breast fed, 202 (4·1 per cent.); artificially fed, 1,515 (30·8 per cent.); died or removed, 589 (12·0 per cent.); and information incomplete, 47 (0·9 per cent.).

Infantile Mortality.

Deaths of infants under the age of one year numbered 426, which is equivalent to an infantile mortality rate of 85·3 per 1,000 births, compared with 91·23 for the previous year. The infantile mortality rate in each registration district is set forth in Table MI.

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

TABLE M II.

Cause of Death.	Age Periods.										Rate per 1,000 Births.
	Weeks.				Total.	Months.				Total.	
	-1	1-2	2-3	3-4	-4	1-3	3-6	6-9	9-12	-12	
1. Prematurity,	59	6	1	5	71	9	1	—	—	81	16·2
Congenital Malformation,	6	2	2	2	12	6	4	2	—	24	4·8
Congenital Heart,	4	1	—	—	5	1	—	—	—	6	1·2
Atelectasis,	5	—	—	—	5	—	—	—	—	5	1·0
Injury at Birth,	9	1	—	—	10	—	—	—	—	10	2·0
2. Atrophy, Debility, and Marasmus,	23	15	6	6	50	5	11	2	4	72	14·4
3. Diarrhœa,	—	1	—	—	1	4	10	10	5	30	6·0
4. Pneumonia,	1	—	2	1	4	4	18	16	18	60	12·0
Bronchitis,	—	—	2	1	3	6	9	7	5	30	6·0
Other Respiratory Diseases,	2	—	—	—	2	—	2	3	—	7	1·4
5. Tuberculosis— Meningeal,	—	—	—	—	—	—	—	1	1	2	0·4
Abdominal,	—	—	—	—	—	—	—	—	1	1	0·2
6. Convulsions,	6	1	—	1	8	3	4	1	1	17	3·4
Meningitis,	—	—	—	—	—	—	3	2	5	10	2·0
7. Measles,	—	—	—	—	—	—	—	1	1	2	0·4
Whooping-cough,	—	—	—	—	—	9	4	8	14	35	7·0
Diphtheria,	—	—	—	—	—	1	—	1	—	2	0·4
Erysipelas,	—	—	—	—	—	—	1	—	1	2	0·4
8. Syphilis,	—	—	—	—	—	1	—	—	—	1	0·2
10. All Other Causes,	8	—	—	1	9	2	6	7	5	29	5·8
	123	27	13	17	180	51	73	61	61	426	85·3
Rate per 1,000 births,	24·6	5·4	2·6	3·4	36·0	10·2	14·6	12·2	12·2	85·3	

Trend of Infantile Mortality from certain specified causes from 1911-1929—*rates per* 1,000 *births.*

	Birth Rate	Diarrhœa and Enteritis.	Other Digestive Diseases.	Measles	Whooping Cough.	Pneumonia.	Bronchitis.	Other Respiratory Diseases.	Infantile Death Rate.	
QUINQUENNIUM.										
1911-15 (Average)	7033	18·5	3·3	3·6	8·8	15·4	6·7	1·02	118·2	(Average)
1916-20 (,,)	6605	13·2	1 8	3·3	5 8	12·4	6·7	1·02	102·6	(,,)
1921-25 (,,)	6506	8·9	1·5	2·4	7·1	10·4	5·4	0·74	92·4	(,,)
ANNUAL.										
1926	5928	6·4	0.84	1·5	2·8	9·1	4·9	0·34	82·4	(Actual)
1927	5640	5·5	0 88	1·1	3·01	15·8	4·4	0·70	87·4	(,,)
1928	5382	7·2	1·40	5·5	9·08	9·3	4·8	0·93	91.2	(,,)
1929	4994	6·03	0·40	0·40	7·0	12·06	6·03	1·40	85·3	(,,)

The above table shows the definite fall in deaths from diarrhœa and enteritis (from 18·5 to 6·03), a fall of 67·4 per cent., and from other digestive diseases (3·3 to 0·40), a fall of 87·9 per cent., while the fall in the total infantile deaths from 1911-29 was 27·9 per cent. These two categories are those which come under maternity and child welfare treatment. The death-rates from measles, whooping-cough, and respiratory diseases still show no definite downward trend.

Analysis of Deaths of 131 *Infants under* 10 *days old with regard to health of mother.*—In 70 of the 131 cases it is doubtful if any treatment of the mother would have prevented the early death of the child. The diseases from which these mothers suffered were as follows:—Hydramnios, 1; ante-partum hæmorrhage, 10; phthisis, 2; and acute influenza, 6. 30 cases no definite ill-health or abnormality of the mother were recorded. In addition there were 21 children born with malformations which were the causes of death. In 61 cases the mothers were suffering from diseases or complications of pregnancy, which could possibly have been prevented, or at least ameliorated by treatment, if medical advice had been sought early enough. These mothers were suffering from the following diseases or complications of pregnancy:—Albuminuria with œdema, 15; eclampsia, 2; hyperemesis, 4; pyelitis, 4; anæmia and debility, 22; and complications of labour, 14.

Maternal Mortality.

The maternal deaths, including 14 from puerperal fever, numbered 25, which is a decrease of 9 compared with the previous year. The death-rate of mothers per 1,000 births was 5·0, the lowest for the past ten years.

It will be observed that the maternal mortality rate is calculated on the deaths ascribable to diseases and accidents peculiar to pregnancy and parturition and does not take account of the considerable number of mothers who die during pregnancy or shortly thereafter from other associated causes.

In Table M III the group-causes, together with the number of deaths referable thereto for each year since 1910, are shown. The registered deaths and the birth and death-rates per 1,000 births are also given.

Investigation of Maternal Deaths.—The Local Authority adopted the proposal of the Department of Health to investigate maternal deaths occurring in the District, and made arrangements with local Registrars to furnish a special return of the deaths of married women during pregnancy or within four weeks thereafter. The procedure to be followed was explained to medical practitioners in a circular letter, dated 27/9/29, and the investigation began on 1st October, 1929. The number of enquiries made under this scheme will not represent the deaths on which the maternal mortality rate is based because (1) there will be included the deaths of mothers from causes other than those peculiar to pregnancy and childbirth, and (2) there will be excluded the deaths of unmarried mothers from all causes.

Three maternal deaths were recorded after October 1st, and reports of these were transmitted to the Department of Health.

Maternal Mortality since 1910.—The principal statistics relating to maternal mortality during the past 20 years are set forth in Table M III. Grouped in five-yearly periods the figures show a fall in the rate for 1925-29 as compared with 1920-24; but the position is worse than it was between 1910 and 1919. The problem of an excessive number of deaths among mothers remains and calls for further administrative action.

TABLE M III.—MATERNAL DEATHS FOR EACH YEAR SINCE 1910, ARRANGED ACCORDING TO GROUP CAUSES; NUMBER OF BIRTHS, BIRTH-RATES, AND MATERNAL DEATH-RATES EXPRESSED PER 1,000 BIRTHS.

Registered Cause.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Puerperal Sepsis,	21	9	13	10	13	7	10	10	7	15	23	25	20	17	15	19	16	20	25	14
Albuminuria of Pregnancy and Eclampsia,	5	4	1	4	3	4	6	3	6	7	5	5	10	10	8	6	7	5	2	1
Hæmorrhage,	7	7	5	11	5	8	6	3	2	4	6	4	11	3	3	3	5	4	3	3
Cardiac Failure and Shock,	2	3	2	4	4	2	3	—	3	2	—	6	6	6	4	1	2	1	1	2
Abortion,	—	3	2	2	3	1	—	—	1	2	1	—	2	1	—	1	—	1	1	—
Toxæmia of Pregnancy,	3	—	1	4	3	1	2	1	—	—	2	3	1	5	1	2	1	—	1	2
Other Diseases and Accidents of Pregnancy,	3	4	7	4	5	10	8	4	4	7	7	2	4	8	3	7	8	2	1	3
Total,	41	30	31	39	36	33	35	21	23	37	44	45	54	50	34	39	39	33	34	25
Registered Births,	7,309	6,981	7,111	7,001	7,388	6,684	6,572	6,072	6,420	6,410	7,562	7,023	6,364	6,218	6,251	6,176	5,928	5,640	5,382	4,994
Birth-rates,	36·1	34·3	34·9	33·8	35·3	31·9	31·4	28·6	30·2	29·8	35·0	32·1	28·3	27·6	26·3	26	25	23·9	22·5	20·9
Death-rate per 1,000 births (Puerperal Sepsis),	2·87	1·28	1·82	1·42	1·75	1·04	1·52	1·64	1·09	2·34	3·04	3·56	3·14	2·73	2·39	3.07	2·69	3·5	4·64	2·80
Death-rate per 1,000 births (excluding Puerperal Sepsis),	2·73	3·00	2·53	4·14	3·11	3·89	3·80	1·81	2·49	3·43	2·77	2·84	5·34	5·31	3·03	3·23	3·88	2·3	1·67	2·20
Death-rate per 1,000 births *Total*,	5·60	4·29	4·35	5·57	4·86	4·93	5·32	3·45	3·58	5·77	5·81	6·40	8·48	8·04	5·43	6·31	6.57	5·85	6·31	5·00
			4·93				4·61					6·83					6·00			

The other outstanding conclusion to be drawn from the table is that puerperal fever accounts for almost half (42 per cent.) of the deaths. During the past 20 years active steps for the prevention and treatment of this disease have already been taken in the Middle Ward, and these efforts will be rendered more effective by the regulations for the notification of all febrile conditions arising within 21 days of childbirth.

Maternal Deaths during 1929.—Eleven deaths were ascribed to non-septic causes, and the history of these cases is briefly described in the following notes :—

NON-SEPTIC (11 CASES).

Post-Partum Hæmorrhage (3 *cases*)—

An 8 para, midwife conducted confinement, post-partum hæmorrhage, doctor called, died four hours after confinement.

A 4 para, in hospital, labour induced on account of heart disease, secondary post-partum hæmorrhage, died six days after confinement.

A 13 para, in hospital, labour induced on account of previous difficult labours, port-partum hæmorrhage, died four days after confinement.

Obstructed and Difficult Labour (3 cases)—

A 3 para, contracted pelvis, abnormally large child, chloroform and forceps, eight stitches in perineum, died at home three days after confinement, cardiac debility.

A 10 para, impacted breech, failed forceps, died undelivered soon after admission to hospital, exhaustion and shock.

An 8 para, shoulder presentation, failure to deliver, rupture of uterus, admitted to hospital, died soon thereafter, exhaustion and shock.

Toxæmias of Pregnancy (3 *cases*)—

A 2 para admitted to County Hospital, Motherwell, as influenzal pneumonia, seven months pregnant, died 5 days later, certified cause hyperemesis gravidarum.

An 11 para, excessive vomiting when 3 months pregnant, treated at home for a fortnight, admitted to hospital, temporary improvement followed by recrudescence, induction of abortion, died from toxæmia.

A 4 para, albuminuria discovered by Health Visitor at seven months, admitted to hospital, discharged free of albumen and with no symptoms after 14 days, readmitted 12 days later with eclampsia, confined following day and died shortly thereafter—puerperal eclampsia.

Pulmonary Embolism (2 *cases*)—

A 4 para, normal confinement, and puerperium, sudden death at home on 5th day.

A 6 para, premature normal confinement at seven months, normal puerperium, sudden death on 7th day.

Septic Causes (14 Cases).

In 14 instances death was ascribed to septic causes and the cases are thus briefly recorded :—

A 2 para, general good health, comfortable home, B.B.A., no trauma, history of recurrent septic tonsillitis, to hospital on 10th day of illness.

A 2 para, profoundly anæmic, chloroform and pituitrin, no trauma, to hospital on 8th day, non-septic thrombo-phlebitis, embolism.

A 2 para, general health fair, comfortable home, chloroform and forceps, no trauma, to hospital on 3rd day, general peritonitis.

A 2 para, general health poor, single apartment, chloroform and forceps, perineum intact, to hospital on 4th day, puerperal fever.

A 1 para, not strong, satisfactory home, chloroform and forceps, perineum intact, died at home on 6th day, septic peritonitis.

A 4 para, incomplete information, doctor in attendance, puerperal sepsis at previous confinement, to hospital on 13th day of illness, puerperal septicæmia.

A 1 para, hyperemesis and contracted pelvis, craniotomy on day of admission to hospital, acute sepsis.

A 5 para, in good health, single apartment, normal rapid confinement by midwife, to hospital on 3rd day of illness, streptococcæmia.

A multipara, lateral placenta prævia, pyelitis, laceration of vagina on admission to Maternity Hospital, normal confinement in hospital—puerperal fever, pleural effusion.

A 1 para, in good health, single apartment, forceps delivery at home, torn perineum, to hospital on 5th day of illness, puerperal septicæmia.

A 4 para, in good health, single apartment, B.B.A., admitted to hospital 23 days later as case of pleurisy, death certificate puerperal fever.

A 5 para, in good health, normal confinement by midwife in good home, to hospital on 2nd day of illness streptococcæmia.

A 3 para, in good health, satisfactory home, normal confinement by midwife, practically a B.B.A., severe and obstinate constipation, to hospital on 1st day, puerperal fever.

A 1 para, vaginal discharge and constipation, satisfactory home, difficult labour, chloroform and forceps, phlegmasia, to hospital on 11th day, death certificate puerperal fever.

Hospital Treatment and Maternal Mortality.

Table M IV shows 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 since the year 1916 :—

TABLE M IV.

Year.	Total Births Notified.	Institution Births.	Maternal Deaths.	Institution Confinements per 1,000 Births.	Maternal Mortality per 1,000 Births.
1916	6,483	48	35	7·40	5·39
1917	5,944	15	21	2·52	3·53
1918	6,385	37	23	5·79	3·60
1919	6,308	58	37	9·19	5·86
1920	7,718	174	44	22·54	5·70
1921	7,229	267	45	36·92	6·22
1922	6,478	238	54	36·74	8·33
1923	6,245	314	50	50·28	8·00
1924	6,343	383	34	60·38	5·36
1925	6,343	523	39	82·45	6·14
1926	6,115	647	39	105·80	6·37
1927	5,714	676	33	118·30	5·77
1928	5,619	645	34	114·78	6·05
1929	5.228	529	25	101·18	4·78

Puerperal Fever and Pyrexia.

In August the Department of Health issued the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations (Scotland), 1929. These Regulations came into operation on the 1st

October and required the notification of cases of puerperal pyrexia in addition to the present notification of puerperal fever under the Infectious Disease (Notification) Act, 1889.

In compliance with the Regulations, the following circular letter was addressed to all practitioners :—

"Hamilton, 28th October, 1929.

"SIR,

"NOTIFICATION OF PUERPERAL PYREXIA.

"On 21st September last I sent, for your information, a copy of the Regulations made by the Department of Health for Scotland requiring as from 1st October notification by a medical practitioner of all cases of puerperal pyrexia that occur in his practice (*in addition* to the present notification of puerperal fever).

"Puerperal pyrexia is defined in the Regulations as 'Any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease (Notification) Act, 1889), occurring in a woman within twenty-one days after childbirth or miscarriage in which a temperature of 100·4°F. (38° Centigrade) or more has been sustained during a period of tweny-four hours, or has recurred during that period.' Medical practitioners are thus under obligation to notify to the Medical Officer of Health all cases of pyrexia during the puerperium, irrespective of the cause to which the fever may be attributed.

"It should be understood that the main purpose of notification is not to accumulate statistical data but to secure the co-operation of the medical attendant in the use of the treatment and preventive facilities provided by the Local Authority.

"In addition to a form for the notification of puerperal pyrexia the Regulations provide an amended form for notification of puerperal fever. The forms enable practitioners, when notifying a case of either puerperal fever or puerperal pyrexia, to indicate whether any assistance in dealing with the case is desired. To meet the convenience of practitioners the form of notification for all infectious diseases has been modified to include the additional information, and a supply of the amended forms is enclosed. The assistance that the Local Authority have provided for medical practitioners in the area *is shown in the accompanying statement.*

"In a case of urgency a telephone message or telegram should be sent to the Medical Officer of Health, followed by the notification through the usual channels.

"I am, SIR,

"Your obedient Servant,

"(Signed) J. HUME PATTERSON,

"*Medical Officer of Health.*"

The statement accompanying the above letter, setting forth the arrangements made to assist practitioners in the diagnosis and treatment of puerperal fever and puerperal pyrexia is as follows :—

COUNTY OF LANARK.

MATERNITY AND CHILD WELFARE SCHEME.

Arrangements for the Diagnosis and Treatment of Puerperal Fever and Puerperal Pyrexia.

Consultant Service.—As previously arranged, Dr. Reid, Physician-Superintendent, County Hospital, Motherwell (Tel. No., Motherwell 253) will be available to act as a consultant in all cases of doubtful illness.

Bacteriological Examinations.—These will be carried out in the Public Health Laboratory, County Buildings, Hamilton (Tel. No., Hamilton 203). Special outfits have been provided and arrangements made for specimens to be taken by Dr. Reid, or a member of the medical staff, where this is requested. As it is preferable to have specimens obtained by a uniform method, this procedure will no doubt commend itself to practitioners in most instances.

Skilled Nursing at Home.—The District Nursing Associations have agreed to carry out the nursing of patients who are fit to be treated at home, and in cases of necessity the cost of these services will be borne by the Local Authority.

Hospital Treatment.—Beds have been reserved in the County Hospital, Motherwell (Tel. No. 253) for the treatment of all febrile conditions occurring during the puerperium. There is accommodation not only for patients who are frankly ill, but also for cases not yet diagnosed and requiring further observation. Dr. Samuel J. Cameron is Consulting Obstetrician to the Hospital.

Public Health Department,
District Offices,
Hamilton, 28/10/29.

The total number of notifications of puerperal fever under the old Regulations, *i.e.*, during the first nine months of the year was 85 Under the 1929 Regulations there were 9 notifications of puerperal fever and 7 of puerperal pyrexia, *i.e.*, in all puerperal fever, 94; puerperal pyrexia, 7.

Puerperal pyrexia will be considered separately.

The following table shows the incidence and death-rates of puerperal fever in comparison with similar rates for the previous decennium :—

TABLE M V.

Year.	Total Cases.	Rate per 1,000 Births.	No. of Deaths.	Fatality Rate.	Death-Rate per 1,000 Births.
1919	37	5·7	15	40·5	2·3
1920	60	7·9	25	41·6	3·3
1921	68	9·6	25	36·7	3·5
1922	69	10·8	20	28·9	3·1
1923	62	9·9	17	27·4	2·7
1924	54	8·6	15	27·7	2·4
1925	53	8·5	19	35·8	3·0
1926	55	9·2	16	29·0	2·7
1927	82	14·5	20	24·3	3·5
1928	106	19·6	25	23·5	4·6
1929	94	18·8	13	13·8	2·6

The comparative value of the figures for 1929 may and possibly are vitiated by the Department of Health, 1929, Regulations, but the degree of error is impossible to assess, and, in view of the small number of notifications of puerperal pyrexia, is probably very little.

The actual number of cases, 94, is the second highest recorded, being 12 less than the figures for 1928. The gradual increase in this figure throughout the decennium quoted, taken in conjunction with the fatality rate of the corresponding decennium is evidence that the notification of this disease is being better observed by practitioners generally than it was in previous years. The notifications now are a much more exact indication of incidence of puerperal fever and not as formerly merely intimations of the very ill, the dying, and the dead.

Hospital Treatment.—75, or 79·8 per cent., of all cases received treatment in Motherwell Hospital; 1 in St. Andrew's Nursing Home, Glasgow; and 1 in Belvidere Fever Hospital, Glasgow. In Motherwell Hospital the diagnosis was revised in 4 cases, 2 pelvic cellulitis, 1 negative and 1 pyelitis.

The following tables give an analysis of the cases and deaths :—

(1) Attendance at Birth.

Attendant at Birth.	Births Notified.	Total. Cases.	Rate per 1,000 Births.	No. of Deaths.	Fatality Rate.	Death-Rate per 1,000 Births.
Doctor, - - -	1,455	21	14·4	1	4·8	0·7
Doctor and Midwife,	1,070	26	24·3	7	26·9	6·5
Midwife, - -	2,090	25	12·0	3	12·0	1·4
Handywoman, -	27	3	111·1	—	—	—
Institution, -	529	11	20·8	1	9·1	1·9
B.B.A., - -	57	*8	140·4	1	12·5	17·5

* 1 abortion with no attendant recorded is included.

(2) Age Distribution.

Cases. - -	-20	20-25	25-30	30-35	35-40	40-45	45
94	7	26	21	23	9	5	3
Deaths.							
13	—	1	2	6	1	3	—

(3) Number of Pregnancy.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Over 12	Not Stated
Cases, 94.	34	12	8	6	9	6	4	2	4	—	2	1	1	5
Deaths, 13.	2	4	1	2	2	—	—	—	—	—	—	—	—	2

(4) Duration of Pregnancy.

	Full-time.	Premature.	Miscarriage.	Abortion.	Not stated.
Cases, 94.	74	5	2	6	7
Deaths, 13.	11	—	—	—	2
Fatality Rate,	14·8	—	—	—	28·5

(5) Nature of Birth.

	All Cases.	Fatal Cases.
Natural Birth, - - -	48	6
Abortion, - - -	6	—
Miscarriage, - - -	2	—
Instrumental Birth, - -	30	6
Still-Birth, - - -	3	—
Cæsarean Section, - -	1	—
Craniotomy, - - -	1	—
Adherent Placenta, - -	1	—
Not stated, - - -	2	1
	94	13

(6) State of Infant at Birth.

	All Cases.	Fatal Cases.
Alive,	59	9
Dead,	9	4

No information is available in 17 cases, while 6 abortions, 2 miscarriages, and 1 case of hydatidiform mole are not included.

(7) Bacteriological Findings in Blood.

Streptococcus (Beta Type),	5
Streptococcus (Gamma Type),	1
Staphylococcus Albus,	24
Staphylococcus Aureus,	2
Spore-bearing bacillus,	1
No growth,	25

Puerperal Pyrexia—7 cases.

The following table is prepared by extracting from the records the salient features of each case :—

Cases.	Pregnancy.	Gestation.	Attendant at Birth.	Nature of Birth.	Date of Confinement.	Onset of Fever.	Date of Notification.	Treated in Motherwell Hospital or at Home.	Revised Diagnosis.	Remarks.
1.	Not Stated	F.T.	Bellshill Hospital.	Natural Birth.	6/10/29	6/10/29	7/10/29	Retained in Bellshill Hospital.	...	Had pyelitis during pregnancy was discharged well on 15/10/29.
2.	1st.	F.T.	Dr.	Normal (Ch. Cl 3, and Inst.)	11/10/29	19/10/29	20/10/29	Adm. Motherwell Hospital 21/10/29	Puerperal Fever.	Perineum ruptured. Discharged well.
3.	2nd.	F.T.	Dr.	Normal (Ch. Cl. 2, and Inst.)	9/11/29	13/11/29	16/11/29	At Home.	...	Perineum ruptured. Pyrexia persisted for 3 days. Thereafter well.
4.	2nd.	F.T.	M.W.	Natural Birth.	27/11/29	30/11/29	9/12/29	Adm. Motherwell Hospital 8/12/29	...	Transient Albuminuria during pregnancy. Ruptured Perineum. Still in Motherwell Hospital at end of year.
5.	5th.	F.T.	M.W.	Natural Birth.	6/12/29	9/12/29	10/12/29	At Home.	...	Well.
6.	1st.	F.T.	M.W.	Natural Birth.	19/12/29	22/12/29	26/12/29	Adm. Motherwell Hospital 25/12/29	Puerperal Fever.	Suffered from Psoriasis. Discharged well from Motherwell Hospital.
7.	2nd.	P.B. at $\frac{7}{12}$	Dr.	B.B.A.	25/12/29	Prior to Conf.	26/12/29	At Home.	Pulmonary Tuberculosis.	Spit + Pulm. T.B. was exam. prior to conf. In bed prostrated with hectic fever and signs of advanced Pulm. T.B. San. Treatment refused. Died on 3/1/30, and death certified as Pulm. T.B.

Still-Births.

The total number of notifications of still-births received during the year was 199, and those were received from :—Doctors, 50; midwives, 95; health visitors, 6; and institutions, 48.

Inquiries by the Nurse Health Visitors were made into 194 cases, and the following particulars obtained :—

Maturity.—The births occurred at full term in 108 cases, in 23 at the eighth month, in 45 at the seventh month, and 5 at the sixth month; in 13 cases the duration of pregnancy was indefinite.

Attendant at Birth.—The attendant at birth was as follows :—Doctor and midwife, 74; doctor alone or with unqualified woman, 37; midwife alone, 39; and institutional cases numbered 44.

Nature of Confinement.—The confinement was ascertained to have been normal in 132 cases and abnormal in 62, instrumental delivery taking place in 47 of the latter.

The pregnancy at which still-birth occurred is shown as follows :—

Pregnancy, -	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th and over.	Not stated.	Total.
Still-births, -	51	23	22	19	22	15	9	4	5	6	15	3	194

Previous Still-births.—In 151 cases no previous still-births had occurred; in the remaining 43 cases previous still-births had taken place, viz. :—1 in 23 cases; 2 in 11; 3 in 6; 4 in 2; and 5 in 1.

Employment of Mother.—Only in 5 cases were the mothers engaged in other than domestic duties.

Age Distribution—

-20	20-25	25-30	30-35	35-40	40-45	Over 45	Unstated.	Total.
1	40	48	45	31	16	1	12	194

Health of Mother during Pregnancy—

Good, 102; fair, 60; poor, 23; unstated, 9; total, 194.

Probable Cause of Still-birth.—In the total of 194 there were 66 cases in which there was no obvious cause for the still-birth—of the remainder the following conditions were noted and might explain the still-birth :—Mal-development of fœtus, 8; abnormal presentation, 21; contracted pelvis, 9; accident during pregnancy, 10; hydramnios, 2; difficult labour, 9; alcoholism, 1; cardiac disease of mother, 1; albuminuria and eclampsia, 21; abnormalities of the cord, 7; antepartum hæmorrhage, 12; large child, 8; prematurity, 17; diabetes, 1; and hyperemesis, 1.

Ophthalmia Neonatorum and Discharging Eyes.

Notified Cases of Ophthalmia Neonatorum.—Cases, 73; rate per 1,000 births, 14·6; admission to hospital, 17.

Of the total cases reported, 46 (63 per cent.) were notified by doctors; 12 (16·4 per cent.) by certified midwives; 9 (12·3 per cent.) by both doctors and midwives; 5 were notified from the County Hospital, Bellshill, and 1 from the County Hospital, Motherwell. In 36 cases a doctor alone, or with the assistance of a neighbour, was in attendance at the confinement; that is, the disease developed in connection with 2·9 per cent. of the total number of confinements conducted by doctors. Doctors and midwives were present at the birth in 5 cases, representing 0·4 per cent. of the total cases attended by doctors and midwives. A certified midwife alone was present at the birth in 21 cases, which is 1·1 per cent. of the total midwives' cases. Six cases occurred in institutions, and in 5 instances the confinement took place before the arrival of an attendant.

In the following table the 73 notified cases are classified according to the severity of the disease and to the bacteriological findings :—

	Slight.	Moderate.	Severe.	Total.
Gonococcal,	1	—	2	3
Other organisms,	21	7	—	28
Pus but no organisms,	18	3	—	21
No pus no bacteria,	4	—	—	4
No swab,	17	—	—	17
	61	10	2	73

Discharging Eyes.—The number of cases of discharging eyes discovered was 127. The attendant at birth was as follows :—Doctor alone or with the assistance of a neighbour, 75; doctor and midwife,

15; midwife alone, 30; and handywoman, 1. In 6 cases the births occurred in institutions.

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

	Slight.	Moderate.	Severe.	Total.
Gonococcal, - - - -	1	—	—	1
Other organisms, - - -	88	4	—	92
Pus but no organisms, - -	23	2	—	25
No pus no bacteria, - -	3	—	—	3
No swab, - - - -	6	—	—	6
	121	6	—	127

In the above table it will be noted that one of the cases of discharging eyes found in the district proved to have a positive gonococcal eye smear. Clinically the case was mild in type and hospital treatment was refused. The eyes were treated under the supervision of the family practitioner and the condition cleared up in a few days, leaving no disability.

The following table shows the total number of cases of ophthalmia neonatorum and discharging eyes for the past three years, according to districts. Figures in brackets give the number of cases of discharging eyes:—

Parish.	1929.	1928.	1927.
Avondale, -	—	2 (*1*)	1
East Kilbride,	1	1	2
Glasford, -	—	—	1
Stonehouse, -	—	—	1
Blantyre, -	4 (*3*)	9 (*1*)	15
Bothwell, -	33 (*15*)	38 (*11*)	48
Cambuslang, -	29 (*18*)	26 (*7*)	28
Cambusnethan,	31 (*20*)	15 (*8*)	17
Dalserf, -	14 (*14*)	21 (*12*)	16
Dalziel, -	1	1	—
Hamilton, -	2 (*1*)	7 (*2*)	4
New Monkland,	3 (*2*)	4 (*1*)	5
Old Monkland,	6 (*4*)	12 (*1*)	10
Shotts, -	76 (*50*)	38 (*25*)	26
	200 (*127*)	174 (*69*)	174

It will be noted that in the Shotts area there has been in the past year a marked increase in the number of cases recorded, both notified and unnotified. This is probably due, at least in large part, to the fact that in 1928 two cases of blindness in that district, as a result of ophthalmia neonatorum, were notified, stimulating a much closer supervision of all cases of abnormality of the eyes, however slight, in newly-born infants. In all other districts it will be seen that the numbers remain fairly constant, but it is probable that a similar close examination of all infants would result in an increase in the number of cases of slight inflammation of the eyes being recorded.

In two instances some degree of impairment of vision resulted and the cases are briefly described in the following notes :—

Baby O'H, born 18/8/28, one of twins. The confinement was conducted by a medical practitioner assisted by a handywoman. The Nurse Health Visitor five days after the confinement found the baby had slightly discharging eyes. No notification of ophthalmia was made, and a smear taken proved negative for gonococcus. The eyes were treated and were reported as normal on 27/8/28. The right eye again became moist on 4/9/28 and was treated by the Nurse Health Visitor till 15/9/28, when it was again reported as clear. The child did not thrive and was admitted to Blantyre Hospital on 24/11/28 as a case of acute marasmus. No indication of any abnormality in the eye was noted prior to admission. While in hospital it was observed that the right eye showed evidence of chronic iritis. Treatment was directed to the child's general condition owing to its severe marasmus and no treatment indicated to eye. The child was discharged on 2/7/29 in an improved general condition. On 5/7/29 it was sent for examination to the Eye Infirmary, Glasgow, where it was found that the child was suffering from buphthalmos (enlarged eyeball) following on irido-cyclitis, due to perforation of the cornea at the upper margin due to the ophthalmia. The specialist further stated that the original case was probably one of true ophthalmia leading in a marasmic baby to perforating ulceration of the cornea in a situation in the upper margin, which would be difficult to detect unless to the expert observer. These facts associated with the extreme marasmus of the baby would explain how the eye condition was not observed by the mother or Public Health staff prior to admission to Blantyre Hospital.

Baby S, born 21/5/29. The confinement was conducted by a midwife who carried out the usual prophylactic measure to the eyes. On the second day of the puerperium the midwife noticed the onset of discharge from the eye and immediately called in a medical practitioner, who diagnosed and notified the case as one of ophthalmia neonatorum, but did not take a swab. Treatment prescribed was carried out by the midwife and later by the District Nurse. The Health Visitor visited the patient on three occasions—the 25th, 27th, and 29th May—but was unable to get a swab, and as the eyes appeared to be progressing favourably under treatment and the case was being attended by a doctor she did not press for hospital treatment. On 1/6/29 the eye got suddenly worse, with evidence of ulceration of the cornea, and the child was immediately sent to Motherwell Hospital, where a diagnosis of severe ophthalmia was made. On dismissal, the patient was reported to have defective vision in one eye and blindness in the other. The course of events in the case would suggest that in an apparently fairly mild case ulceration occurred suddenly, rapidly, and without warning.

Intimation of the occurrence of blindness was made to the Department of Health, as required by their circular letter, dated 16th July, 1921.

Ante-natal Cases.

The importance of ante-natal care and supervision is fully appreciated by the Local Authority, and it is hoped that some development of the work may be possible. During the year the activities of the department in this connection may be summarised as follows :—

The Nurse Health Visitors made 2,444 domiciliary visits to expectant mothers, compared with 1,948 in the previous year.

At the Child Welfare Centres 479 patients attended for the first time, and the total visits numbered 991, the total attendances during 1928 being 759.

Ante-natal cases were admitted to the various institutions as follows :—County Hospital, Bellshill, 167; Calderbank Convalescent

Home, 65 (including 17 cases transferred from Bellshill Hospital); and Blantyre Hospital, 38 (including 4 transferred from Bellshill Hospital.

At the out-patient department, Bellshill Hospital, 318 expectant mothers presented themselves for examination.

Ante-natal Albuminuria.

The total number of examinations of urine from expectant mothers was 1,260. Of these, 287 specimens were found to contain albumen.

The following statement indicates where the examinations were made and by whom the specimens were sent:—

Examined at	By whom sent.	Total No. of Examinations.	No. containing albumen.
County Laboratory,	Midwives,	104	53
	Public Health Staff,	51	28
Ante-Natal Clinics,	Midwives,	263	42
	Brought or sent by E.M.,	579	122
		997	245

Of the 104 specimens sent to Laboratory for examination, one midwife was personally responsible for 82, and 5 others for the remainder. No information is available in regard to the 263 specimens sent to the Centres. It is evident that midwives generally fail to have the urine of their patients examined as a routine measure. The total number recorded, 367, is a small fraction of the 2,090 confinements attended by midwives. It may be said in extenuation that (1) some midwives may examine urine personally, but this practice is known to be uncommon in the district, and (2) that many midwives are never engaged until the day of confinement and have no opportunity of collecting ante-natal specimens of urine. The latter circumstance is admitted, but on the other hand the majority of midwives are personally acquainted with the patients for whom they usually give their services at confinement and could readily obtain ante-natal specimens of urine if they decided faithfully to observe

the duties prescribed under the rules governing their practice. Rule E. 1 (a) is not being observed, and more exact supervision of midwifery practice in this respect is being undertaken.

The total number of positive results, 245, was obtained in specimens of urine from 141 expectant mothers.

In 45 of these expectant mothers there was a history of abnormality in a previous pregnancy, *e.g.*, still-birth, miscarriage, albuminuria, post-partum hæmorrhage, puerperal fever, &c.

Ante-natal treatment on account of albuminuria was recorded in 19 cases as follows:—Bellshill Hospital, 7; Blantyre Hospital, 7; and Calderbank Convalescent Home, 5. 45 were confined in Bellshill Hospital, the remainder at home.

The following table shows the incidence of albuminuria in relation to the number of pregnancy:—

No. of pregnancy,	1st	2nd	3rd	4th	5th	6th	7th	8th	Over 8;
No. of cases of albuminuria,	35	23	21	16	15	8	7	3	13

While the majority of these cases of albuminuria appear to have been transient, easily overcome by simple measures, and unattended by ill-effects to immediate health of the mother, her confinement, or her post-natal health, the following abnormalities are recorded at the termination of pregnancy in 38 cases:—

Abortion (threatened,	1
Abortion (complete),	1
Cæsarean Section,	1
Still-Birth,	2
Ruptured perineum,	9
Post-partum hæmorrhage,	1
Puerperal fever,	2
Post-natal albuminuria,	15
Pyelitis,	2
Eclampsia—fatal,	1
Infantile Death,	3

The infants' deaths were certified as:—Acute laryngitis, age 7 days; congenital debility, age 17 days; forceps delivery, intracranial hæmorrhage, age 1 day.

There is not sufficient exact information available regarding the health of those mothers before pregnancy to gauge the effect of albuminuria on their post-natal health, but the following table is based on ordinary observation of the health of the mothers after their confinement :—

MOTHERS :

Post-natal Health.

Satisfactory, - - -	102
Unsatisfactory, - -	38*

INFANT :

Health satisfactory, - -	102
,, unsatisfactory, - -	33†

* 1 maternal death.

†2 still-births and 3 deaths soon after birth not included.

CHILD WELFARE CENTRES.

The following statement shows the day, hours, and place of meeting of the existing Centres :—

Centre.	Address.	Day.	Time.
*Airdrie,	Sir John Wilson Town Hall, Airdrie, ...	Tuesday,	10–12 noon
Baillieston,	Miners' Welfare Hall, Baillieston, ...	Monday,	2.30–5 p.m.
*Bellshill,	Co-operative Hall, Mossend, ...	Tuesday,	9.30–11.30 a.m.
Bellshill,	Co operative Hall, Mossend, ...	Thursday,	2.30–5 p.m.
*Blantyre,	Health Institute, Blantyre, ...	Wednesday,	9.30–11 a.m.
Blantyre,	Health Institute, Blantyre, ...	Thursday,	2.30–5 p.m.
*Cambuslang,	Health Institute, Cambuslang, ...	Wednesday,	9.30–11 a.m.
Cambuslang,	Health Institute, Cambuslang, ...	Tuesday,	2.30–5 p.m.
*Larkhall,	Sons of Temperance Hall, Larkhall, ...	Wednesday,	9.30–10.30 a.m.
Larkhall,	Sons of Temperance Hall, Larkhall, ...	Thursday,	2.30–5 p.m.
Newarthill,	Miners' Welfare Hall, Newarthill, ...	Wednesday,	2.30–5 p.m.
Newmains,	Co-operative Hall, Newmains, ...	Wednesday,	2.30–5 p.m.
New Stevenston	Masonic Hall, New Stevenston,	Tuesday,	2.30–5 p.m.
Shotts,	Health Institute, Shotts, ...	Thursday,	2.30–5 p.m.
Tannochside,	Miners' Welfare Hall, Tannochside,	Monday,	2.30–5 p.m.
Uddingston,	E.U. Church Hall, Uddingston, ...	Tuesday,	2.30–5 p.m.
*Strathaven,	Road Surveyor's Office, Strathaven,	Monday,	10–12 noon

* Open each alternate week for issue of milk and meal lines.

With the exception of Cambuslang, Blantyre, and Shotts, the Centres are held in hired premises, and the scope of the work is limited on that account. Health Institutes have been built by the Local Authority at the three places mentioned and facilities are provided for the conduct of a fully developed scheme.

Table M VII shows the attendances of mothers, infants, and children at the Child Welfare Centres during 1929.

TABLE M VII.

Centres.	No. of Sessions.	Total Attendances. Mothers.	Children. Under 1 year.	Children. Over 1 year
Baillieston,	47	3,048	1,516	1,198
Bellshill,	48	4,324	3,309	1,913
Blantyre,	48	2,653	1,075	1,460
Cambuslang,	49	3,707	1,914	2,040
Larkhall,	48	2,915	1,736	1,894
Newarthill,	48	2,154	1,241	1,081
Newmains,	48	2,535	1,552	1,287
New Stevenston,	48	1,985	890	1,097
Shotts,	48	2,572	1,604	1,284
Tannochside,	48	1,875	982	992
Uddingston,	48	2,659	1,359	1,067
		30,427	17,178	15,313

Medical Consultations.

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

TABLE M VIII.

Centre.	Mothers. No. of Sessions.	Mothers. Ante-natal. 1st Visit.	Mothers. Ante-natal. Total.	Mothers. Post-natal and others. 1st Visit	Mothers. Post-natal and others. Total.	Children. Under 1 year. 1st Visit.	Children. Under 1 year. Total.	Children. Over 1 year. 1st Visit.	Children. Over 1 year. Total.
Baillieston,	41	20	24	50	79	105	313	106	240
Bellshill,	47	70	111	115	230	210	537	191	452
Blantyre,	48	82	191	149	248	163	321	260	552
Cambuslang,	96	101	246	171	294	195	446	259	553
Larkhall,	46	60	129	117	184	201	475	171	378
Newarthill,	48	21	39	35	74	86	241	70	224
Newmains,	48	27	61	68	149	120	354	135	357
New Stevenston,	45	13	17	31	43	70	222	71	145
Shotts,	48	43	92	72	200	125	312	160	396
Tannochside,	24	10	20	33	50	49	151	56	137
Uddingston,	32	32	61	38	73	70	176	93	264
	479	991	879	1,624	1,394	3,548	1,572	3,698	

Infants and Children.—Table M IX 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 the patient thought it 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 IX.

ILLNESSES OF INFANTS AND CHILDREN ATTENDING CENTRES.

CENTRE.	Gastro Intestinal.	Intestinal Worms.	Respiratory.	Tuberculosis.	Skin.	Ear, Nose, and Throat.	Eyes.	Teeth.	Rickets.	Hernia	Phimosis.	Anal Prolapse.	Club foot.	Infantile Paresis.	Injury to Limb.	Cleft Palate.	Others.	Total.
Baillieston, -	100	2	36	3	47	11	5	3	12	4	1	—	—	2	1	—	13	240
Bellshill, -	165	5	70	8	32	22	26	4	25	8	8	1	—	5	3	—	34	416
Blantyre, -	142	10	58	2	68	24	21	20	65	14	9	—	—	4	5	1	42	485
Cambuslang, -	126	16	66	3	54	27	37	23	76	17	12	—	—	—	—	—	49	507
Larkhall, -	141	3	53	—	66	34	10	6	32	19	12	—	1	1	2	—	—	380
Newarthill, -	64	2	28	2	20	9	10	4	16	3	4	—	1	—	3	—	12	178
Newmains, -	105	2	22	3	27	20	11	7	21	7	6	2	3	4	1	—	30	271
New Stevenston, -	57	1	27	1	25	19	11	5	14	3	5	—	1	—	1	—	5	175
Shotts, - -	126	4	20	4	39	40	14	6	17	6	7	—	—	4	2	1	27	317
Tannochside, -	47	2	30	1	11	11	3	6	4	—	1	—	1	—	1	—	1	119
Uddingston, -	69	2	32	—	19	14	6	4	11	3	—	—	1	—	—	—	14	175
	1,142	49	442	27	408	231	154	88	293	84	65	3	8	20	19	3	227	3,263

Ante-natal Cases.—During the year 479 ante-natal cases (representing 529 conditions) were seen at the Child Welfare Centres. These are shown in the following table according to Centres and the conditions found :—

TABLE M X.

ANTE-NATAL CASES.

Centre.	Normal.	Contracted Pelvis.	Albuminuria.	Hyperemesis	Hemorrhage and Threatened Abortion.	Hydramnios.	Leucorrhœa.	Varicose Veins and Hæmorrhoids.	Respiratory.	Cardiac.	Gastro Intestinal.	Dental Caries.	Abdominal Pain.	Previous Abnormality.	Debility.	Others.	Total.
Baillieston,	6	—	1	—	—	—	—	1	3	—	—	1	—	—	7	1	20
Bellshill,	22	1	3	2	5	—	3	4	4	1	4	1	4	6	4	7	71
Blantyre,	23	1	20	2	5	—	2	4	2	2	6	6	2	3	12	3	93
Cambuslang,	21	1	23	1	3	1	2	13	4	4	8	15	5	3	6	4	114
Larkhall,	13	2	7	4	2	—	—	1	1	—	3	3	—	1	18	5	60
Newarthill,	1	—	1	1	1	—	—	2	2	1	5	2	4	2	3	—	25
Newmains,	5	—	3	1	1	—	1	2	1	—	—	5	4	3	1	1	28
New Stevenston,	3	—	1	2	—	—	—	—	—	1	—	—	—	—	3	3	13
Shotts,	9	—	7	1	4	—	—	4	—	—	4	6	4	5	8	1	53
Tannochside,	2	1	1	1	—	1	1	2	—	—	—	1	4	—	2	—	16
Uddingston,	8	—	4	1	—	—	1	3	1	—	4	—	—	3	8	3	36
	113	6	71	16	21	2	10	36	18	9	34	40	27	26	72	28	529

Of the above cases, 231 were referred for treatment to the ante-natal wards; 46 were referred to the family doctors; and the remaining 204 received treatment at the Clinics.

Post-natal and Other Consultations.—Table M XI shows the post-natal gynæcological and other consultations which were made at the various Centres:—

TABLE M XI.

POST-NATAL AND OTHER CONSULTATIONS.

CENTRE.	POST-NATAL.											GYNÆCOLOGICAL.						OTHERS.							
	Uterine Displacement.	Cervical Tear.	Leucorrhœa.	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.
Baillieston,	—	1	—	1	—	—	—	1	12	5	6	26	—	—	—	—	—	3	3	2	1	—	13	4	5	25
Bellshill,	—	—	2	5	—	4	10	3	10	28	5	67	1	1	1	10	3	4	20	4	2	1	27	3	11	48
Blantyre,	2	—	3	1	3	2	4	2	14	31	5	67	3	2	2	9	2	—	18	2	4	2	42	17	18	85
Cambuslang,	1	—	2	2	3	4	7	1	16	30	2	68	7	4	—	19	3	5	38	2	4	1	54	13	23	97
Larkhall,	—	—	1	2	—	3	2	1	17	21	8	55	—	—	—	10	—	8	18	1	3	1	8	13	18	44
Newarthill,	1	—	1	2	1	1	5	2	3	16	4	36	—	—	—	4	—	2	6	—	—	—	4	1	3	8
Newmains,	—	1	—	2	2	1	1	1	10	17	4	39	1	1	—	4	1	—	7	2	1	1	13	4	8	29
New Stevenston,	1	—	—	—	—	1	1	2	2	8	2	17	—	—	—	3	—	—	3	—	—	—	4	2	6	12
Shotts,	2	2	1	2	—	3	3	—	9	23	6	51	1	—	1	1	1	2	6	—	1	—	10	3	7	21
Tannochside,	—	—	2	—	1	—	1	3	5	4	2	18	—	—	—	4	—	—	4	—	—	—	11	6	3	20
Uddingston,	—	—	3	—	1	1	—	3	1	11	2	22	2	—	—	6	1	—	9	—	—	1	7	2	2	12
	7	4	15	17	11	20	34	19	99	194	46	466	15	8	4	70	11	24	132	13	16	7	193	68	104	401

Treatment at Child Welfare Centres.

This further development of the Centres is only possible at those Clinics which are held in premises belonging to the Local Authority, and while something has been attempted during the year, the scheme cannot be fully developed until the staffing arrangements have been completed. The following statements give a record of the work carried out at Cambuslang, Blantyre, and Shotts, and also at the out-patient department at Calderbank House :—

MINOR AILMENTS.

Mothers :

	Cambuslang.	Blantyre.	Shotts.
Anæmia and Debility, -	55	41	9
Skin Disease, - -	—	12	3
*Others, - - -	—	29	1
	55	82	13
Re-attendances, - -	566	126	87

* This group includes such conditions as the application of abdominal belt, vaginitis, catheterisation, eye diseases, &c.

Children :

	Cambuslang.	Blantyre.	Shotts.
Skin, - - -	—	25	32
Eyes, - - - -	—	22	3
Ears, - - - -	—	15	7
*Others, - - -	—	36	4
	—	98	46
Re-attendances, -	—	340	411

* Includes vaccination, dressings, circumcision dressings, threadworms, stomatitis, umbilical hernia, sepsis, &c.

Artificial Sunlight Treatment.

	Mothers		*Children*	
	New Cases.	Re-attendances.	New Cases.	Re-attendances.
Blantyre, - - -	2	1	49	561
Cambuslang, - - -	3	39	42	574
Shotts, - - - -	—	—	24	379
Calderbank House, -	3	210	20	538
	8	250	135	2,052

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, ...	17	16	11
Blantyre, ...	17	17	9
Cambuslang, ...	18	12	11
Shotts, ...	15	12	1
	67	57	32

Dental Treatment—Mothers and Children.

During the year 458 mothers and 101 children were recommended for dental treatment, and of these 273 mothers and 66 children attended the dental surgeons appointed by the Local Authority.

	Mothers.		Children.	
Centre.	Recommended for Treatment.	Attended Dentist.	Recommended for Treatment.	Attended Dentist.
Baillieston, ...	33	20	3	1
Bellshill, ...	50	29	4	2
Blantyre, ...	99	56	20	15
Cambuslang, ...	124	69	32	18
Larkhall, ...	31	23	5	2
Newarthill, ...	12	5	5	2
Newmains, ...	31	23	9	9
New Stevenston,	5	4	5	4
Shotts, ...	23	13	5	4
Tannochside, ...	19	12	5	4
Uddingston, ...	11	7	6	3
From Outlying Districts, ...	20	12	2	2
	458	273	101	66

Ear, Nose, and Throat Ailments.

No. of Sessions.	No. of 1st Visits.	No. of Re-visits.	Operations recommended.	Operations performed.
21	99	64	64	58

The operations performed were as follows:—

Tonsils and Adenoids, ...	58
Gland of neck curetted, ...	1
Total, ...	58

Operation was refused in 6 cases, which accounts for the difference between the number of operations recommended and performed.
In addition—

4 patients received special examination, namely—Chloroform examination, 2; œsophageal bougie passed, 1; laryngoscopic examination, 1.

5 patients who were receiving in-patient treatment in Calderbank House had operation as follows:—Tonsils and adenoids, 3; incision of membrana tympani, 1; mastoid, 1.

5 patients were admitted directly to Calderbank House for tonsils and adenoids operation, 4 being from the Upper Ward.

Of the 4 cases who were awaiting operation at the end of 1928, 3 had tonsils and adenoids operation, while 1 did not require operative treatment after receiving hygienic treatment. This patient who was receiving general practitioner treatment during 1928 prior to operation also had tonsils and adenoids removed during 1929.

Attendances at the Clinic were recommended from the following sources:—

Baillieston Child Welfare Centre, ...		4
Bellshill	do., ...	14
Blantyre	do., ...	3
Cambuslang	do., ...	4
Larkhall	do., ...	13
Newarthill	do., ...	4
Newmains	do., ...	7
New Stevenston,	do., ...	7
Shotts,	do., ...	19
Tannochside,	do., ...	7
Uddingston,	do., ...	5
Larkhall Dispensary, ...		2
Middle Ward Staff, ...		10
		99

Educational Work.

The following table shows the demonstrations and lectures which were given at the various Centres during the year :—

TABLE M XII.

	Demonstrations.		Lectures.
	Cookery.	Dress-making.	
Baillieston, -	8	11	———
Bellshill, -	11	24	Small pox and vaccination. Faults of irregular feeding. Hygiene. Diarrhœa in Infants. Health Topics.
Blantyre, -	11	11	Poulticing. Small-pox and Vaccination.
Cambuslang, -	11	20	How to bath baby. Influenza. Breast-feeding and weaning. Small pox and vaccination. (5) How to build bonnie babies. Rickets. Ante-natal Hygiene. Baby's first month.
Larkhall, -	10	11	Infant clothing and feeding. Making poultices. Making of Peptonised milk whey and albumen water. Home management. Work of Child Welfare Centre. Infant feeding. Rickets.
Newarthill, -	12	10	The Child Welfare Centre. Small-pox and vaccination. The pregnant woman. Infantile diarrhœa.
Newmains, -	12	12	Bathing Baby. Treatment of mouth and nose. Making baby's cot. Scabies. Vaccination. Adenoids. Summer diarrhœa. Enuresis. Hygiene of pregnancy. Treatment of discharging ears.
New Stevenston,	11	12	———
Shotts, - -	11	12	Dressing baby. Making up baby's bed. Treatment of baby's nose. Bathing baby. Dentition and dental caries. Adenoids in infants. Summer diarrhœa. Under clothing infants. Enuresis. Hygiene of pregnancy.
Tannochside, -	11	11	———
Uddingston, -	11	11	———

Necessitous Cases.

The number dealt with monthly and the annual figures and estimated expenditure for each Centre are shown in Table M XIII below :—

TABLE M XIII.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
639	670	663	517	513	571	585	569	480	436	495	502	6,640

	No. of Cases.	Amount.				No. of Cases.	Amount.		
Airdrie, ...	885	£411	19	11	Newarthill, ...	346	£160	5	11
Baillieston, ...	518	229	1	0	Newmains, ...	267	104	9	6
Bellshill, ...	1,137	519	3	1	New Stevenston,	261	116	2	5
Blantyre, ...	827	370	18	2	Shotts, ...	221	86	19	6
Cambuslang, ...	364	166	12	5	Strathaven, ...	148	72	19	5
Larkhall, ...	542	235	16	8	Tannochside,	476	211	11	4
					Uddingston, ...	648	301	8	1
	4,273	£1,933	11	3		2,367	£1,053	16	2

Total Cases, ... 6,640
Total Expenditure, ... £2,987 7s. 5d.

For purposes of comparison the expenditure since 1920 is shown below :—

Year.	No. of Cases.	Expenditure.
1920	956	£860 0 0
*1921	53,996	37,624 8 3
1922	14,961	9,417 0 0
1923	5,582	3,033 17 2
1924	4,432	2,570 18 9
1925	8,281	4,476 17 3
*1926	67,625	18,653 9 8
1927	15,350	7,652 12 2
1928	8,723	4,202 3 0
1929	6,640	2,987 7 5

* Years of industrial depression.

Midwives (Scotland) Acts, 1915 and 1927.

Practising Midwives. — During the year 187 certified midwives (140 resident within and 47 resident outwith the Middle Ward) notified their intention to practise—a decrease of 7 compared with the number last year.

The qualifications of the practising midwives are as follows:—

	1924	1925	1926	1927	1928	1929
Certificate of the Central Midwives Board (Scotland), ...	54	53	53	54	48	57
Certificate of the Central Midwives Board (England), ...	2	3	4	4	4	4
Trained and certified by the Royal Maternity Hospital (Glasgow), ...	6	6	6	6	7	6
Trained and certified by the Royal Maternity Hospital (Edinburgh),...	1	1	1	1	1	1
Trained and certified by the Rotunda Hospital (Dublin),...	—	—	—	—	1	1
In *bona-fide* practice and certified under the Act, ...	167	159	153	142	133	118
	230	222	217	207	194	187

The above table shows that there are now 69 trained midwives, and 118 untrained midwives, as compared with 61 and 133 respectively in 1928.

The number of practising midwives according to parish of residence is as follows:—

Parish.	Number of Midwives.	Parish.	Number of Midwives.
Avondale, ...	3	Dalserf, ...	18
East Kilbride, ...	—	Dalziel, ...	—
Glasford, ...	3	Hamilton, ...	2
Stonehouse, ...	5	New Monkland, ...	15
Blantyre, ...	9	Old Monkland, ...	12
Bothwell, ...	39	Shotts, ...	8
Cambuslang, ...	12	Midwives resident outwith District, ...	47
Cambusnethan, ...	14		
	85		102

Total, 187

Change of Address.—The changes of address of 20 midwives were reported to the Board; 4 left the District, 1 of the latter going abroad.

Deaths.—Six midwives died during the year, the numbers on the Roll being 247, 867, 1820, 1869, 3140, and 4255.

Inspection of Midwives.—The routine inspections of midwives resident in the District numbered 517. In addition, 83 special inspections were made on account of non-compliance with the rules, while a few were made for tuitional purposes. In connection with the possession of midwifery outfits, 5 midwives were without bags and linings; 1 did not possess washable uniforms and aprons; 2 were without nail brushes; 3 without scissors, and 11 had not supplied themselves with thermometers. The reports of the Inspectors showed that registers in 3 instances and temperature charts in 36 instances were either kept incorrectly or no attempt was made to keep them at all.

Disciplinary Cases.—The rather unusual circumstance of a person continuing to practise midwifery after being prohibited by the Board from attending women in child-birth in any capacity was reported to the Procurator-Fiscal. In 1927 the woman was resident within the City of Glasgow, where on account of a misdemeanour her action was reported to the Central Midwives Board, who ordered the removal of her name from the Roll. The woman failed to surrender her certificate to the Board, and, having taken up residence in the Middle Ward District, continued to act as a midwife. She notified her intention to practise during the years 1928 and 1929 and designated herself on the birth notification forms as a "certified midwife." When the Local Authority sent on the list of practising midwives to the Board it was learned that her name had been removed from the Roll and accordingly proceedings were instituted. When the case was in Court the woman pleaded guilty and a fine of 10s. was imposed.

A handywoman was prosecuted under Section 1 (2) of the Midwives and Maternity Homes (Scotland) Act, 1927, for attending at a confinement and failing to summon a medical practitioner or certified midwife. She apparently attended in emergency, but took no steps to obtain skilled assistance for the supervision of the puerperium. She was reported to the Procurator-Fiscal for a similar offence in 1927, but on that occasion the case was not called in Court. In this instance, however, she appeared before the Sheriff in December, pleaded guilty, and was admonished.

In 18 instances letters were issued to midwives on account of minor offences.

Attendance at Confinement.—The number of births notified as woman was found to have been in attendance, and in 29 the informa- 39·9 per cent.

Attendance by Unqualified Persons.—In 39 instances a handywoman was found to have been in attendance, and in 29 the information supplied in the special reports made it clear that no further action was necessary as the attendance had been given in genuine emergency and skilled assistance called at the earliest opportunity. There being apparent irregularity in the remaining 10 cases, the persons involved were interviewed by the Medical Officer of Health and requested to explain the circumstances under which they had attended. A satisfactory explanation of *bona-fide* emergency was elicited in the majority of instances, and in a few the women admitted that they had been in error but pleaded ignorance of the Statute. Without exception the persons interviewed gave an undertaking to desist from performing unauthorised midwifery practice, and several of them voluntarily agreed to give up practising midwifery in any capacity. It is felt that such interviews will assist greatly in eliminating the habitual handywoman and will reassure the qualified midwives that their practice is being safeguarded by the Local Supervising Authority.

In sparsely populated areas situated at some distance from the residence of a doctor, handywomen have been in default because of their reluctance to call medical assistance in the early hours of the morning. The confinement having been completed safely, they wait until the forenoon. If such cases are left to the discretion of the emergency attendant the interval that may elapse gradually extends until the hours of 10 p.m. to 10 a.m. becomes the recognised period of duty for a handywoman. Unqualified women are told that medical assistance must be sent for at the same time as emergency assistance is requested.

Cases have occurred in which more than twelve hours have elapsed before the doctor responds to the message, and in such circumstances handywomen are instructed that they must call other qualified assistance if the first request is not answered within a few hours.

Handywomen have excused their irregular practice with the plea that the husband or the patient refused to allow a doctor to be called because he did not wish to make himself liable for the fee: but the unqualified attendant is informed that she is responsible for the summoning of skilled assistance.

In the case of B.B.A.'s, the impression was gathered that medical attendance is sought mainly in connection with certification for Maternity Benefit and not for the supervision of the mother and infant.

The persistence of the handywomen was explained by an unqualified woman who pleaded ignorance of the law. She stated that in addition to conducting the confinement she undertook all the housework from 7 a.m. to 7 p.m., and for these services received a fee of £1.

Some of these points are illustrated in the following:—

Complaint by a Medical Practitioner as to the Practice of a Handywoman.

On enquiry eight cases were traced to the handywoman and information was available in respect of seven, the eighth having left the district. In all of them a doctor attended either at the confinement or shortly thereafter, but the interval between the arrival of the handywoman and of the doctor was as follows:—15 minutes in one instance; two hours in two; three hours in one; four hours in one; five hours in one; and six hours in one.

Instead of immediately summoning medical assistance the handywoman appeared to be acting as a judge as to when a doctor should be called, and in this respect she was not attending in "a case of sudden or urgent necessity," even although the actual confinement was ultimately conducted by a practitioner.

She was not a certified midwife, and on being interviewed stated that she attended maternity cases as a nurse; her hours in the house were from 8 a.m. to 8 p.m.; she undertook all housework and duties in connection with the children, and her fee was 4s. 6d per day. She did not take cases unless she was assured that a doctor had been engaged, and she understood clearly that she was not entitled to conduct a confinement alone. She believed that the complaint against her was prompted by a certified midwife who lived in the vicinity

and that the motive was one of jealousy. She was warned as to the restricted nature of the practice she was entitled to conduct and gave the impression that she was willing to accept guidance and had no intention of wilfully disregarding the correct procedure.

In one of the cases the confinement was completed before the arrival of the practitioner, and as he completed the notification of birth showing the attendant to be a doctor his attention was directed to the error and the need for greater care in certification.

Infantile Deaths.—The total number of infantile deaths was 426. In 131 instances the deaths occurred in infants during the first ten days, and 37 of these were in the practice of certified midwives. The causes of death were as follows:—Pneumonia, 1; atelectasis, 5; other respiratory diseases, 2; circulatory disease, 1; diarrhœa, 1; disease of genito-urinary system, 1; infantile convulsions, 7; injury at birth, 7; prematurity, 63; debility, 27; congenital malformation, 11; other diseases of early infancy, 1; and ill-defined diseases, 4.

Ophthalmia Neonatorum.—There were 73 notified cases of ophthalmia, 21 of these occurring in the practice of midwives. In addition 127 cases of discharging eyes were detected by the Health Visiting Staff, and 30 of these occurred among midwives' cases.

Puerperal Fever and Pyrexia.—The total number of cases notified was 101, and 25 of these occurred in the practice of midwives. There were 13 deaths from this disease, and 3 of these related to midwives' cases.

Still-births.—The total number of still-births was 199, 39 of these being midwives' cases.

Examination of Urine.—104 specimens of urine were sent to the County Laboratory for examination by 6 certified midwives, 53 giving a positive result. At the Child Welfare Centres 263 cases were submitted by certified midwives, and of these 42 proved positive.

Liability to be a Source of Infection.—20 notifications were received from midwives as follows:—Scarlet fever, 1; puerperal fever, 14; measles, 1; rise in temperature, 1; scabies, 1; influenza, 2.

Suspension from Practice of Midwife Suffering from Pulmonary Tuberculosis.

In October a report was submitted to the Local Supervising Authority relating to a certified midwife who had been notified as suffering from pulmonary tuberculosis. The Tuberculosis Officer stated that the disease was sub-active, the sputum positive, and the patient liable to spread infection. It was recommended that the midwife be suspended from practice in accordance with the provisions of Section 16 (3) of the Midwives (Scotland) Act, 1915, and that the period of suspension be fixed at three months in the first instance. The Local Authority agreed to this recommendation, and the midwife claimed compensation under Section 3 of the Midwives and Maternity Homes (Scotland) Act, 1927. She had conducted 26 confinements during the year 1928 and 10 during the first quarter of 1929. Compensation was fixed on the basis of 8 cases per quarter and at the rate of 25s. per case, subject to these two conditions, viz., (1) that the midwife was physically fit to carry on her practice, (2) that she carried out such treatment as was recommended by the Tuberculosis Officer.

Form of Having Laid Out a Dead Body.—3 notifications were received, 1 being in respect of a mother, and 2 for infants.

Provision of Certified Midwives in Necessitous Cases.—The cost of the attendance of a certified midwife was met by the Local Authority in 7 cases, the fee paid being 25s. per case.

The midwife was re-examined towards the end of the year and reported to be still liable to spread infection. The period of suspension was continued for two months and compensation paid on the same rate.

Compensatory Fees.—In 12 instances where a midwife called a medical practitioner to her assistance, the patient was removed to hospital, and in each case a compensatory fee of 10s. was paid to the midwife.

Medical Assistance.—Medical aid was sought by midwives in 519 instances, a decrease of 29 compared with the previous year. This represents 27·2 per cent. of the births attended by certified midwives. The conditions for which assistance was obtained are detailed in Table M XV.

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 247, representing 47·5 per cent. of the cases to which they had been called and amounted to £382 10s. £18 13s., or 4 per cent. of the total expenditure, was recovered. In the following Table there is set forth the number of accounts since the Act came into operation, together with the total sum recovered :—

TABLE M XIV.

Year	Births attended by Midwives	Medical Assistance Forms received	Per centage of Midwives' cases requiring Medical Assistance	Doctors' Claims		Amount of Account			Amount recovered			Per cent.
				No.	per cent.	£	s.	d.	£	s.	d.	
1917	2,486	170	6·8	5	2·9	4	9	0	2	9	6	55
1918	2,789	158	5·6	10	6·3	6	14	0	2	3	6	32
1919	2,794	167	5·9	14	8·3	10	5	0	2	0	0	19
1920	3,188	146	4·5	10	6·8	6	0	0	2	7	0	39
1921	2,905	189	6·5	12	6·3	10	0	0	—			—
1922	3,104	228	7·3	33	14·4	38	13	3	1	0	0	3
1923	2,856	313	10·9	51	16·2	61	17	6	3	1	0	4
1924	2,730	465	17·0	121	26·0	139	3	6	18	12	6	13
1925	2,659	492	18·5	196	39·8	237	5	3	17	8	0	—
1926	2,346	620	26·4	255	41·1	379	3	3	15	1	9	4
1927	2,195	504	22·9	391	77·5	501	15	9	34	0	0	6
1928	2,124	548	25·8	381	69·5	502	16	0	32	2	6	7
1929	1,906	519	27·2	247	47·5	382	10	0	18	13	0	4
						£2,280	12	6	£148	18	9	6

Intention to Practise.—A list of the midwives who notified their intention to practise during the year was forwarded to the Board on 11th February, 1930.

Table M XV.

Records of Sending for Medical Assistance Classified according to Parish and the Conditions requiring Medical Aid. The Totals are also shown for each Year since 1925.

Reasons for Medical Assistance.	Parish. Stonehouse.	Blantyre.	Bothwell.	Cambuslang.	Cambusnethan.	Dalserf.	Dalziel.	Hamilton.	New Monkland.	Old Monkland.	Shotts.	Total during 1929	1928	1927	1926	1925
Mother :—																
Prolonged Labour,	3	56	41	16	—	30	—	7	21	9	—	183	181	147	173	135
Contracted Pelvis,	—	1	10	—	—	—	—	—	—	2	—	13	12	4	12	3
Uterine Inertia,	—	2	29	4	—	1	—	—	—	1	—	37	23	34	58	29
Abnormal Presentation,	—	7	26	8	—	3	—	1	2	3	—	50	35	34	57	48
Prolapse Cord,	—	—	1	—	—	—	—	—	—	—	—	1	2	2	4	—
Placenta Prævia,	—	—	1	—	—	—	—	—	—	—	—	1	3	—	4	3
Ante-Partum Hæmorrhage,	—	1	5	—	—	—	—	—	—	—	—	6	22	18	25	15
Post-Partum Hæmorrhage,	—	1	1	3	—	—	—	—	—	—	—	5	4	12	7	7
Hæmorrhage (unqualified),	—	2	—	—	—	1	—	—	1	—	—	4	9	—	—	—
Retained Placenta,	—	3	4	3	—	2	—	1	—	—	—	13	23	13	20	19
Hydramnios,	—	—	4	—	—	—	—	—	—	—	—	4	2	—	1	1
Eclampsia and Convulsions,	—	1	—	—	—	—	—	2	—	—	—	3	3	5	5	3
Albuminuria,	—	5	—	6	—	—	—	—	—	—	—	11	13	16	17	16
Torn Perineum,	—	26	13	13	—	2	—	4	3	5	2	68	84	73	81	68
Abortion (actual or threatened),	—	9	—	2	—	2	—	—	—	—	—	13	12	8	12	5
Pyrexia,	—	9	1	3	—	—	—	—	1	—	—	14	13	20	9	8
Puerperal Sepsis,	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Phlebitis,	—	2	—	—	—	—	—	—	—	—	—	2	—	3	—	—
Influenza,	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Debility and extreme weakness,	—	8	4	—	—	1	—	—	—	—	—	13	27	15	12	1
Varicose Veins,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Mastitis,	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—
Œdema,	—	2	—	—	—	—	—	—	—	—	—	2	1	—	—	—
Other defined causes,	—	9	2	—	—	—	—	—	—	—	—	11	12	21	21	36
Ill-defined causes,	—	2	—	—	—	—	—	—	8	—	—	10	10	15	17	—
Child :—																
Still-Birth,	—	1	3	3	—	2	—	1	—	—	—	10	10	14	17	17
Premature Child,	—	11	2	4	—	1	—	2	—	1	—	21	14	17	20	23
Ophthalmia Neonatorum,	—	—	—	1	—	—	—	—	—	—	—	1	3	11	23	33
Discharging Eyes,	—	1	2	4	—	—	1	—	—	1	—	9	12	2	—	—
Congenital Malformation,	—	1	—	1	—	—	—	—	—	—	—	2	—	2	3	3
Anencephalus,	—	—	1	—	—	1	—	—	—	—	—	2	—	—	—	—
Spina Bifida,	—	2	—	1	—	—	—	—	—	—	—	3	2	—	—	—
Hare Lip,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Convulsions,	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—
Debility and extreme weakness,	—	1	2	—	—	—	—	—	—	—	—	3	3	7	4	4
Hydrocephalus,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1
Skin Condition,	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	1
Death of Infant,	—	—	—	1	—	—	—	—	—	—	—	1	1	—	—	—
Other Causes,	—	—	2	2	—	—	—	—	—	—	—	4	6	9	14	9
	3	163	154	75	—	46	1	18	36	22	2	520	548	504	620	491

County Maternity Hospital, Bellshill.

REPORT BY THE PHYSICIAN-SUPERINTENDENT, HENRY JAMES THOMSON, M.D.

	Adults.	Babies.
Number of patients in residence, 1/1/29, -	25	13
Number of patients admitted, - - -	915	525
Number of patients discharged, - -	904	494
Number of deaths, - - - - -	13	32
Leaving in residence, - - - -	23	12

The still-births for the year numbered 50.

The following table shows the districts from which the patients were admitted :—

TABLE M I.

MIDDLE WARD, ... 800

Avondale, ...	14	Cambusnethan, ...	32
East Kilbride, ...	8	Dalserf, ...	62
Glasford, ...	1	Dalziel, ...	42
Stonehouse, ...	7	Hamilton, ...	32
Blantyre, ...	91	New Monkland, ...	74
Bothwell, ...	233	Old Monkland, ...	65
Cambuslang, ...	89	Shotts, ...	50
LOWER WARD, ...	52	UPPER WARD, ...	65

TABLE M II.

	In Residence 1/1/29	Admitted.	Discharged.	Died.	In Residence 31/12/29
Ante-natal, -	8	163	163	4	4
Confinements,	15	543	534	9	15
Abortions, -	2	141	139	—	4
Post-natal, -	—	21	21	—	—
Gynæcological,	—	47	47	—	—
	25	915	904	13	23

Infants born in Hospital—

In Residence 1/1/29	Infants born. Alive.	Still-born.	Discharged. Well.	Died.	In Residence 31/12/29
13	508	50	478	31	12

Babies admitted with Mother—

In Residence 1/1/29	Admitted.	Discharged well.	Died.	In Residence 31/12/29
—	17	16	1	—

Sex.	Babies born alive. Legitimate.	Illegitimate.	Babies still-born. Legitimate.	Illegitimate.
Males, - -	211	53	20	5
Females, -	196	48	22	3
	508		50	

The following shows the number of infants born since the Local Authority began the treatment of maternity cases, 1918 to 1929:—

	In residence.	Infants Born alive.	Still-born.	Discharged well.	Died.	In residence.
1918, -	—	7	—	5	—	2
1919,	2	30	2	22	5	5
1920, -	5	110	6	105	6	4
1921, -	4	203	22	183	15	9
1922, -	9	213	50	201	11	10
1923, -	10	288	57	273	20	5
1924, -	5	334	61	303	23	13
1925, -	13	501	56	458	28	28
1926, -	28	643	64	605	43	23
1927, -	23	683	63	659	27	20
1928, -	20	646	71	621	32	13
1929, -	13	508	50	478	31	12

TABLE M III.

	Number of Cases discharged.	Well.	Condition. Improved.	I. S. Q.	To other Institutions.	Died.
Ante-natal, -	167	126	16	10	11	4
Confinement, -	543	515	—	—	19	9
Abortion, - -	139	122	—	1	16	—
Post natal, -	21	20	—	—	1	—
Gynæcological, -	47	40	1	—	6	—
	917	823	17	11	53	13

Table M IV.

Abnormal or Complicated Confinements.

Number of cases, ... 264

Abnormal presentations, - - 21

Hæmorrhages—

External accidental Hæmorrhage,	21
Placenta prævia lateral, - -	10
Post-partum Hæmorrhage, -	2

Toxæmias of Pregnancy—

Albuminuria, - - - -	110
Albuminuria and post-partum Hæmorrhage, - - -	1
Albuminuria and Contracted Pelvis, - - - - -	2
Eclampsia, - - - - -	15
Hæmaturia, - - - -	2
Hæmaturia and Pyelitis, -	1
Hydramnios, - - - -	3
Hyperemesis, - - - -	3
Neuritis, - - - - -	2
Hyperemesis and Pyelitis, -	2
Pyelitis, - - - - - -	22
Pyelitis and Contracted Pelvis,	1

Others—

Bronchitis, - - - -	1
Cardiac disease, - - -	5
Contracted pelvis, - - -	20
Influenza, - - - -	1
Mental Instability, - - -	2
Complete Occlusion of os uteri,	1
Acute Pneumonia, - - -	1
Right Inguinal Hernia, - -	1
Delayed Labour, - - -	11
Varicose Veins, - - -	3
	264

In the above, obstetrical operations were as follows :—

Forceps, 31 ; Failed forceps before admission, 12; (normal after admission, 3 ; Craniotomy, 4 ; Forceps, 5) Craniotomy, 1 ; (this case arranged for Cæsarean section, but labour commenced at home prematurely, and was well advanced before patient was admitted). Version, 2 ; Cæsarean section, 6 ; Induction of labour, 20.

Delivery was assisted in the following cases : —(Elbow presentation, 1 ; Difficult cases of breech presentation, 3 ; Impacted breech, 1).

Among the above were 8 cases of Puerperal Morbidity.

Results—

Discharged Well, ...	241
To Other Institutions, ...	14
Died, ...	9
	264

TABLE SHOWING PREGNANCIES AT VARIOUS AGE-PERIODS.

Gravida	-20	-25	-30	-35	-40	-45	45 and over	Total
1	51	110	38	12	8	...	...	219
2	1	30	28	15	7	2	...	83
3	...	20	22	9	2	1	...	54
4	...	5	18	10	4	...	...	37
5	...	...	9	17	5	3	...	34
6	...	...	4	16	5	3	...	28
7	...	...	1	8	8	3	1	21
8	...	...	...	4	11	...	...	15
9	...	...	...	2	7	3	...	12
10	...	...	...	4	8	3	...	15
11	...	...	...	...	4	2	...	6
12	...	...	...	...	3	1	...	4
13	...	...	...	...	3	6	...	9
14	...	...	...	...	...	2	1	3
15 & over	...	...	...	...	1	2	...	3
	52	165	120	97	76	31	2	543

PERCENTAGE TABLE OF DELIVERY.

	Cases.	Per Cent.
Normal, ...	481	86·1
* Failed forceps before admission, ...	12	2·2
Version, ...	2	·4
Forceps, ...	32	5·7
Induction, ...	20	3·6
Cæsarean section, ...	6	1·1
Craniotomy, ...	5	·9
	558	100·0

* See TABLE M IV.

OTHER CASES OF CONFINEMENT.

(*a*) Normal deliveries, ... 279
(*b*) Cases delivered without medical attendance at delivery, 139
(*c*) Instrumental deliveries (exclusive of those under (M VI.), —
(*d*) Cases of morbidity (B.M.A. standard), ... —
(*e*) Cases under (*d*) in which delivery was instrumental,... —
(*f*) Deaths classified, ... —

(*a*) Infants born (i) alive, 508; (ii) still, 50.

(*b*) Number of cases of twins (i) under (*a*) (i) above, 15 sets; (ii) under (*a*) (ii) above, none.

Deaths of infants under eight days old, 32.

Cases of puerperal sepsis removed from the Institution, ...	11
One case died of acute sepsis in the Institution, ...	1
	12

Table M V.

Ante-Natal Cases.

Reason for admission—

Contracted pelvis,	7
Cardiac disease,	4
General debility,	2
External accidental Hæmorrhage,	12
Toxæmias of Pregnancy—	
Albuminuria,	26
Albuminuria with other symptoms of Toxæmia,	2
Enteritis,	1
Excessive Leucorrhœa,	1
Neuritis,	2
Mental Instability,	2
Oedema,	2
Persistent Constipation,	2
Puerperal Eclampsia,	2
Pernicious Vomiting,	38
Pyelitis,	23
Others—	
Acute Patella Bursitis,	1
Asthma,	1
Bronchitis,	2
Epilepsy,	2
Fractured Ribs and Emphysema,	1
Gallstones,	1
Gonorrhœa,	1
Pelvic pain,	4
Prolapsus Uteri,	2
Prophylaxis for Post-partum Hæmorrhage,	1
Prophylaxis for Puerperal Sepsis,	1
Paratyphoid,	1
Pruritis Ani,	1
Ruptured Uterus, (patient dying undelivered)	1
Septic Scabies,	2
	148

Results—

Discharged well,	107
Discharged improved,	16
Discharged I.S.Q.,	10
Discharged to other Institutions,	11
Died,	4
	148

There were also 19 cases admitted which proved not to be in labour and were discharged.

Table M VI.

Post-Natal Cases.

There were treated in the Institution during the year 21 post-natal cases admitted with the following conditions :—

Adherent Placenta,	2
Complete Perineal laceration,	2
Eclampsia,	5
For confinement, but birth before arrival,	6
Labial lacerations,	1
Pyelitis,	1
Unsatisfactory home conditions,	3
White Leg,	1
	21

Results.—

Discharged well,	20
Transferred to County Hospital, Blantyre,	1
	21

Table M VII.

Abortion and Uterine Hæmorrhage.

There were 139 cases discharged from hospital which had been admitted as suffering from symptoms of uterine hæmorrhage, and on examination the undernoted conditions were found to be present:—

	Cases.	Discharged Well.	Discharged I.S.Q.	Transferred to Mother-well.	Transferred to Blantyre.	Transferred to Calderbank.
Threatened abortion, ...	18	18	—	—	—	—
Complete abortion, ...	45	42	—	1	2	—
Incomplete abortion, ...	72	60	1	1	3	7
Extra-uterine pregnancy, ...	1	1	—	—	—	—
Fleshy mole, ...	1	1	—	—	—	—
Hydatiform mole, ...	2	—	—	2	—	—
	139	122	1	4	5	7

Eclampsia.

Maternal mortality for the past four years:—

	Cases.	Died.	Per cent. Mortality.
1926, ...	27	2	7·4
1927, ...	19	2	10·5
1928, ...	24	2	8·3
1929, ...	22	3	13·6
	92	9	9·78

Table M VIII.

Gynæcological Cases.

There were 47 cases discharged from hospital, having received either medical or surgical treatment.

Cervical lacerations, - - -	3	Medical Treatment.
Discharged from Umbilicus after abdominal section, - - -	1	
Displaced Ovary, - - -	1	
Excessive Leucorrhœa, - - -	2	
Goitre and Amenorrhœa, - -	1	
Intestinal and Uterine Hæmorrhage,	1	
Pelvic Abscess, - - - -	2	
Retroflexion, - - - -	1	
Subinvolution, - - - -	4	
Uterine bleeding, - - - -	12	
Carcinoma of Ovaries and Ascites,	1	Abdominal Section.
Cervical lacerations, - - -	7	Trachelorrhaphy.
Double Ovarian Cyst, - - -	1	Oopherectomy.
Perineal lacerations, - - -	1	Perineorrhaphy.
Placental Polypus, - - -	1	Curettage.
Sterility, - - - - -	3	
Uterine bleeding - - - -	2	
Prolapsus Uteri, - - - -	2	Colporrhaphy and Perineorrhaphy.
Uterine Fibroid, - - - -	1	Hysterectomy.
	47	

MATERNAL DEATHS.

(1) K.21, Para. 3, Age 21.—Patient was collapsed on admission, and had been under chloroform for three hours; temperature 95, pulseless. Improved after admission, craniotomy attempted, head crushed, patient again collapsed, child unborn; patient died three hours after admission.

Cause of death: *Shock, exhaustion after difficult labour in contracted pelvis.*

(2) A.N.113, Para. 8, Age 44.—The child was in a transverse position with the hand and arm at the vulval outlet. Patient was pulseless on admission with ruptured uterus, and died shortly thereafter.

Cause of death: *Ruptured uterus; obstetric shock.*

(3) A.N.114, Para. 1, Age 37.—Patient admitted with history of having been ill for 14 days with asthma and albuminuria; she was 6½ months pregnant. Pulse became very weak, and patient died 7½ hours after admission.

Cause of death: *Valvular disease of heart; asthma.*

(4) K.245, Para. 3, Age 29.—Admitted with pneumonia, confined 12 hours after admission, and died fourth day in hospital.

Cause of death: *Pneumonia.*

(5) K.299, Para. 4, Age 32.—Patient 8 months pregnant, was admitted with heart disease. Labour induced, normal delivery. Patient died 7 days after admission.

Cause of death: *Myocarditis; secondary post-partum hæmorrhage; exhaustion.*

(6) K.355, Para. 13, Age 39.—Patient 8½ months pregnant, induction of labour for contracted pelvis, post vertex presentation, forceps delivery, slight post-partum hæmorrhage. Patient collapsed shortly after delivery with dyspnoea, dying five hours after delivery on the seventh day after admission.

Cause of death: *Pulmonary thrombosis.*

(7) K.393, Para. 1, Age 32.—Patient admitted in comatose condition after having premonitory symptoms of eclampsia; temperature 101; pulse 110. Never regained consciousness, died 60 hours after admission.

Cause of death: *Puerperal eclampsia after failed forceps before admission, forceps delivery after admission.*

(8) K.613, Para. 10, Age 44.—On admission, child born, except the head, patient pulseless, and died 40 minutes after admission.

Cause of death: *Obstetric shock.*

(9) K.602, Para. 13, Age 39.—Patient admitted in a very weak condition suffering from albuminuria and myocarditis complicating pregnancy, died 12 hours after admission.

Cause of death: *Myocarditis.*

(10) K.768, Para. 1, Age 30.—A primipara admitted with history of having forceps applied before admission, and delivery not affected; craniotomy performed in hospital. Patient died two days later.

Cause of death: *Acute sepsis.*

(11) K.790, Para. 6, Age 36.—Patient admitted in an unconscious condition, with history of having fourteen eclamptic fits; did not regain consciousness, and early became cyanosed, dying within 48 hours of admission.

Cause of death: *Puerperal eclampsia.*

(12) A.N.828, Para. 13, Age 42.—Patient admitted suffering from albuminuria, general œdema, pulse unaccountable. Eclampsia developing 1½ hours after admission, patient dying 3½ hours after

Cause of death: *Eclampsia exhaustion.*

(13) A.N.997, Para. 9, Age 37.—Patient admitted suffering from hyperemesis gravidarum. Patient became progressively worse, although induction of abortion was performed to relieve the condition.

Cause of death: *Hyperemesis gravidarum, exhaustion.*

Infantile Deaths.

32 infants died in the institution during the year; 31 were children born in hospital; 1 was a child admitted with mother during the puerperium.

Causes of death were as follows:—

Premature birth, ...	20
Debility, ...	4
Convulsions after eclampsia, ...	3
After ante-partum hæmorrhage, ...	2
After difficult forceps delivery, ...	1
Bronchitis, ...	1
Epistaxis, ...	1
	32

Causation of Still-Births.

The number of still-births for the year is 50, and the probable causes were as follows:—

Albuminuria,	13	Macerated fœtus,	5
Anencephalus,	2	Malpresentation,	1
Ante-partum hæmorrhage,	3	Premature after toxæmia of pregnancy,	2
Contracted pelvis, craniotomy,	2	Placenta Prævia,	4
Contracted pelvis, forceps delivery,	4	Prolapsed cord,	2
Delayed labour,	5	Toxæmia of pregnancy,	2
Eclampsia,	2		—
Hydrocephalus,	2		50
Impacted head after breech presentation,	1		—

Out-Patient Department.

During the year a number of cases suffering from abnormal conditions affecting pregnancy and from post-natal conditions received advice at the clinic.

The clinic is held three times a week for women suffering from conditions which may be the result of abnormal and difficult labour.

Out-Patient Department.—Ante-Natal Cases.

Parishes	Normal	Contracted Pelvis	Toxæmias of Pregnancy	Ante-partum Hæmorrhage	Abortion	Pyelitis	Pseudo-Cyesis	Others*	Total
Avondale,	1	...	1	...	...	...	...	...	2
East Kilbride,	...	...	1	...	...	...	...	...	1
Glasford,	...	...	..	...	...	...	...	...	...
Stonehouse,	5	...	1	...	...	...	...	...	6
Blantyre,	12	1	3	2	1	1	...	...	20
Bothwell,	89	7	10	5	6	4	1	...	122
Cambuslang,	17	1	3	2	...	...	...	...	23
Cambusnethan,	8	1	1	...	...	1	...	...	11
Dalserf,	10	2	3	2	1	...	...	...	18
Dalziel,	14	...	1	...	1	...	...	...	16
Hamilton,	4	2	1	...	...	...	...	...	7
New Monkland,	31	1	1	1	...	...	...	...	34
Old Monkland,	17	1	1	...	...	...	...	1	20
Shotts,	2	1	1	5	1	...	...	...	10
Lower Ward,	7	1	3	...	...	...	...	...	11
Upper Ward,	14	2	1	...	...	...	...	...	17
	231	20	32	17	10	6	1	1	318

* Cardiac Disease, ... 1

Reattendances, 116.

Gynæcological Cases.

Parish.	Endometritis	Dysmenorrhœa	Amenorrhœa	Sterility	Cervical Lacerations	Perineal Lacerations	Uterine Displacements	Rectocele	Cystic Ovary	Cystitis	Pruritis	Erosion of Cervix	Salpingitis	Uterine Fibroid	Lumbar Pain	General Debility	Abdominal Adhesions	Neurosis	Others*	Total
Avondale, -	...	1	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	1
East Kilbride,	6	...	...	4	1	...	4	...	...	...	...	...	...	...	...	...	...	...	...	15
Glasford, -	5	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	5
Stonehouse, -	...	...	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
Blantyre, -	7	13	...	...	9	...	16	...	...	...	...	...	1	...	2	...	...	...	...	48
Bothwell, -	26	19	22	5	19	...	14	...	4	...	...	...	...	1	...	7	4	3	...	34
Cambuslang,-	3	...	...	...	7	...	2	...	...	...	...	...	...	...	...	...	...	...	..	12
Cambusnethan,	...	5	...	...	19	...	1	...	...	...	...	4	...	...	...	...	...	...	...	29
Dalserf, -	7	..	...	...	11	...	5	...	2	1	...	...	1	...	...	1	...	...	..	28
Dalziel, - -	2	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	1	6
Hamilton, -	2	...	...	2	...	1	...	...	...	...	1	...	...	...	...	...	...	...	..	6
New Monkland,	8	...	4	...	1	...	1	1	...	...	...	...	...	...	...	2	2	...	1	19
Old Monkland,	...	4	...	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...	..	7
Shotts, - -	3	...	2	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	..	18
Lower Ward,	9	...	...	...	11	...	4	...	...	...	...	...	...	...	...	2	...	...	..	26
Upper Ward,	6	...	...	...	2	...	...	2	...	...	...	...	...	1	...	...	...	...	..	11
	84	42	29	11	100	2	50	3	6	1	1	4	2	3	2	13	6	3	1	264

* Appendicitis, 1. Constipation, 1.

Laboratory Examinations.—There were 523 specimens sent to the County Laboratory for examination, and the results were as follows :—

		Positive.	Negative.
Urine (167)			
Albumen pus, &c.,	... ...	122	45
Eye discharge (6),	... ...	—	6
Throat swabs (8),	... ...	*1	7
Swabs from Cervix Uteri (2),	...	—	2
Sputum for T.B. (2),	... ...	1	1
†Placental Blood (337),	... ...	3	310
† Blood Lysed,	...	19	
† Serum Insufficient,		3	
† Serum Anticomplementary,		2	
Tissue from Cervix Uteri (1)		No evidence of malignancy.	

* Diphtheria.

Training of Pupil-Midwives.

During the year 25 pupils were admitted for training, bringing the total number of pupils trained since the Institution was recognised as a training school up to 159.

	Nurses admitted.	Free training.	Deposit only.	Fee paying.	Total Fee.
1921-22, ...	13	10	—	3	£60
1923, ...	17	7	—	10	144
1924, ...	21	1	5	15	199
1925, ...	26	1	6	19	373
1926, ...	26	—	2	24	500
1927, ...	12	—	4	8	185
1928, ...	19	2	10	7	180
1929, ...	25	1	15	9	200
	159	22	42	95	£1,841

The reduction in numbers for the year 1927 was due to the extended period of training.

Early in the year, the Central Midwives Board intimated that the hospital would not be recognised as a training centre after November, 1929, unless arrangements were made for providing each pupil midwife with at least five extern cases in addition to the course of indoor training. Two arrangements were made to meet this requirement, and both have been successful; (1) the Royal Maternity Hospital, Glasgow, agreed to provide outdoor training for one pupil a month at a charge of £3 3s., inclusive of board and lodging; (2) subject to their recognition as teachers by the Central Midwives Board, midwives in Bellshill were asked and agreed to train pupils in outdoor work. A midwife is paid the sum of 15s. per case, and the balance of her fee, 10s., is paid by the patient. Pupils attend only in cases where mothers agree to accept their services, and the financial inducement of 15s. provided more cases than were necessary.

During the year the following alterations and additions to the hospital were carried out.

Sterilizing Plant. — The steam sterilizing plant has been completely overhauled.

Operating Theatre. — The operating theatre floor, which was previously a wooden one, has now been replaced by concrete.

Out-Patient Department.—A new building has been erected for the purpose of an out-patient department and lecture room for pupil-midwives. The accommodation consists of lecture hall and three adjoining rooms, one of which is used as a dressing-room, a second for the examination and treatment of patients, and a third for the use of the Medical Officer.

Septic Tank.—A new sewage tank has been built on a site further removed from the hospital buildings, owing to unsatisfactory condition of old tank.

Receipts from Patients.

Receipts from Patients, ...	£753	16	5
Pupil-midwives' Premiums, ...	200	0	0
	£953	16	5

Staff.

The staff is as follows:—

1 Physician-Superintendent.
1 Consulting Surgeon.
1 Anæsthetist.
1 Matron.
3 Sisters.
3 Staff Nurses.
1 Typist.
9 Maids.
1 Chauffeur.
4 Stoker-gardeners.

In addition to the permanent staff, there are 16 nurses taking the qualifying course in midwifery.

Calderbank House, Baillieston.

Physician Superintendent—William Glasgow, M.B., Ch.B.
Consulting Otologist—James Adam, M.D., F.R.F.P.S.(G.).
Matron—Mrs. MacDougall.

Administration.

Accommodation.—Remains unchanged, and consists of 14 adult beds, 18 treasure cots, and 36 children's cots.

Staff.—Nursing staff consists of Matron, 1 sister, 2 staff nurses, and 8 probationers The domestic staff consists of 1 cook, 2 laundry-maids, and 5 maids. There is an out-door staff of gardener, assistant gardener, and an apprentice gardener.

Buildings and Grounds.—During the year the saddle-back boiler of the Institution, which was used for heating the greenhouses, was pronounced defective and unfit for further repair, and it was replaced by a Lumby's sectional boiler.

Electric light was installed in the Nurses' Home.

For the purpose of treating premature and marasmic infants, one of the small rooms on the upper floor was supplied with two electric radiators, in order to be able to keep that room at a high and even temperature.

Admissions and Discharges.—	Infants (Under 1 year).	Children (1-5 years).	Adults.
In residence, 1st January, 1929,	10	22	6
Admitted during the year, 1929,	193	226	240
Discharged during 1929,	166	230	239
Died during 1929,	16	4	1
In residence, 31st December, 1929,	21	14	6

Child Welfare Centres and Institutions from which Admissions were Arranged.

Airdrie,	42	Shotts,	23
Baillieston,	42	Tannochside,	15
Bellshill,	83	Uddingston,	26
Blantyre,	49	Ear, Nose, and Throat Clinic,	73
Cambuslang,	43	Bellshill Hospital,	46
Larkhall,	78	Motherwell Hospital,	6
Newarthill,	34	Longriggend Sanatorium,	2
New Stevenston,	32	Shotts Sanatorium,	1
Newmains,	25		

In addition admitted from :—

Upper Ward,	15	Through the Public Health Department,	11
Lower Ward,	13		

Conditions Treated :—

ADULTS.

Ante-Natal—

Debility,	13	Albuminuria,	9
Hyperemsis Gravidarium,	8	Pyelitis,	6
Varicose Veins,	3	Threatened Abortion,	3
Cardiac,	2	Anæmia,	2
Bronchitis,	2	Neuritis,	2
Hæmorrhoids,	1	Previous Miscarriage,	1
Goitre,	1	Chorea,	1
Mental Instability,	1	Nothing abnormal found,	10
			—65

Post-Natal—

Debility,	88	Cardiac,	11
Anæmia,	8	Puerperium,	7
Albuminuria,	5	Uterine Sub-involution,	5
Mastitis,	4	Bronchitis,	3
Gastro-Intestinal,	3	Phlegmasia Alba Dolens,	2
Neuritis,	2	Rheumatism,	1
Goitre,	1	Skin,	1
Pernicious Anæmia,	1	Phlebitis,	1
Nervous Debility,	1	Nothing abnormal found,	1
			—145

Gynæcological—

Post-operative Debility,	4	Leucorrhœa,	2
Dysmenorrhœa,	3	Metrorrhagia,	1
Oophoritis,	2	Retro-verted Uterus,	1
Endometritis,	1	Prolapsus Uteri,	1
			—15

Others—

Ex-Ophthalmic Goitre,	2	Erythema Nodosum,	1
Anæmia,	2	Achalasia,	1
Pleurisy,	1	Pernicious Anæmia,	1
Pre-Patellar Bursitis,	1	Chronic Nephritis,	1
Tonsils and Adenoids,	1	Nervous Debility,	1
Cardiac,	1	Gastro-Intestinal,	1
Obesity,	1		—15

CHILDREN.

Ear, Nose, and Throat,	85	Enteritis,	9
Debility,	29	Skin,	6
Post-pneumonia,	9	Bronchitis,	5
Marasmus,	6	Phimosis,	2
Convulsions,	2	Mental Deficiency,	3
Worms,	2	Tuberculous Peritonitis,	1
Empyema,	2	Laryngitis Stridulosa,	1
Nephritis,	1	Epilepsy,	1
Talipes Equino Varus,	1	Infantile Paralysis,	1
Pyelitis,	1	Gastritis,	1
Anal Prolapse,	1	With Mother,	1
Burns,	1	Nothing abnormal found,	2
Rickets,	53		—226

INFANTS.

With mother,	100	Respiratory,	7
Phimosis,	13	Debility,	6
Enteritis,	7	Convulsions,	3
Skin,	5	Septic Adenitis,	3
Marasmus,	12	Gastritis,	2
Eyes,	3	Mongolism,	1
Congenital Pyloric Stenosis,	1	Erb's Paralysis,	1
Ear, Nose, and Throat,	1	Tetany,	1
Tuberculous Adenitis,	1	Nothing abnormal found,	7
Congenital Debility,	19		—193

Results.—

	ADULTS.	CHILDREN.	INFANTS.
Discharged:—			
Well,	152	99	128
Improved,	57	109	31
I.S.Q.,	13	12	5
Died,	1	4	16
Transferred to:—			
Bellshill Hospital,	16	—	—
Longriggend Sanatorium,	1	1	—
Motherwell Hospital,	—	8	1
Shotts Sanatorium,	—	1	—
Sick Children's Hospital,	—	—	1

The causes of deaths recorded were as follows: — Congenital debility, 8; marasmus, 4; gastro-enteritis, 4; broncho-pneumonia, 2; convulsions, 1; bronchitis, 1; valvular disease of heart, 1 (adult).

Von Pirquet's Reaction.—In November, Von Pirquet's cutaneous test on all children admitted was commenced as part of the routine examination.

Since then this test has been done in 66 children, with a positive result in 3 cases. One of these cases was taken home at parent's request and strongly against advice, and it has been learned that the child died shortly afterwards. The other two "positive" cases were still in the Institution on 31st December, 1929.

Ear, Nose, and Throat.—The following conditions were treated :—

Enlarged Tonsils and Adenoids,	75
Otorrhœa,	7
Rhinitis,	2
Foreign body in Nostril,	1
Achalasia,	1
Mastoid,	1
Retro-Pharyngeal Abscess,	1

Artificial Light Treatment—In-door Patients.

	Infants and Children.	Adults.
Receiving treatment, 1st January,	11	—
Commenced treatment during 1929,	112	2
Receiving treatment, 31st December,	17	—

Conditions treated and results :—

Condition.	Discharged. No.	Well.	Improved.	I.S.Q.	Worse and Treatment Stopped.	Continuing.	Stopped on own responsibility.
Adults.							
Anæmia,	1	1	—	—	—	—	—
Alopecia,	1	—	—	1	—	—	—
Children and Infants.							
Debility,	45	17	15	6	—	7	6
Rickets,	53	12	25	10	—	6	8
Skin,	5	3	2	—	—	—	—
Marasmus,	11	3	1	2	1	4	2
Ear, Nose, and Throat,	2	1	1	—	—	—	—
Congenital Debility,	1	—	—	1	—	—	—
Adenitis,	1	—	—	1	—	—	1
Infantile Paralysis,	1	—	1	—	—	—	—
Convalescent Pneumonia.	3	3	—	—	—	—	—
T.B. Peritonitis,	1	—	—	1	—	—	—

History of case reported in column, "Worse, and Treatment stopped."—G.M., aged 1 10-12th years, admitted as "marasmus"; weight, 12 lbs. 10 oz.; lost weight for first four weeks, then regained a little; at the end of six weeks was 1 oz. lighter than on admission. Ultra-violet light treatment was stopped for three weeks, and at the end of that period he was at the original weight. The treatment was re-commenced, and for two months his weight and general condition showed slight improvement. He then started losing weight again, and the ultra-violet treatment was again stopped. From that time till his discharge (contact chickenpox) there was a very slow but steady improvement. No further ultra-violet ray treatment was given.

Out-door Patients.

	Infants and Children.	Adults.
Under treatment, 1st January, - - - -	5	2
Commenced treatment during 1929, - - -	19	5
Under treatment 31st December, - - -	7	3

Conditions treated and results:—

Condition.	Discharged.				Worse and Treatment stopped.	Continuing.	Stopped on own Responsibility
	No.	Well.	Improved.	I.S.Q.			
Adults.							
T.B. Adenitis,	5	—	2	1	—	2	1
Alopecia, -	1	—	—	1	—	—	—
Lupus, -	1	—	—	—	—	1	—
Infants and Children.							
Rickets, -	10	—	3	5	—	2	8
T.B. Adenitis,	9	1	3	2	—	3	3
Debility, -	4	—	1	1	—	2	1
Infantile Paralysis, -	1	—	1	—	—	—	—

Infectious Diseases.—During the year 8 cases were transferred to the County Hospital, Motherwell, for treatment. In November the Institution was emptied and thorough disinfecting done, because of an outbreak of chickenpox.

The conditions necessitating transfer and dates on which they occurred were as follows:—

1st January,	- -	Ophthalmia,	- - 1
10th January,	- -	Empyema,	- - 1
15th March,	- -	Empyema,	- - 1
6th April,	- -	Pertussis,	- - 1
17th May,	- -	Measles,	- - 1
18th September,	- -	Chickenpox,	- - 3
14th November,	- -	Pneumonia,	- - 1

PLACE OF RESIDENCE OF MIDDLE WARD CASES ARRANGED ACCORDING TO PARISH.

Avondale,	- - - 2	Cambusnethan,	- - - 28
East Kilbride,	- - - 8	Dalziel,	- - - 5
Stonehouse,	- - 8	Hamilton,	- - 10
Blantyre,	- - - 47	Old Monkland,	- - - 56
Bothwell,	- - 232	New Monkland,	- - 51
Cambuslang,	- - - 40	Shotts,	- - - 46
Dalserf,	- - - 83		

County Hospital, Blantyre.

Physician-Superintendent.—Douglas Brown, M.B., Ch.B., D.P.H.

Sister-in-Charge.—Miss Keir.

Accommodation.—The accommodation for patients is 10 cots and 7 beds.

Staff.—The staff consists of charge-sister, 2 staff nurses, 3 probationers, 3 maids, and 1 gardener.

Building and Grounds.—No work of any import has been undertaken on buildings or grounds during the year.

Cases Treated.—Twelve cases were under treatment on 1st January, 1929, and during the year 120 cases were admitted, 116 were discharged, and 3 died, leaving 13 cases under treatment at the end of the year.

Places of Residence.—Of the 120 cases admitted, 113 resided in the Middle Ward; 1 in Upper Ward; 2 in Lower Ward; 2 in Burgh of Lanark; and 1 in the Burgh of Hamilton. The parishes of residence of patients admitted from the Middle Ward were:—

Avondale,	1	Cambusnethan,	10	Old Monkland,	3
Blantyre,	20	Dalserf,	7	Shotts,	13
Bothwell,	41	Hamilton,	3	Stonehouse,	1
Cambuslang,	12	New Monkland,	2		

Ages of Patients.—The ages of patients under treatment were as follows:—

Children:—

Months.		Years.		
-6	6-12	1-2	2-5	Total.
15	10	5	4	34

Mothers:—

Years.						
-20	-25	-30	-35	-40	Over 40	Total.
10	25	19	15	11	5	85

NATURE OF ADMISSIONS.—The conditions which necessitated admission were :—

CHILDREN :—

Mothers in hospital,	9	Marasmus,	9
Malnutrition,	12	Enteritis,	2
Rickets,	1	Glaucoma,	1
			34

MOTHERS :—

Post-natal—		Ante-natal—	
Debility,	20	Debility,	24
Abortion,	10	Albuminuria,	5
Anæmia,	1	Cardiac Disease,	2
Cardiac Disease,	2	Varicose Veins,	4
Mastitis,	2	Skin Disease,	1
Jaundice,	1	Leucorrhœa,	1
		Nephritis,	1
	36		38

Gynæcological—		Others—	
Perineal Tear,	2	Phlebitis,	1
Endometritis,	2	Rheumatoid Arthritis,	1
Leucorrhœa,	1	Eczema of Legs,	1
Cystocele,	1	Influenza,	1
Sterility,	1		
	7		4

RESULTS OF TREATMENT.—57 cases were discharged well, 34 improved, 9 I.S.Q., 15 were transferred to Bellshill Hospital, 1 to Motherwell Hospital, and 3 children died.

The causes of death were as follows :—

Marasmus,	2
Broncho-pneumonia,	1

III. GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings "Houses let in Lodgings," "Tents, Vans, and Sheds," "Workshops," "Scavenging," "Private Streets," "Nuisances," "Interments," &c.

Housing.

Post-War Housing Scheme.—The following tabular statement shows the progress made in connection with the erection of State-aided houses during the years 1921 to 1929, inclusive :—

Year.	Houses occupied.	Houses Ready for occupation.	Houses in progress.	Total.
1921, ...	253	85	2,300	2,638
1922, ...	1,344	152	1,822	3,318
1923, ...	3,054	65	297	3,416
1924, ...	3,365	1	168	3,534
1925, ...	162	32	606	800
1926, ...	397	123	1,588	2,108
1927, ...	1,707	147	1,354	3,208
1928, ...	3,033	46	501	3,580
1929, ...	3,541	1	208	3,750

The position of the post-war housing scheme at the close of the year is shown in detail in the following statistical information supplied by Mr. P. C. Smith, the Committee's Housing and Town Planning Engineer :—

Progress Chart for Period ended 4th January, 1930.

SLUM CLEARANCE.

Scheme	Houses occupied	Houses ready for occupation	Houses in progress	Painting, &c.	Joiner finishing	Plastered or ready for Plasterer	Slated or ready for Slater	Ready for roof	Main joist level	Sleeper joist level	Foundations
ouses completed, -	1,416	—	—	—	—	—	—	—	—	—	—
ringhill (transferred), -	47	1	—	—	—	—	—	—	—	—	—
llside, - - -	64	—	28	10	18	—	—	—	—	—	—
emysshill, No. 2, -	—	—	84	—	16	28	28	12	—	—	—
lsburgh (Main Street), -	—	—	24	—	—	—	16	—	4	4	—
Totals, - -	1,527	1	136	10	34	28	44	12	4	4	—

SUBSIDY.

ouses completed, -	2,014	—	—	—	—	—	—	—	—	—	—
erton Road No. 3,	—	—	52	—	—	—	12	8	12	20	—
enboig No. 2, -	—	—	20	—	—	—	—	—	—	20	—
Totals, - -	2,014	—	72	—	—	—	12	8	12	40	—

Dairies.

One additional licence was granted during 1929, under the Milk (Special Designations) Order (Scotland), 1923, making a total of 14, while two applications were being dealt with at the close of the year. Details are shown in the following tabular statement:—

	Licensee.	Premises.	Nature of Licence.	Daily yield of milk at last Inspection.
1.	Lord Hamilton of Dalzell,	Dalzell Home Farm, Motherwell,	Certified,	63 gallons,
2.	Middle Ward District Committee,	Hairmyres Colony, East Kilbride,	Do.,	79 ,,
3.	Eben More & Co.,	Dalmacoulter Farm, by Airdrie,	Do.,	42 ,,
4.	William Fleming,	Auldton Farm, Ashgill.	Do.,	76 ,,
5.	James Wilson,	Westburn Farm, Cambuslang,	Do.,	35 ,,
6.	John Hamilton,	Low Mains Farm, East Kilbride,	Do.,	50 ,,
7.	Lanark District Board of Control.	Hartwood Home Farm, Hartwood,	Do.,	110 ,,
8.	Mrs. James Murray,	Stramolloch Farm, Chapelton,	Grade "A" (T.T.),	51 ,,
9.	Thomas Lambie,	Drumbuie Farm, East Kilbride,	Do.,	48 ,,
10.	John Strachan,	Udstonhead Farm, Strathaven.	Do.,	80 ,,
11.	Andrew Gilchrist,	Brae Farm, Strathaven,	Do.,	37 ,,
12.	Alexander Wilson,	South Carnduff Farm, Strathaven,	Do.,	44 ,,
13.	Andrew Wood,	Nerston Farm, East Kilbride,	Grade "A"	62 ,,
14.	John Fleming,	Bruntland Dairy, Waterloo.	Do.,	56 ,,

Drainage and Sewage Disposal.

The work done in this connection is dealt with in the Report of the District Sanitary Inspector, and in the Rivers Pollution and Prevention Section of the County Report.

Pithead Baths.—The last annual report contained a note with the plans and arrangements of the first pithead baths to be provided in the district.

During the year under review another development in this connection falls to be noted. At the new colliery at Kingshill, Allanton, the Coltness Iron Company, Ltd., has provided pithead baths for the use of their employees there, and report that the workmen are taking full advantage of the facilities offered. The Company states that the cost, including cleaning, water, &c., amounts to about 9½d. per man per week, of which the men pay 4d. per week, the balance being met by the Company. A canteen is included in the building, and is self-supporting.

Water Supply.

A note of the samples of water taken during the year for analysis, together with the subsequent results and improvements, will be found in the Report of the District Sanitary Inspector.

Staffing Arrangements.

There was one alteration in the Medical Staff during 1929, namely, the appointment of Dr. Douglas Brown to the vacancy incurred by the transfer of Dr. George Murray to the County Medical Staff.

BUILDING REGULATIONS.

The total number of plans lodged for approval during the year was the same as last year, viz., 112. A considerable proportion of these had not been prepared in accordance with the By-laws, and it was only after much correspondence and meetings with the Architects that matters were adjusted. All the disconformities were reported to and dealt with by the Committee. As in the previous year, two sets of plans were withdrawn.

During the course of construction of the buildings, 1,954 inspections were made, resulting in the detection of a number of contraventions, which were reported to and dealt with by the Committee.

959 smoke-tests were made of the drains and plumber work connected with the sanitary fittings of new properties. In a number of cases the work was found defective and re-tests 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, 73 plans were received and approval granted for various erections of a minor character.

New Buildings under By-law No. 41.—Houses and shops, 43; workshops, 7; public buildings, 21; and other buildings, 2; total plans, 73.

Alterations in the Mode of Occupancy, under By-law No. 51.—Houses and shops, 19; workshops, 8; public buildings, 12; and other buildings, 0; total plans, 39.

Housing, &c., Act, 1923.—12 applications, comprising 22 houses, were dealt with. A number of the plans and specifications required adjustment, but all were made to conform to the Regulations issued by the Scottish Board of Health. Operations were commenced during the year in 8 cases. A large number of houses have been completed, and Certificate B, for grant earned, has been issued to 21 owners, in respect of 103 houses.

Private individuals continue to take advantage of the benefits under this scheme, and little trouble is experienced with departures from the approved plans and specifications.

Housing (Financial Provisions) Act, 1924.—Local Authority's Schemes—154 houses were inspected and reported on, and Certificate B issued for same.

Housing (Financial Provisions) Act, 1924.—Private Enterprise—No new applications received during the year.

Housing (Scotland) Act, 1925.—6 applications (embodying 75 houses of two apartments), under Section III of the above Act, were received for the erection and conversion of existing dwellings into two-apartment houses (see Table II).

The plans for these were, in all cases, reported to the Public Health and Housing Committees.

Housing (Rural Workers) Act, 1926.—During the year 11 applications were received for assistance in aid of reconstruction and improvement of 25 dwellings for the accommodation of agricultural workers and other persons whose economic condition is substantially the same as such workers, and a grant was sanctioned by the Committee in each case.

Building operations in connection with 1 application (1 dwelling) were completed during the year, and Certificate B for payment of grant issued to the applicant.

TABLE I.—NUMBER OF SETS OF PLANS LODGED DURING THE YEAR 1929, 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 Build-ings.	Others.
Avondale, - -	5	1	2	...	...	...	...	...
East Kilbride, -	11	...	1	...	3	2	1	...
Glasford, - -	...	...	...	...	1	..	...	...
Stonehouse, - -	...	...	...	...	1	...	...	...
Blantyre, - -	1	...	2	...	2	...	2	...
Bothwell, - -	3	1	5	...	5	4	1	...
Cambuslang, - -	4	2	5	1	1	...	1	...
Cambusnethan, -	5	...	...	1	3	...	...	...
Dalserf, - -	2	1	1	...	1	..	2	...
Dalziel, - -	...	1	...	...	...	...	...	...
Hamilton, - -	...	...	...	...	1	...	...	...
New Monkland, -	4	1	1	...	...	2	3	...
Old Monkland, -	6	...	2	...	...	...	2	...
Shotts, - - -	2	...	2	...	1	...	...	...
MIDDLE WARD, -	43	7	21	2	19	8	12	...
TOTAL FOR 1928, -	58	2	12	4	21	4	11	...

* In this column are included plans for additions to existing dwelling-houses. In this way 19 apartments were added to 12 houses.

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 1929.

PARISH.	NEW BUILDINGS OF						TOTAL.
	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments.	Five Apartments and upwards.	Shops.	
Avondale, - -	...	1	2	...	2	1	6
East Kilbride, -	...	...	3	6	2	1	12
Glasford, - -	...	...	...	...	...	...	...
Stonehouse, -	...	...	...	...	...	...	...
Blantyre, - -	...	1	...	...	...	...	1
Bothwell, - -	...	...	...	4	...	3	7
Cambuslang, -	...	24	33	...	14	3	74
Cambusnethan, -	...	32	16	2	3	2	55
Dalserf, - -	...	...	...	...	...	3	3
Dalziel, - -	...	...	...	...	...	...	...
Hamilton, - -	...	...	...	...	...	...	...
New Monkland,	...	...	1	...	...	3	4
Old Monkland, -	...	1	2	3	...	3	9
Shotts, - -	...	16	4	...	...	1	21
MIDDLE WARD,	...	75	61	15	21	20	192
TOTAL FOR 1928,	...	69	122	82	13	11	297

Meat Inspections—Slaughterhouses, &c.

ALEXANDER CAMERON, M.R.San.I.

As General Superintendent of Abattoirs and District Meat Inspector, I have to submit the following report:—

It will be observed from Table I that the total number of animals slaughtered at the various abattoirs was 21,570, out of which 7,930 animals were found to contain disease in some form.

Of the 7,930, there were 1,562 carcases totally or partially condemned, and 6,368 carcases found with local conditions in which organs only were condemned, these combined being 36·71 per cent. of the total animals slaughtered, as compared with 28·51 per cent. the previous year.

Of the 10,072 cattle slaughtered at the various abattoirs, 149 were sent in by the County Veterinary Inspector under the Tuberculosis Order, and of these 122 were totally or partially condemned, and the remainder passed, being cases in which organs only were condemned.

Table II and III show in detail, for each slaughter-house, the class of animals 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.	Number.	Carcases.				Organs only.		Carcases.				Organs only.	
		Wholly.		Partially.				Wholly.		Partially.			
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cows,	6,715	396	5·89	993	14·78	2,713	40·41	44	·65	22	·32	1,436	21·39
Heifers,	2,052	10	·48	23	1·12	366	1·75	3	·14	1	·04	228	11·11
Bulls,	169	3	1·77	3	1·77	17	10·05	—	—	2	1·18	26	15·38
Bullocks,	1,136	—	—	5	·44	81	7·13	1	·08	1	·08	126	11·09
Calves,	1,996	10	·50	—	—	1	·05	20	1·00	—	—	—	—
Sheep,	8,432	—	—	—	—	—	—	15	·17	3	·03	1,277	15·14
Swine,	1,070	2	·18	3	·28	62	5·79	2	·18	—	—	35	3·27
Total,	21,570	421	8·82	1,027	18·39	3,240	65·18	85	2·22	29	1·65	3,128	77·38

Bellshill.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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, -	2,908	259	410	1,147	20	8	887
Heifers, -	527	—	13	72	1	1	37
Bulls, -	73	2	2	9	—	1	8
Bullocks, -	270	—	1	14	1	1	39
Calves, -	38	2	—	1	—	—	—
Sheep, -	2,920	—	—	—	1	—	430
Swine, -	158	—	—	2	—	—	2
Total, -	6,894	263	426	1,245	23	11	1,403

Bellshill.—TABLE III.—OTHER DISEASES FOR WHICH CARCASES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers	Bulls.	Bullocks.	Sheep.	Total
Benign Neoplasms, -	—	—	—	1	—	1
Dropsy, - - -	6	—	—	—	—	6
Emaciation, - -	1	—	—	—	1	2
Gangrene, - -	2	—	—	—	—	2
Injury, - - -	5	—	1	—	—	6
Jaundice, - - -	1	—	—	1	—	2
Johne's Disease, -	1	—	—	—	—	1
Pleurisy, - - -	1	—	—	—	—	1
Pneumonia, - -	1	—	—	—	—	1
Septic Metritis, -	2	—	—	—	—	2
Septic Pericarditis, -	1	—	—	—	—	1
Septic Peritonitis, -	5	—	—	—	—	5
Pyæmia, - - -	2	2	—	—	—	4
	28	2	1	2	1	34

Blantyre.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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, -	1,541	71	288	544	8	3	222
Heifers, -	451	4	3	139	—	—	74
Bulls, -	17	—	—	—	—	1	3
Bullocks, -	296	—	4	28	—	—	36
Calves, -	797	3	—	—	11	—	—
Sheep, -	1,720	—	—	—	7	—	633
Swine, -	444	2	—	31	2	—	24
Total, -	5,266	80	295	742	28	4	992

Blantyre.—TABLE III.—OTHER DISEASES FOR WHICH ANIMALS WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Bulls.	Calves.	Sheep.	Swine.	Total.
Distomatosis, - -	—	—	—	1	—	1
Emaciation, - - -	1	—	—	4	—	5
Enteritis, - - - -	—	—	4	—	—	4
Immaturity, - - -	—	—	4	—	—	4
Injury, - - - -	1	—	—	—	—	1
Peritonitis, - - -	3	—	—	1	—	4
Pleurisy, - - - -	—	1	1	—	1	3
Pyæmia, - - - -	—	—	2	—	—	2
Sarcoma, - - - -	2	—	—	—	—	2
Septicæmia, - - -	—	—	—	—	1	1
Septic Metritis, - - -	1	—	—	—	—	1
Septic Pericarditis, - -	3	—	—	—	—	3
Strongylosis, - - -	—	—	—	1	—	1
	11	1	11	7	2	32

Larkhall.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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, -	1,360	33	264	618	7	10	112
Heifers, -	287	2	4	45	1	—	30
Bulls, -	25	1	1	6	—	—	6
Bullocks, -	131	—	—	13	—	—	13
Calves, -	247	2	—	—	5	—	—
Sheep, -	772	—	—	—	5	1	105
Swine, -	112	—	3	13	—	—	9
Total, -	2,934	38	272	695	18	11	275

Larkhall. — TABLE III.—OTHER DISEASES FOR WHICH CARCASES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers.	Calves.	Sheep.	Total.
Carcinoma, - - - -	1	—	—	—	1
Emaciation, - - - -	2	—	—	1	3
Gastro-Enteritis, - - - -	—	1	2	2	5
Immaturity, - - - -	—	—	2	—	2
Injury, - - - - -	5	—	—	2	7
Johne's Disease, - - - -	1	—	—	—	1
Pericarditis, - - - - -	1	—	—	—	1
Pleurisy, - - - - -	1	—	—	—	1
Pneumonia, - - - -	—	—	—	1	1
Pyæmia, - - - - -	2	—	1	—	3
Septic Mastitis, - - -	1	—	—	—	1
Septic Metritis. - - - -	1	—	—	—	1
Septicæmia, - - - -	2	—	—	—	2
	17	1	5	6	29

Strathaven.—TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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, -	704	19	19	319	7	1	70
Heifers, -	328	2	2	53	1	—	11
Bulls, -	35	—	—	2	—	—	2
Bullocks, -	34	—	—	2	—	—	2
Calves, -	639	1	—	—	4	—	—
Sheep, -	1,398	—	—	—	—	—	34
Swine, -	278	—	—	16	—	—	—
Total, -	3,416	22	21	392	12	1	119

Strathaven.—TABLE III.—OTHER DISEASES FOR WHICH CARCASES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cows.	Heifers.	Calves.	Total.
Emaciation. - - -	2	—	—	2
Pyæmia, - - - -	—	—	1	1
Septic Mastitis, - -	1	—	—	1
Peritonitis, - - -	1	—	3	4
Pneumonia, - - -	1	1	—	2
Septic Metritis, - -	3	—	—	3
	8	1	4	13

Shotts.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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, -	6	—	—	2	1	—	—
Heifers, -	21	—	—	—	—	—	—
Bulls, -	2	—	—	—	—	—	—
Bullocks, -	368	—	—	21	—	—	27
Calves, -	30	—	—	—	—	—	—
Sheep, -	14	—	—	—	—	—	—
Swine, -	3	—	—	—	—	—	—
Total, -	444	—	—	23	1	—	27

1 cow was totally condemned on account of Septic Pericarditis.

Baillieston.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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, -	36	9	6	12	1	—	7
Heifers, -	285	—	1	56	—	—	70
Bulls, -	7	—	—	—	—	—	3
Bullocks, -	22	—	—	3	—	—	9
Calves, -	224	2	—	—	—	—	—
Sheep, -	1,415	—	—	—	2	2	75
Swine, -	35	—	—	—	—	—	—
Horses, -	—	—	—	—	—	—	—
Total, -	2,024	11	7	71	3	2	164

Baillieston.—TABLE III.—OTHER DISEASES FOR WHICH CARCASES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Cow.	Sheep.	Total.
Dropsy,	—	1	1
Injury,	—	3	3
Septic Metritis,	1	—	1
Total,	1	4	5

Stonehouse. — TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASES 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,	160	5	6	71	—	—	138
Heifers,	153	2	—	1	—	—	6
Bulls,	10	—	—	—	—	—	4
Bullocks,	15	—	—	—	—	—	—
Calves,	21	—	—	—	—	—	—
Sheep,	193	—	—	—	—	—	—
Swine,	40	—	—	—	—	—	—
Total,	592	7	6	72	—	—	148

Private Slaughterhouses.

TABLE II.

District.	Animals Slaughtered. Cattle.	Calves.	Sheep.	Swine.
Greengairs,	137	—	110	16
Longriggend,	124	—	102	16
Chapelhall,	102	—	94	41
Glengowan,	143	2	121	—
Newarthill,	30	—	2	3
Cleland,	229	—	54	2
Harthill,	246	—	100	8
Total,	1,011	2	583	86

TABLE III.—ANIMALS CONDEMNED—WHOLLY OR PARTIALLY.

Animals Slaughtered.	Tuberculosis.			Other Diseases.		
	Wholly.	Partially.	Organs.	Wholly.	Partially.	Organs.
Cows, - -	1	18	100	—	—	10
Heifers, -	2	4	28	—	—	2
Bulls, - -	—	—	5	—	—	—
Bullocks, -	—	1	2	—	—	1
Calves, -	—	—	—	—	—	—
Sheep, - -	—	—	—	—	—	—
Swine, - -	—	—	—	—	—	—
Total, -	3	23	135	—	—	13

TABLE IV.—RETURN OF DISEASES FOR WHICH ORGANS WERE CONDEMNED.

Organs Condemned.	Diseases.																						
																				Cysts.			
	Tuberculosis.	Abscess.	Actinomycosis	Pericarditis	Pleurisy.	Pneumonia.	Cirrhosis.	Distomatosis.	Mammitis.	Neoplasms.	Bacterial Necrosis.	Angioma.	Œstrus Larvæ.	Thones' Disease.	Cysts.	Strongylosis.	Nephritis.	Sarco Sporidia.	Neuritis.	Echinococcus.	Cœnurus Cerebralis.	Cysticercus Tenuicolis.	Total.
Heads, -	1,249	4	41	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	1	1	1,297
Tongues, -	283	2	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	306
Lungs, -	3,343	5	—	—	13	7	—	1	—	—	—	—	11	—	—	2	—	1	—	2	—	—	3,386
Hearts, -	12	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14
Livers, -	687	225	1	—	—	—	692	1,579	—	3	44	52	—	—	—	—	—	—	—	25	—	90	3,398
Stomachs, -	410	567	10	—	—	—	—	4	—	—	—	—	—	28	—	—	—	—	—	2	—	5	1,026
Bowels, -	1,418	53	—	—	—	—	—	—	—	—	—	—	—	33	4	—	1	—	6	—	—	—	1,509
Kneys, -	48	2	—	—	—	—	—	—	—	—	—	—	—	2	10	—	—	—	—	—	—	—	68
Ulers, -	204	4	—	—	—	—	—	—	675	1	—	—	—	—	—	—	—	—	—	—	—	—	884
Uri, -	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51
Fat, - -	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Total, -	7,707	863	73	2	13	7	692	1,584	675	5	44	52	11	63	14	2	1	1	6	29	1	96	11,941

Note.—This Table does not include the Viscera of Carcases wholly or partially condemned.

Diseased Udders.—It will be observed that the total number of cows slaughtered was 6,715. Of these, 396 were totally condemned on account of generalised tuberculosis, 79 of which showed evidence of tubercle in the udder. There were 993 cows partially condemned on account of various forms of localised tuberculosis, and of these 52 had udders affected. In addition to the foregoing, there were 2,713 cows in which the disease was so localised that organs only were condemned, and in 204 of these the udder was affected. Of the total cows slaughtered, 675 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 2,052 heifers slaughtered, 10 were totally condemned, and 23 partially condemned. In 3 of the cases totally condemned the disease was present in the udder.

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, and otherwise the Meat Regulations are complied with.

The number of diseased animals found at the different abattoirs varied 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 quality of these animals. Quality generally varies in accordance with the purchasing power of the people.

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 accommodation in the seven abattoirs remains the same as last year, and is more than sufficient for the work done.

Painting and repairs generally have been sufficiently attended to during the year, as granted by the Committee. A considerable amount of rough painter work was carried out by the various staffs during the quiet period of May and June, and the remainder by local tradesmen.

The abattoirs have now reached an age that repairs are becoming more necessary. At Bellshill Slaughterhouse the equipment has been in operation for 26 years, and a number of replacements have already been carried out; now some of the hoists in the slaughtering booths are almost beyond further repair, and replacements must seriously be considered this year.

Private Slaughterhouses. — Ten licences are granted for the slaughter of cattle, sheep, and pigs, and one licence for the slaughter of sheep only. The arrangement for the inspection of meat still continues as previously reported, these private slaughterhouses being organised under the latest meat regulations. The work of inspection has gone smoothly, and the trade has in no way been hampered by the curtailed slaughtering periods.

Vans from adjacent counties and burghs continue to hawk the district, 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 are carried out in conjunction with the usual supervision of the public abattoirs and private slaughterhouses, including the inspection of shops, cold stores, &c. The butchers owning the private slaughterhouses 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 £101, as compared with £109 for the previous year. This sum was sufficient to cover all the expense for the meat Inspection over the area of the Middle Ward where private slaughterhouses exist.

A necessary and sufficient standard of protection with regard to unsound meat in the private slaughterhouses area has been maintained, indeed similar to that in areas where public abattoirs exist.

By-laws for the private slaughterhouses have been prepared, so far as the Public Health Department is concerned, and it is hoped that these will be submitted to the Local Authority and the Department of Health at an early date, in order that the approval of the

latter body may be obtained, and so put the inspection of the private slaughterhouses on a still more satisfactory basis.

The visits to private slaughterhouses and other places outside abattoirs, were as follows:—

Private slaughterhouses, ...	1,040
Butchers' shops, vans, &c., ...	3,488
Casual inspections—Farms, &c., ...	20

Public Health (Meat Inspections) Regulations (Scotland), 1924, Article 12.—No permits for meat stores were granted during the year, but one received at close of year is under consideration.

Cold Stores.—In connection with the registration of Cold Stores, &c., as required by Article 13 of the Public Health (Meat) Regulations (Scotland), 1924, the Local Authority has made the necessary arrangements for same, and a register is in order. These places are being attended to, as previously, under the Public Health Act.

During the year a large number of inspections was made to cold stores, and, generally speaking, their contents were found sound and the apartments kept in a satisfactory condition.

Unsound Meat.—At abattoirs and private slaughterhouses all condemnations have been carried out with owner's consent. The total weight of meat condemned outside of abattoirs (including private slaughterhouses, fleshers' shops, and at farms where special licences for slaughtering were authorised) amounted to 3,248 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 Middle Ward Hospitals, and advice given regarding the butcher-meat supplies. Assistance was also given in supervising the piggeries at Motherwell and Bellshill Hospitals, and in most cases the fattened pigs were turned into bacon by the Abattoir Staff at Bellshill, for the use of the various Middle Ward Institutions.

Staffing.—During the year, Mr. James M'Aulay, who was appointed Superintendent and Assistant Meat Inspector at Bellshill, in place of Mr. George Prentice, resigned his position and entered Glasgow University as a medical student. Mr. Andrew Neil, Assistant Meat Inspector and Superintendent at Baillieston Abattoir, was transferred to M'Aulay's position at Bellshill. When this change took place, the Committee had under consideration the question of discontinuing Baillieston Abattoir, but after careful enquiry and consideration, it was agreed to carry on the slaughterhouse with a full-time detention officer in charge. Mr. George Robertson, an experienced butcher, received three months' special training at Bellshill Abattoir, and was appointed to the position.

Report of the Sanitary Inspector.

HOUSING.

The administrative procedure during the year 1929, which was summarised in the information supplied to the Department of Health for Scotland, in terms of their Regulations under the Housing Acts, is given in the following tabular statement and subsequent paragraphs :—

Number of dwellings inspected, ...	545
Number of houses found unfit for human habitation,	199
Representations to Local Authority, ...	66
Closing Orders made, ...	66
Number of dwellings dealt with by Closing Orders, ...	585
Defects remedied without making Closing Orders, ...	—
Number of dwellings made fit for human habitation after Closing Orders, ...	75

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 2 dwellings;

sinks and water-supply at 12 dwellings; and

water-closets at 332 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 one-apartment houses were erected during the year, but the sanction of the Local Authority was given, in terms of Section 111 of the Housing (Scotland) Act, 1925, to the erection of 3 two-apartment dwellings by private builders, and of 72 two-apartment houses by the Local Authority.

No schemes under Part II of the Housing Act were in contemplation.

Overcrowding.—During the year under review there was no apparent diminution of overcrowding, especially in the industrial areas of the District, and action under the Public Health Act was taken against several offenders. The results, however, were most discouraging as, in almost every case, the economic circumstances of the occupiers were such that they were unable to provide adequate housing accommodation for their families, and either removed outwith the District or divided their families among relatives.

Prosecutions.—In connection with the two cases of overcrowding reported in last Annual Report as having been continued *sine die*, in one instance the family were removed to Kent by the Ministry of Labour under the Unemployment Scheme, and in the other case the occupier was ejected by the owner and took up house outwith the District.

Slum Clearance.

Closing Orders.—Satisfactory progress was made during the year towards the closure of insanitary dwellings, and 66 representations were made to the Local Authority under Section 6 of the Housing (Scotland) Act, 1925, that the following 585 dwellings were in a state so dangerous or injurious to health as to be unfit for human habitation, and a Closing Order was made in every instance :—

Locality.	Apartments.				
	1	2	3	4	Total.
Blantyre—					
22 Bardykes Road, ...	—	1	—	—	1
24-26 do., ...	3	1	—	—	4
233 Glasgow Road, ...	2	1	—	—	3
3-13 Greenside Street, ...	26	—	—	—	26
106-118 Station Road,... ...	1	4	—	—	5
1-8 Burnside Street, 17-31 Miller Street, and 86-92 Calder Street, ...	20	—	—	—	20
80-86 Main Street, High Blantyre,	5	—	—	—	5
Bellshill—					
19, 27, and 34 Addie's Square,	3	—	—	—	3
Ashley Grange (Caulfield), ...	2	1	—	—	3
Ashley Grange (Robertson), ...	2	2	—	1	5
3, 5, and 9 Calder Road, Mossend,	2	3	—	—	5

Locality.	Apartments. 1	2	3	4	Total.
Carfin—					
Bell and Back Bell Rows, ...	10	18	—	—	28
80-102 Newarthill Road, ...	12	—	—	—	12
117-119 New Stevenston Road,	2	—	—	—	2
Newarthill—					
114-122 High Street, ...	2	3	—	—	5
124-128 High Street, ... —	1	2	—	—	3
Uddingston—					
Fairview, Old Mill Road, ...	—	1	—	—	1
17 Church Street, ...	2	—	—	—	2
3-9 Porterswell, ...	3	1	—	—	4
45-57 Bellshill Road, ...	2	5	—	—	7
63-67 Bellshill Road, ...	2	6	—	—	8
40-46 Old Glasgow Road, ...	3	1	—	—	4
10-16 Church Street, ...	2	2	—	—	4
Thorniewood Rows, ...	30	19	3	—	52
Newlands Rows, Bargeddie, ...	10	25	—	1	36
Oil Works Cottage, Bargeddie,	2	1	—	—	3
Oilwork Row, Aitkenhead, ...	14	4	—	—	18
No 4 Pit, Aitkenhead, ...	2	7	—	—	9
Cambuslang—					
1-5 Buchanan Square, ...	—	3	—	—	3
2 and 14-22 Lightburn Road,	3	2	1	—	6
60-70 Lightburn Road, ...	—	4	1	—	5
11 and 17 Dalton, ...	2	1	—	—	3
21 Dalton, ...	—	—	1	—	1
17 Tabernacle Street, ...	—	4	—	—	4
Overtown—					
1-20 Castlehill Feus, ...	8	11	—	—	19
21-35 Castlehill Feus, ...	6	7	—	—	13
50-60 Castlehill Feus, ...	9	1	—	—	10
1-8 Prentice's Land, ...	6	2	—	—	8
2-8 Nelson's Land, ...	6	—	—	—	6
1-9 Clydesdale Place, ...	3	6	—	—	9
Pine Place, ...	1	—	—	—	1
Larkhall—					
1, 3, 17, & 19 Millheugh, ...	1	2	1	—	4
7-11 Millheugh, ...	2	1	—	—	3
10-12 Millheugh, ...	2	1	1	—	4
8-18 Hamilton Street, ...	2	4	—	—	6

Locality.	Apartments. 1	2	3	4	Total.
Larkhall—*Continued.*					
39-45 Hamilton Street, ...	2	2	—	1	5
1-12 Ashgill Rows, Dalserf, ...	—	12	—	—	12
13-32 Ashgill Rows, Dalserf, ...	19	1	—	—	20
21-40 Ayr Road, Rows, ...	10	14	—	—	24
Ashgill Cottage, ...	—	—	1	—	1
Torland Gate, ...	3	2	—	—	5
Hamilton—					
Old Toll House, Limekilnburn,	1	—	—	—	1
High Dykehead Rows, ...	10	8	—	—	18
11, 12 Meikle Earnock, ...	2	—	—	—	2
Baillieston—					
4-8 Longlee and 13B Buchanan Street,	2	4	—	—	6
1-3 Springhill Road, Barrachnie,	2	—	—	—	2
8-12 Springhill Road, Barrachnie,	1	1	—	—	2
21-23 Glasgow Road, Barrachnie,	3	—	—	—	3
87-89 Glasgow Road, Barrachnie,	4	—	—	—	4
Calderbank—					
Gasworks Row, Old Square, and Well Street, ...	28	4	—	—	32
Tollcross—					
Rail Row, Clyde, ...	1	13	—	—	14
Brick Kiln Row, Clyde, ...	8	—	—	—	8
Shotts—					
60-72 and 98-100 Stane Place,	12	—	—	—	12
65-75, 101-111 and 110-120 Stane Place, ...	24	—	—	—	24
84-92 Main Street, Stane, ...	1	3	1	—	5
Bridgend, ...	1	1	—	—	2
Totals, ...	350	222	10	3	585

Most of the occupants of the above houses have been given accommodation in Improvement Scheme houses of the Local Authority, and others found accommodation elsewhere.

Résumé.—When the Housing Act of 1925 came into operation, there were over 3,000 houses within the Middle Ward District on our list as unfit for human habitation. Since then Closing Orders have been made by the Local Authority in respect of 2,677 of these, and,

at the time of writing, the Committee are considering a further list prepared by the Department of 1,360 insanitary dwellings. More progress might have been made but for the many obstacles in the way, such as the provision of alternative accommodation for those displaced; nevertheless, it is most gratifying to know that the back of slumdom within this District has been broken.

Of the 2,677 houses above-mentioned, 2,589, or 97 per cent., were of the one and two-apartment type, many of which were situated in the "black spots" of the District. The total number of persons displaced through these closures was 13,000, equal to 5·6 per cent. of the Middle Ward population of 239,000, or, if one might visualise, the complete wiping out of a town similar in population and housing to that of Larkhall—not an inconsiderable achievement in such a comparatively short period.

Appeals.—A plan and proposals were approved of by the Local Authority for the reconditioning of three of the dwellings at 4-6 *Crossgates, Bellshill*, referred to on page 392 of last Annual Report. So far the improvements on one house only have been completed.

A plan was also submitted showing the conversion of 2 two-apartment dwellings, which had been vacated and not included in the appeal, into a stable and loft. The plan was approved and the work has been completed.

With regard to the insanitary property at *Napier's Square, New Stevenston*, referred to on page 397 of last Annual Report, all the work at the property was carried out, and a joint-minute was signed taking the appeal out of Court, the Appellant having paid the sum of £5 5s. towards the expenses.

Determination of Closing Orders.—The owners of the 31 houses at *Dunlop Street, Newton*, referred to on page 394 of last Annual Report, completed the work of repair on all the dwellings, similar to that performed on the house which was inspected by a Sub-Committee and found satisfactory, and the Local Authority agreed that the Closing Order be determined in respect of each of the houses in question.

Demolition Orders.—In terms of Section 10 (1) of the Housing (Scotland) Act, 1925, orders for the demolition of the following properties were made towards the close of the year by the Local

Authority, viz. :—236 and 238 *Glasgow Road, Blantyre*, 2 houses; 29, 31, and 33 *Allison Place, Glasgow Road, Blantyre*, 37 houses; 113 *Broompark Road, Blantyre*, 1 house; 9 and 11 *Vicarland Road, Cambuslang*, 2 houses; 20A *Drygate Street, Larkhall*, 3 houses; and 10G, 16, 18, 22, and 24 *Main Street, Baillieston*, 11 houses.

Re-occupying of Closed Dwellings.—*Prosecutions.*—Proceedings were instituted in Court against the owners of *Dalziel Place, Springwells, Blantyre*, referred to on page 391 of last Annual Report, for re-letting, in contravention of the statute, 9 dwellings which had been dealt with by Closing Order. After proof, the Sheriff found the reputed owner guilty and sentenced him in a fine of £5, with the alternative of 30 days' imprisonment. A notice was thereafter sent to the tenants who were still occupying the houses requiring them to remove at once, and all but two removed. Proceedings were taken against those two, and the Sheriff ordered them to remove within 14 days. On the expiry of that period one of the parties still remained in occupancy, and he was convicted and fined £3 or 15 days' imprisonment. The property has now been completely demolished.

Insanitary Dwellings.

The Department have continued to press for the introduction of modern domestic and 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 further progress has been made. The properties dealt with are briefly referred to as under :—

359-369 *Main Street, High Blantyre.*—5 one-apartment and 3 two-apartment dwellings, referred to on page 398 of last Annual Report. An inside sink and water supply were introduced to each of the two upstairs dwellings, but the necessary additional water-closet accommodation has not yet been provided.

140-158 (*new numbers* 338-358) *Main Street and* 2-4 *School Lane, High Blantyre.*—The three proposed additional water-closets agreed to be accepted by the Committee, without prejudice, have not yet been provided at this two-storey stone-built tenement, comprising 2 one-apartment, 5 two-apartment, 2 three-apartment, 1 four-apartment, and

1 five-apartment dwellings without inside sinks, water supply, and adequate water-closet accommodation, referred to on page 398 of last Annual Report.

Craighead Rows, Blantyre.—No arrangement has yet been come to with the owners of these three rows of 106 two-apartment single-storey stone-built dwellings, referred to on page 399 of last Annual Report, as to improved water-closet accommodation.

105-119 (*new numbers* 161-169) *Stonefield Road, Blantyre.*—2 one-apartment and 6 two-apartment attic dwellings without inside water supply, referred to on page 399 of last Annual Report. A further house was vacated during the year, leaving three still occupied.

5-7 *John Street, Blantyre.*—The provision of inside sinks and water supply and adequate water-closet accommodation at these 12 one-apartment and 4 two-apartment dwellings, referred to on page 399 of last Annual Report, is still under consideration.

4-14 *Alpine Street, Blantyre.*—24 one-apartment and 6 two-apartment dwellings; and 16-26 *Alpine Street*, 20 one-apartment and 10 two-apartment dwellings, without inside sinks and water supply and adequate water-closet accommodation, referred to on page 399 of last Annual Report. No further action was taken during the year.

3-13 *Greenside Street, Blantyre.*—27 one-apartment dwellings without adequate water-closet accommodation, referred to on page 364 of last Annual Report. A further Closing Order, embracing the remaining dwellings, was made during the year.

75-77 *Auchenraith Road, Blantyre.*—The question of providing adequate water-closet accommodation at this two-storey tenement, comprising 16 one-apartment and 2 two-apartment dwellings, referred to on page 400 of last Annual Report, is still under consideration.

51-59 *Glasgow Road, Blantyre.*—12 one-apartment and 6 two-apartment dwellings, referred to on page 400 of last Annual Report. The four additional water-closets agreed to be accepted by the Committee, without prejudice, were erected during the year. There are now eight closets for the eighteen occupancies.

262-272 *Main Street, High Blantyre.*—A two-storey tenement, comprising 3 one-apartment and 4 two-apartment dwellings, referred to on page 400 of last Annual Report. The question of providing additional water-closet accommodation is still under consideration.

27-31 *School Lane, High Blantyre.*—Proposals have not yet been received for the provision of adequate water-closet accommodation at this two-storey tenement, comprising 2 one-apartment and 4 two-apartment dwellings, referred to on page 400 of last Annual Report.

Douglas Park Square, Bellshill.—Referred to on page 401 of last Annual Report. No conversion of the one-apartment dwellings into houses of two apartments was carried out during the year, as none of the tenants removed.

Bothwellpark Rows, Bellshill.—2 one-apartment, 152 two-apartment, and 2 three-apartment dwellings, referred to on page 401 of last Annual Report. A special Drainage District, embracing this locality, was formed during the year, and sewerage facilities provided. The Colliery Company thereupon submitted a plan showing the proposed provision of water-closet accommodation in the proportion of one closet for every two dwellings. Exception was taken to the ratio and situation of these closets, and it was finally arranged that a closet would be provided for each dwelling in a new porch at the entrance door. The work is in progress.

Cockhill Place, Bothwellpark.—The question of providing water-closet accommodation and abolishing the existing privy-middens at these 11 two-apartment dwellings, referred to on page 401 of last Annual Report, is still under consideration, and will be dealt with when the new sewer is completed.

Hattonrigg Terrace, Bellshill.—The owners of these 32 two-apartment dwellings, referred to on page 401 of last Annual Report, having failed to submit proposals for the introduction of inside sinks and water supply, the matter was reported to the Committee, who instructed service of the Statutory Notice requiring the introduction of an inside sink and water supply to each dwelling. An appeal was lodged against the Notice on the grounds that (1) Hattonrigg Colliery had been closed down, and the date of re-opening was uncertain; (2) the tenants were much in arrears of rents and rates;

(3) the owners possessed houses with modern conveniences at New Orbiston, thirty of which were standing empty, and to which tenants from Hattonrigg Terrace could be removed if willing to pay the rents; and (4) the owners were prepared to close the dwellings at Hattonrigg Terrace until such time as they would be required for workmen in Hattonrigg Colliery, if re-opened, in which case the necessary conveniences would be provided. The Committee considered these representations, and decided that the introduction of inside sinks and water supply should not be insisted upon if the dwellings were vacated, but that, if they continued in occupation, compliance with the Notice must be insisted upon. The owners thereafter served notices to quit on the tenants, on whose behalf representations were made to the effect that if they removed to New Orbiston inconvenience would result on the re-opening of Hattonrigg Colliery, and the rents at New Orbiston were considerably higher than those obtaining at Hattonrigg Terrace. The Committee then agreed that the operation of the Statutory Notice should, without prejudice, remain in abeyance for a temporary period of three months. The case was still under consideration at the close of the year.

Muirpark Rows, Bellshill.—The trough closets at the 104 two-apartment dwellings comprising these rows were of an obsolete type, and proving a continual source of nuisance, and the matter was taken up with the owners. On the recommendation of the Department, a plan was ultimately submitted showing the provision of a water-closet for each dwelling in the coal-cellar apartment in the entrance lobby, immediately behind the back door, alternative coal-cellar accommodation to be provided outside. The proposals were approved of by the Committee, and the work has been completed.

Lorne Place, Uddingston.—The owners of this two-storey tenement, comprising 9 two-apartment and 3 three-apartment dwellings, also four shops, submitted a plan showing the proposed erection of seven new water-closets. These, with the two existing closets, will give one closet for each of the four ground-floor tenants, one closet for each two of the eight upper-floor tenants, and one closet for the shops. The Committee approved of the proposals, and the work is proceeding.

Fairview, Uddingston.—1 one-apartment, 1 two-apartment, and 1 three-apartment dwellings. The owner provided a water-closet for the three-apartment dwelling, and one water-closet for the other two dwellings.

50-66 (*new numbers* 114-130) *Stevenston Street, New Stevenston.*—16 one-apartment, 9 two-apartment, and 1 three-apartment dwellings, referred to on page 402 of last Annual Report. In accordance with the arrangement made with the owners, four of the one-apartment dwellings were converted into 2 two-apartment houses during the year. There now remain only 4 one-apartment dwellings to be dealt with thus.

Lauchope Place, Chapelhall.—18 one-apartment and 13 two-apartment dwellings, referred to on page 402 of last Annual Report. The work of providing an inside sink and water supply for each of the 12 one-apartment dwellings in the middle row and one new water-closet for each two houses there has been completed.

72-76 *Main Street, Chapelhall.*—Adequate water-closet accommodation has not yet been provided at these 2 one-apartment and 1 three-apartment dwellings, referred to on page 402 of last Annual Report.

Main Street, Chapelhall.—The owner has not yet provided water-closet accommodation at the 1 two-apartment and 1 five-apartment dwellings referred to on page 402 of last Annual Report.

177-179 *Campsie Terrace* (*now* 35-59 *Carfin Road*) *Newarthill.*—Proper domestic and sanitary conveniences have not yet been provided at these two single-storey rows, comprising 12 two-apartment dwellings, referred to on page 402 of last Annual Report.

2-20 *Campsie Terrace, Newarthill.*—3 one-apartment, 8 two-apartment, and 1 three-apartment dwellings, referred to on page 403 of last Annual Report. Proposals have not yet been received for the introduction of inside sinks, water supply, and water-closet accommodation.

171-175 *High Street and* 1 *Church Street, Newarthill.*—Following the service of the Statutory Notice, a sketch was submitted showing the proposed provision of two new water-closets at these 1 one-apartment and 4 two-apartment dwellings, referred to on page 403 of last Annual Report. The Committee accepted the proposals, without prejudice, and the work has been completed.

106-110 *High Street, Newarthill.*—2 two-apartment and 1 three-apartment dwellings, referred to on page 403 of last Annual Report. An inside sink and water supply have been introduced to each of the 2 two-apartment dwellings.

6-8 *Clydeford Road, Cambuslang.*—Referred to on page 404 of last Annual Report. None of the tenants removed during the year, and no further conversion of the one-apartment dwellings into houses of two apartments took place.

3 *Church Street, Cambuslang.*—A four-storey tenement, comprising 14 one-apartment and 4 two-apartment dwellings, referred to on page 404 of last Annual Report. The owners withdrew their appeal against the closure of the 3 one-apartment dwellings and 1 two-apartment dwelling on the basement floor, and repaired the remaining 2 two-apartment dwellings there. No arrangement has, however, been come to with regard to the provision of increased water-closet accommodation for the property.

4 *Colebrooke Street, Cambuslang.*—Adequate water-closet accommodation has not yet been provided at the three-storey tenement, comprising 6 one-apartment and 5 two-apartment dwellings, referred to on page 404 of last Annual Report.

Mavismill, Hallside, Cambuslang.—The owner of a three-apartment dwelling here has been asked to introduce an inside sink and proper gravitation water supply.

Clydesdale Rows, Wishaw.—2 one-apartment, 42 two-apartment, 2 three-apartment, and 3 four-apartment dwellings, referred to on page 404 of last Annual Report. Only a further four houses were vacated during the year, leaving thirty-two still occupied.

Mitchell Place, Morningside.—29 two-apartment dwellings, and *School Row, Chapel*, 6 two-apartment dwellings, referred to on page 404 of last Annual Report. Difficulties as to sewage disposal still preclude the provision of modern sanitary conveniences at these properties.

Comely Bank, &c., Newmains.—Referred to on page 405 of last Annual Report. The 2 one-apartment and 2 two-apartment dwellings at *Comely Bank* were converted into two houses, 1 of two-apartments and 1 of four-apartments, and an inside sink and water supply provided for each. An inside sink and water supply were provided for each of the 2 two-apartment dwellings at *Whitestripe*, the 1 one-apartment, 3 two-apartment, and 3 three-apartment dwellings at

Stable Court, and the 13 one-apartment and 1 two-apartment dwellings at *Stable Row*. The four-apartment dwelling at *Old Bank Buildings* also had an inside sink and water supply introduced, and the question of providing similar conveniences at the eleven dwellings at 2-13 *Store Row* is still in hand.

Stane Place, Shotts.—Referred to on page 405 of last Annual Report. During the year two Closing Orders were made in respect of 36 of the one-apartment back-to-back dwellings here, and the tenants are being offered alternative accommodation under the Committee's Improvement Scheme. The remaining 24 one-apartment back-to-back dwellings without proper conveniences will probably also be dealt with in a like manner.

190-196 *Hamilton Street, Torbothie.*—Water-closet accommodation has not yet been provided at the 4 two-apartment dwellings referred to on page 405 of last Annual Report.

Prentice's Land, Old Station, Overtown.—1 one-apartment, 7 two-apartment, and 1 three-apartment dwellings, referred to on page 405 of last Annual Report. The four new water-closets accepted by the Committee, without prejudice, have been erected. Inside sinks and water supply have also been introduced to the three upstairs dwellings which were without these conveniences.

Gladstone Place, Overtown.—The three proposed new water-closets have not yet been provided at these 1 one-apartment, 3 two-apartment, and 1 five-apartment dwellings referred to on page 405 of last Annual Report.

Victoria Place, Main Street, Overtown.—9 two-apartment and 3 three-apartment dwellings, referred to on page 407 of last Annual Report. Negotiations with the owner resulted in the submission of a plan showing six proposed new water-closets for the twelve occupancies, also a new water-closet for each of the two dwellings forming an adjoining double cottage. The Committee approved of the proposals, and the work has been completed.

Clydesdale Place, Overtown.—A plan showing the proposed erection of three new water-closets at these 1 two-apartment, 1 three-apartment, and 1 five-apartment dwellings, referred to on page 407 of last Annual Report, was approved of during the year, and the work is in progress.

Bentfoot, Overtown.—2 one-apartment and 12 two-apartment dwellings, referred to on page 407 of last Annual Report. The 2 one-apartment dwellings have been demolished, and the question of providing inside sinks and water supply to the two-apartment dwellings is still under consideration.

Hayfield Place, Overtown.—3 two-apartment and 1 five-apartment dwellings; and *Meadowview, Overtown*, 2 one-apartment and 2 two-apartment dwellings, referred to on page 407 of last Annual Report. Negotiations are still proceeding for the provision of proper domestic and sanitary conveniences at these properties.

Old Schoolhouse, Back Road, Overtown.—The owners of these 2 two-apartment dwellings were asked to provide inside sinks, water supply, and water-closet accommodation, and the matter is still under consideration.

Roseview, Overtown.—The owner of these 5 two-apartment, 3 three-apartment, and 2 four-apartment dwellings agreed to provide a water-closet for each tenant, and the work was nearing completion at the end of the year.

Helenslea, Overtown.—A water-closet has been provided for each of the 2 two-apartment and 2 three-apartment dwellings here.

Thorold Cottage, Overtown.—Each of these 2 three-apartment dwellings has been provided with a water-closet.

Smithy Row, Overtown.—6 two-apartment and 2 three-apartment dwellings without inside sinks and water supply and water-closet accommodation. Four new water-closets are in course of erection here, and each dwelling is to be provided with an inside sink and water supply.

Garrion View, Overtown.—The work of providing a new bath-room, fitted with water-closet, for each of the 1 one-apartment, 1 two-apartment, and 1 three-apartment dwellings here is in progress.

Ardgour, Gowkthrapple.—Negotiations for the provision of water-closet accommodation and the abolition of the existing privy and ashpit at these 3 two-apartment and 1 three-apartment dwellings, referred to on page 407 of last Annual Report, are still proceeding.

Ashfield Cottage, Netherton.—The 2 three-apartment dwellings here have each been provided with a bathroom, fitted with water-closet.

27-35 *Springhill Road, Shotts.*—2 one-apartment and 1 two-apartment dwellings without inside sinks and water supply and water-closet accommodation, referred to on page 407 of last Annual Report. The necessary conveniences have been provided.

Cornsilloch Rows, Dalserf.—Owing to the continued depressed state of local industry, the question of providing proper domestic and sanitary conveniences at these 60 two-apartment dwellings, referred to on page 408 of last Annual Report, is still in abeyance.

Ayr Road Rows, Dalserf.—40 two-apartment dwellings, referred to on page 408 of last Annual Report. One row of 24 dwellings is now totally demolished. A Closing Order embracing the remaining row was made towards the close of the year, and the tenants are being offered alternative accommodation under the Committee's Improvement Scheme.

Swinhill Terrace, Dalserf.—Continued industrial depression in the locality still delays the provision of proper sanitary conveniences at these 49 two-apartment, 2 three-apartment, and 1 four-apartment dwellings, referred to on page 408 of last Annual Report.

36-50 *Raploch Street and* 7 *and* 9 *Crossgates Street, Larkhall.*—The question of providing inside sinks, water supply, and adequate water-closet accommodation at these 13 one-apartment and 4 two-apartment dwellings, referred to on page 408 of last Annual Report, is still under consideration.

60-70 *Raploch Street, Larkhall.*—No arrangement has yet been come to for the provision of inside sinks, water supply, and adequate water-closet accommodation at these 6 one-apartment dwellings, referred to on page 408 of last Annual Report.

2-12 *and* 18-20 *High Glengowan, Larkhall.*—After negotiations, the new owner introduced an inside sink and water supply to each of the 3 one-apartment and 5 two-apartment dwellings here, referred to on page 409 of last Annual Report.

17 *Hill Street.*—The ownership of this two-apartment dwelling, referred to on page 409 of last Annual Report, changed hands during the year, and water-closet accommodation has not yet been provided in lieu of the existing pail privy.

2-10 *North Street, Larkhall.*—5 two-apartment dwellings, referred to on page 409 of last Annual Report. As the result of service of the Statutory Notice, and subsequent correspondence, an arrangement was come to with the owner's agents for the introduction of an inside sink and water supply to each dwelling. The work had not been commenced at the close of the year.

2-8 *Station Road and* 49 *Drygate Street, Larkhall.*—The owner of the 4 one-apartment and 1 two-apartment dwellings here has been asked to provide increased water-closet accommodation.

149 *Raploch Street, Larkhall.*—The owner has been asked to introduce an inside sink and water supply to this two-apartment dwelling.

Hill Terrace, Netherburn.—The question of providing proper domestic and sanitary conveniences at these two single-storey brick rows, comprising 23 two-apartment dwellings, referred to on page 409 of last Annual Report, is still in abeyance.

Udston Rows, Hamilton.—Referred to on page 409 of last Annual Report. The position here is unchanged.

Eddlewood Rows, Hamilton.—24 one-apartment, 153 two-apartment, 12 three-apartment, and 2 four-apartment dwellings, referred to on page 409 of last Annual Report. Little progress was made during the year in the provision of water-closet accommodation for the dwellings still to be provided for at the back rows.

Cadzow Rows, Hamilton.—Rather than convert the 72 one-apartment back-to-back dwellings at Aitken, Landale, Bishop, and Simpson Streets into through houses and provide proper domestic and sanitary conveniences, the owners decided to close them voluntarily so soon as the tenants find other accommodation. At the end of the year the sixteen dwellings, numbered 10-24 Simpson Street and 9-23 Bishop Street, had been vacated and demolished.

Quarter Village.—Referred to on page 409 of last Annual Report. Lack of sewerage facilities still delays the provision of water-closet accommodation.

Daisybank, Caldercruix.—6 two-apartment dwellings, referred to on page 410 of last Annual Report. The proposed three new water-closets accepted by the Committee have been erected, and the old privies and ashpit demolished.

Gartgill Square.—Referred to on page 410 of last Annual Report. The question of providing proper sanitary conveniences is still under consideration.

157-163 *Main Street, Baillieston.*—The owner of the 11 two-apartment and 1 four-apartment dwellings here has been asked to provide increased water-closet-accommodation.

Boghall Square, Broomhouse.—Referred to on page 410 of last Annual Report. A further 3 one-apartment dwellings were closed during the year.

West Benhar Rows, Shotts.—8 one-apartment and 147 two-apartment dwellings, referred to on page 410 of last Annual Report. As the result of service of the notices to quit authorised by the Sheriff, the few remaining tenants vacated their dwellings, and the rows have been totally demolished.

Eastfield Row, Harthill.—8 two-apartment dwellings; and *Peden Place, West Benhar*, 15 two-apartment dwellings, referred to on page 411 of last Annual Report. The position here is unchanged.

Russell's Land, Cleland.—The question of providing additional water-closet accommodation at these 8 one-apartment, 2 two-apartment, and 2 three-apartment dwellings, referred to on page 411 of last Annual Report, is still under consideration.

29-31 *Omoa Road, Cleland.*—These 5 one-apartment dwellings, referred to on page 412 of last Annual Report, are still without proper water supply and water-closet accommodation.

Cityside, Greenhill, Cleland.—5 one-apartment and 2 two-apartment dwellings, referred to on page 412 of last Annual Report. Three houses were still occupied at the close of the year.

56-58 *Main Street, Shotts.*—An inside sink and water supply have been introduced to each of the 2 two-apartment dwellings here.

31-35 *Main Street, Cleland.*—These 2 one-apartment and 2 two-apartment dwellings have each been provided with an inside sink and water supply.

146-150 *Station Road, Shotts.*—The 3 two-apartment dwellings here have each been provided with an inside sink and water supply.

32-34 *Union Street, Stonehouse.*—Following service of the Statutory Notice, two new water-closets were provided at these 1 one-apartment and 2 two-apartment dwellings, referred to on page 413 of last Annual Report.

Stonehouse.—An additional water-closet has been provided at 11-21 *Kirk Street*, 7 two-apartment dwellings, and at 12 *Lockhart Place*, 3 two-apartment dwellings, and a bathroom fitted with water-closet has been provided at 23 *Hill Road*, 1 two-apartment dwelling.

Duplication of Occupancies.—This practice was referred to in last Annual Report, and in the course of routine inspections a further case was reported, when it was found that a three-apartment house at 13 *Greenrigg Street, Uddingston*, had been converted into a single-apartment and a two-apartment dwellings. The matter was reported to the Committee, who ordered the factor to put the premises into their original condition, but this had not been done at the close of the year.

Water Supply, Closet Accommodation, &c.—In connection with Department of Health's circular requesting information as to the number of closets on the conservancy system converted to the water-carriage system, as well as the number of privies, &c., remaining at the end of the year, also the number of houses without water supply, &c., the following table was prepared. It should, however, be noted that many of the dwellings shown in the table as still having inadequate sanitary conveniences are on the list for closure under the Committee's Scheme for the Improvement of Insanitary Areas, and will be cleared out in due course.

TABLE SHOWING NUMBER OF OCCUPIED HOUSES IN POPULOUS PLACES WITHIN THE DISTRICT, AND THE NUMBER OF COMMON WATER-CLOSETS, DRY CLOSETS, PRIVY-MIDDENS, AND ASHPITS, SERVING 2, 3, 4, AND 5 OR MORE TENANTS, RESPECTIVELY, ALSO THE NUMBER OF HOUSES WITHOUT WATER SUPPLY AND SINK INSIDE THE HOUSE.

Locality.	Number of Occupied Houses.	Water-Closets.				Dry Closets.				Privy-middens.				Ashpits.				Houses without water and inside sink.
		2	3	4	5	2	3	4	5	2	3	4	5	2	3	4	5	
Aitkenhead, &c.,	1,284	169	9	28	2	—	—	—	—	1	12	27	—	—	—	—	—	30
Baillieston,	1,241	98	41	53	13	—	—	—	—	1	2	6	8	—	—	—	—	99
Bellshill, &c.,	3,675	295	174	115	6	—	—	—	—	—	—	—	—	—	—	—	—	117
Blantyre,	3,289	254	219	195	26	—	—	—	—	2	—	—	—	—	—	—	—	84
Bothwell,	896	68	31	3	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Busby,	175	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Calderbank,	466	2	—	1	2	1	—	—	—	15	2	3	36	3	—	—	1	212
Cambuslang,	5,712	343	461	214	8	—	—	—	—	—	—	—	—	—	—	—	—	1
Carmyle, &c.,	962	44	27	21	—	3	—	—	—	—	—	—	5	—	—	1	—	48
Cleland, &c ,	682	40	22	22	5	—	—	—	—	19	20	10	2	10	7	2	—	41
Dalziel, &c.,	324	32	1	1	—	2	1	1	5	—	—	—	—	—	—	—	—	36
East Kilbride,	643	61	34	15	—	—	—	—	—	—	—	—	—	—	—	—	—	68
Gartlea,	79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glengowan, &c.,	438	14	3	—	—	18	10	22	12	12	2	5	19	—	—	2	1	21
Hamilton Road,	104	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Holytown, &c.,	2,414	262	79	73	8	—	—	—	—	—	11	3	6	2	2	1	7	155
Larkhall,	2,783	405	76	65	—	1	—	—	—	6	2	—	—	3	1	1	1	91
Newarthill,	562	40	8	5	1	—	—	—	—	20	17	17	14	11	12	16	19	136
Newmains,	901	119	16	4	—	—	—	—	—	—	—	—	—	—	—	—	—	85
Salsburgh,	180	10	—	—	—	—	—	—	—	11	38	6	—	16	7	3	—	54
Shotts, &c.,	2,082	182	78	26	17	—	—	—	—	14	48	2	—	8	6	14	2	240
Stonehouse,	826	139	23	6	—	—	—	—	—	6	—	—	—	—	—	—	—	60
Strathaven,	1,212	100	83	29	1	—	—	—	—	—	—	—	—	—	—	—	—	79
Uddingston,	1,909	168	58	29	21	—	—	—	—	—	—	—	—	—	—	—	—	22
Waterloo, &c.,	783	41	4	3	—	—	—	—	—	34	26	9	12	10	4	10	26	244
Totals,	33,622	2,926	1,447	908	110	25	11	23	17	141	180	88	102	63	39	50	57	1,925

Seasonal Workers.—One intimation was received from an employer of potato diggers as to the number of workers proposed to be employed at Low Mains Farm, East Kilbride. As, however, written application by the farmer for the approval of the Local Authority with regard to accommodation had not been made timeously, in terms of the By-laws, the employer was informed that no workers would be allowed to be accommodated at the farm. Other lodging arrangements for the workers were made by the employer, and no further action was found necessary by the Department.

Housing (Rural Workers) Act, 1926.—During the year 11 applications were made for assistance in aid of the reconstruction and improvement of 25 dwellings for the accommodation of agricultural workers and other persons whose economic condition is substantially the same as such workers, and a grant was sanctioned by the Committee in each case.

In connection with a circular letter received from the Department of Health, special inspections of all farmworkers' dwellings throughout the District were commenced, and the terms of grant under the Act brought to the notice of the various owners. The survey is still being carried out, but already a number of proposals for reconstruction and improvements has been received and these are being dealt with.

Rent and Mortgage Interest (Restrictions) Acts, 1920 to 1925.—The number of applications by tenants for certificates received during the year was 38. In every instance a careful inspection of the premises was made, and a report submitted for the consideration of the Committee. The certificates granted by the Committee numbered 29, including 4 applications continued from the preceding year, and 13 were refused.

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

The following table shows the number of certificates granted since the commencement of the Act, and the cases in which repairs were executed :—

Parish.	Number of Certificates Granted.	Houses in which Repairs have been Executed.	Number still being dealt with.
Avondale, ...	12	12	—
East Kilbride, ...	8	8	—
Glasford, ...	5	4	1
Stonehouse, ...	17	16	1
Blantyre, ...	233	218	15
Bothwell, ...	427	386	41
Cambuslang, ...	170	154	16
Cambusnethan, ...	47	45	2
Daiserf, ...	287	281	6
Dalziel, ...	2	1	1
Hamilton, ...	39	36	3
New Monkland, ...	69	64	5
Old Monkland, ...	549	528	21
Shotts, ...	305	283	22
Total, ...	2,170	2,036	134

Applications by Landlords.—No applications were received from owners of houses, in respect of which certificates had previously been granted to the tenants, requesting reports of the Local Authority to the effect that the houses were now in a reasonable state of repair.

Ruinous Buildings.

The following ruinous or dangerous buildings were dealt with during the period under review, 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 :—

Stonehouse.—After the service of a notice on the owner of dangerous buildings, comprising a disused ashpit and outside stair at his property situated at 49 King Street, Stonehouse, the ashpit was demolished and the stair repaired.

East Kilbride.—An outside stair giving access to dwellings at 22 Parkhall Street, East Kilbride, was found to be in a dangerous condition, and a notice was served on the owner, who caused the necessary repair work to be executed.

Blantyre.—The property at 12-20 Dalziel Place, Blantyre, comprising seven empty dwellings, was reported as being in a ruinous and dangerous condition, and a notice was served on the owner. After considerable delay, the building was demolished.

A two-storey tenement building at 2-12 School Lane, High Blantyre, comprising 3 one-apartment and 5 two-apartment dwellings, which had been vacated after a Closing Order, and a two-storey brick-built stable and lofts situated at the rear of the property, were reported as being in a dangerous condition. The owner's attention was directed to the matter, and the whole buildings were demolished and the site cleared.

Bellshill.—A wash-house at the rear of 52 Hope Street, Bellshill, was repaired after the service of a notice on the owner that the building was in a dangerous condition.

The gable and chimney-head of a derelict single-storey building at the corner of Main Street and Gas Works Road was found to be dangerous, and on the owner's attention being drawn to the matter the property was demolished.

Cambuslang.—At 47-48 Graham Square, Halfway, Cambuslang, a stair giving access to dwellings there was found to be in a dangerous condition, and the necessary repair work was duly carried out by the owners. In a similar case at 157 Westburn Road, the stairs were also put right after service of a notice on the owners.

At 10 Glasgow Road, a dangerous chimney-head was repaired by the owner immediately after service of a notice.

Larkhall.—A stair landing giving access to dwellings at 25 London Street, Larkhall, was reported as being in a dangerous condition, and, after service of a notice on the owners, repairs were duly executed.

The one-storey building, formerly comprising three one-apartment houses situated at 20A Drygate Street, Larkhall, was found in a ruinous and dangerous state. Notices were served on the owner and Agents for the Bondholder, but, as nothing was done to take down or secure the building, Court proceedings have been instituted.

The dangerous condition of a property destroyed by fire at 43 Raploch Street was reported, and a notice was served on the owners to have the building taken down or made secure. Nothing was done,

however, within the statutory time limit, and the owners are being pressed to have the necessary work carried out.

Court proceedings have been instituted against the owner of the building, formerly comprising 10 one-apartment dwellings, at 10 to 16 and 26-28 Millheugh for failing to take down or secure the building which is in a dangerous condition.

A notice was served on the owner of a dangerous building, comprising ten empty dwellings, situated at 31 to 49 Raploch Road, and, after much unnecessary delay, the building was demolished.

Caldercruix.—The owner of Ham Row, a building comprising six empty houses in a ruinous state and dangerous to passengers, was notified to take down or secure said building, and, after some delay, the building was made secure.

Drainage.

There are now 28 Special Drainage Districts in the Middle Ward Area, two new districts having been formed during the year, namely, Harthill, on 19th June, and Bothwellpark, on 28th June. The boundaries of Cambuslang Special Drainage District were extended on 28th June, to include on the west an area at Burnside.

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

Special Drainage Districts.—

	Lineal Yards.			
	9″	12″	15″	18″
Bothwellpark, ...	1,353	367	409	123
Overtown, ...	289	—	—	—
East Kilbride, ...	373	—	—	—
Totals, ...	2,015	367	409	123

Housing Schemes.—

Cambuslang, ...	326	—	—	—
Wemysshill No. 2, ...	472	191	—	36
Glenmavis, ...	313	339	121	—
Totals, ...	1,111	530	121	36

The number of connections made to sewers during the year was 137.

Sewage Purification Works.—At Bellshill Hospital a new sewage tank and relative works has been constructed, and at Glenboig a sewage tank to deal with the sewage from Ramoan Housing Site and the vicinity was provided.

Ashgillhead.—A further complaint was received from the owner of Torland, Dalserf, as to the foul condition of the Stewart Gill Burn, referred to on page 418 of last Annual Report, and the matter was fully discussed by the Committee, who agreed to recommend that a Special Drainage District be formed to include Ashgillhead, the new Housing Schemes, and the houses at Whinknowe, provided that State assistance through the Unemployed Grants Committee was obtained. The matter is still under consideration.

Cleland Public Park.—Complaint was made by Shotts Parish Council as to the condition of a ditch running through a portion of Cleland Public Park, which, it was alleged, carried sewage from Cleland Housing Schemes and also houses at Parkside. Reports were submitted to the Committee, stating that no sewage from any property within Cleland and Omoa Special Drainage District was discharged into the ditch in question, and that when an inspection was made no evidence of nuisance conditions was found. The ditch, however, was subsequently cleaned out at the expense of the Local Authority in accordance with a general instruction previously issued to the Department. The Committee ultimately agreed that it would be necessary to review the whole position of matters in relation to the question of drainage generally for the district, including the condition of the ditch in question.

Greengairs Drainage.—In connection with the representations made to the Department of Health regarding alleged insanitary conditions at Greengairs, referred to on page 37 of this Report, the Committee have under consideration the question of the provision of drainage facilities for the area in question.

New Stevenston.—A communication was received from the Department of Health regarding an alleged nuisance from the condition of the open ditch between Stevenston House and the entrance of the sewer near Holytown Public Crossing. A report was submitted to the Committee to the effect that serious nuisance conditions existed, and, as

the ditch had been a source of complaint from time to time, the owners had been asked either to have the drainage connected to the main sewer in Carfin Street or have the ditch piped, and that meantime the ditch would be cleaned out. The owner of Stevenston House has agreed to connect the property drains to the main sewer.

Torbush, Morningside.—Arising out of complaints as to nuisance conditions emanating from a ditch receiving the drainage from properties at Torbush, the owners, at the instigation of the Department, provided a septic tank, thereby removing the nuisance.

Ashley Grange, Bellshill.—The recurrence of chokages in the joint-drainage system of two properties was reported. Investigation showed that the joint drain had subsided owing to mineral workings, and application was made for sanction to connect to the sewerage system of the adjoining Fallside Housing Scheme. Sanction was granted, and separate connections were made.

Foul Ditches.—A number of ditches throughout the District into which sewage is discharged was cleaned out during the year, with satisfactory results.

Water Supply.

The water supply from the various reservoirs belonging to the Middle Ward District Committee 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.

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

	Lineal Yards.			
	3″	4″	5″	6″
Wemysshill Housing, ...	390	—	—	—
Fishescoats Housing, ...	120	960	—	—
Salsburgh Housing, ...	120	—	—	—
Overton Road Housing.... ...	420	—	—	—
Scott's Extension, Garrion, ...	—	30	—	—
Dalton Road Widening, ...	—	—	140	—
Blantyre Road Widening. ...	—	780	200	700
Cambuslang Road Widening, ...	450	400	—	—
Totals, ...	1,500	2.170	340	700

Water Samples.—Owing to complaints made regarding the quality of water supplies from private sources, samples were obtained from the following places and submitted for chemical analyses:—Townfoot of Priestgill Farm, Strathaven (5); Rylandside Cottage, Strathaven; Little Kype, Strathaven; Low Kittymuir Farm, Stonehouse (2); Fairholm House, Hamilton (3); Boghead Farm, Hamilton; Mafflat Farm, Quarter; Windmill Cottages, Westburn, Cambuslang; Mavismill, Cambuslang; North Myvot Farm, Condorrat (2); and Wester Myvot Farm, Condorrat.

Townfoot of Priestgill Farm, Strathaven.—Five samples of water were taken from different sources at this farm, and all were found unsatisfactory with the exception of one taken from the overflow of a well which supplies the house adjoining the farm. As there appeared to be a sufficient supply of water here for the farm, it was decided to construct a collecting tank and provide a pump and storage tank at the boiler-house. The work was in hand at the close of the year.

Rylandside Cottage, Strathaven.—A sample of water taken from the supply of this dwelling was found on analysis to be satisfactory.

Little Kype, Strathaven.—From the pump in front of this dwelling a sample of water was obtained for analysis, and found to be unsatisfactory. The question of carrying out certain improvements on the well is under consideration.

Low Kittymuir Farm, Stonehouse.—A sample of water taken from a pump in the boiler-house at this farm was found on analysis to be of insufficient purity for domestic purposes. Another sample was taken from a spring some distance below the steading, and proved on analysis to be satisfactory. Arrangements are in hand for the erection of a storage tank at the farm and a pump at the spring.

Fairholm House, Hamilton.—Three samples of water were taken from different sources within the grounds of this mansion, and the analyses showed the water to be quite satisfactory.

Boghead Farm, Hamilton.—The analysis of a sample of water taken from the pump in the boiler-house at this farm proved the water to be of sufficient purity for domestic use.

Mafflat Farm, Quarter.—The analysis of a sample of water taken from a tank in a field at this farm gave no indication of organic pollution, although the sample was very unsightly, due to finely divided clayey matter in suspension.

Windmill Cottages, Westburn, Cambuslang.—A sample of water taken from a 9-inch pipe in an adjacent field was found on analysis to be unsuitable for domestic purposes, and the matter, along with the question of general repairs of the property, has been taken up with the owner under the Housing (Rural Workers) Act.

Mavismill, Cambuslang.—The analysis of a sample of water used by the ocupants of this dwelling, and obtained from an alleged spring on the bank of Calder Water, showed that the water was unsuitable for domestic purposes. The matter has been brought to the notice of the owner's Agents.

Wester Myvot Farm, Condorrat.—At the request of the owner-occupier of this farm, a sample of water was taken from a well in the wood west of the steading, and the analysis indicated that the water was unsatisfactory. Another water supply is available at the farm.

North Myvot Farm, Condorrat.—Two samples of water were taken for analyses from shallow wells at this farm, and both were found to be unsuitable for domestic or dairy purposes. Negotiations are proceeding with the owners for the introduction of a gravitation supply.

Scavenging.

There are still 25 Special Scavenging Districts within the Middle Ward Area, no new districts being formed during the year. The boundaries of the following Special Scavenging Districts were extended, viz. :—Cambuslang and Larkhall, both on 31st May.

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

Aitkenhead, Tannochside, and Bothwellpark.—The work of collection and disposal of refuse within this Special District was carried out by a contractor in a satisfactory manner, the refuse being deposited in the coup at Fallside Quarry. The service was increased during the year from twice to thrice weekly. The number of privies abolished was 26.

Baillieston.—The daily collection and removal of refuse within this Special District continues to be executed by the staff employed by the Local Authority in a satisfactory manner. During the summer months the refuse is deposited in Braehead Quarry and in winter it is tipped in an old sandpit at Rhinsdale. The work of emptying and removing the contents of ashpits at West Maryston during the winter months was satisfactorily undertaken by a local contractor. Four privy-middens were abolished in the course of the year.

Common Stairs, &c.—Ten notices in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were served on property owners requiring them to whitewash or, at their option, to paint the walls and roofs of common passages and staircases at their respective properties, and in each instance the necessary work was carried out.

Bellshill and Mossend.—The refuse within this Special District is collected daily and deposited on waste ground at Boggsbrae by a staff under the control of the local Sub-Committee of Management, who also employ a superintendent to direct the work.

Common Stairs, &c.—Notices were served on four owners of property requiring the whitewashing or painting of common passages and staircases, and in each case the work was executed.

Blantyre.—The work of scavenging in this Special District was carried out by a contractor under the control of the local Sub-Committee of Management and supervised by their superintendent. The refuse is collected and removed daily to the public park, where it is used for levelling purposes.

A complaint was received from the occupier of an adjoining dwelling as to insanitary conditions arising from the coup. An inspection of the *locus* was made, and it was found that there was no justification for any complaint being then made as to nuisance conditions at the coup.

Common Stairs, &c.—Twenty-three notices were served on property owners requiring the whitewashing of common passages and staircases, and in every case the work was duly carried out.

Bothwell.—The daily collection and removal of refuse within this Special District continues to be carried out in a satisfactory manner

by a staff in the direct employment of the local Sub-Committee of Management. 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. All refuse matter was deposited in Fallside coup.

Common Stairs, &c.—One notice to whitewash or paint the walls and ceiling of a common passage and staircase was served on an owner, who duly complied with the terms thereof.

Busby.—The refuse within this Special District was collected and removed to Busby Glen coup twice weekly by a contractor. Several complaints of a minor character were received during the year, but the service generally was carried out in a satisfactory manner.

Calderbank.—The twice-weekly collection and removal of refuse within this Special District was carried out by a contractor in a satisfactory manner, the refuse being used on farm lands.

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

Cambuslang.—The daily collection and removal of refuse within this Special District was carried out satisfactorily by a contractor, all refuse being disposed of at Cambuslang destructor.

Extension of Boundaries. — The boundaries of the Special Scavenging District were enlarged during the year to include on the west an area at Burnside.

Common Stairs, &c.—Thirty-five notices to whitewash or paint common passages and staircases were served on owners of property, and in every instance the work was duly carried out. Seven notices in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, were served on occupiers who had failed to sweep and wash regularly the common passage and stairs giving access to their premises, determining the rotation to be observed by them in future in such sweeping and washing, and intimating that, in the event of their failure to comply with the requirements thereof, proceedings would be taken against them. Sweeping and washing have since been regularly carried out.

Carmyle and Mount Vernon.—The daily collection and removal of refuse within this Special District was carried out until 15th June by a staff in the direct employ of the Local Authority. Since that date the work has been done by a contractor, the refuse being deposited in Kenmuir sandpit. Nine privy-middens were abolished during the year.

Common Stairs, &c.—In three instances notices were served on owners requiring them to whitewash the common passages and staircases, and the necessary work was done in each instance.

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 four privy-middens were abolished.

Dalzell and Netherton.—The scavenging in this Special District continues to be done satisfactorily by the staff in the direct employment of the Local Authority, the refuse being collected and removed daily to coups. Part of the time of the staff is devoted to the Hamilton Road Special Scavenging District.

East Kilbride.—The collection and removal of refuse three times weekly in this Special District was undertaken successfully by a contractor, all refuse being deposited in a coup.

Gartlea.—The weekly collection and removal of refuse in this Special District was carried out in a satisfactory manner by a contractor, all refuse matter being deposited in a coup.

Glengowan and Caldercruix.—The refuse from ashbins in this Special District is collected by a contractor twice weekly and disposed of on farm lands. The ashpits are emptied at least once a month.

Hamilton Road.—In this Special District the daily refuse collection was carried out in an efficient manner by the staff employed in the Dalzell and Netherton Special Scavenging District.

Holytown, New Stevenston, and Carfin.—The daily collection and removal of refuse in this Special District continues to be carried out by a staff in the direct employment of the Local Authority in a satisfactory manner, the refuse being disposed of at New Stevenston destructor. The ashpits at Legbrannock are emptied weekly and the refuse deposited on farm lands by a contractor.

Larkhall.—The refuse within this Special District was collected daily by a staff in the direct employment of the Local Authority and, until the beginning of December, was disposed of at Larkhall destructor. Since that date the destructor has been closed down and all refuse matter has been deposited in coups.

Extension of Boundaries. — The boundaries of the Special Scavenging District were enlarged during the year to include on the south the County Housing Site at Strutherhill so far as situated outwith the existing Special Scavenging District.

Common Stairs, &c.—Four notices were served on property owners requiring the whitewashing of common passages and staircases, and in all cases the work was executed.

Newarthill.—The collection and removal of refuse to farm lands was carried out satisfactorily 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 in this Special District was carried out satisfactorily by a contractor, the material being deposited in coups.

Salsburgh.—Within this Special District the refuse was collected twice weekly and removed to farm lands by a contractor. Two privy-middens were abolished during the year.

Common Stairs, &c.—For failing to keep clean the common passage giving access to their premises two notices in terms of Section 115 of the Burgh Police Act, 1892, were served on occupiers, who have since carried out sweeping and washing regularly.

Shotts and Dykehead.—The daily work of collection and removal of refuse within this Special District continues to be done in an efficient manner by the staff in the direct employment of the Local Authority, most of the refuse being deposited in coups and the remainder used on farm lands. The number of privy-middens abolished during the year was 58.

Common Stairs, &c.—Two notices were served on owners requiring the whitewashing of common passages and staircases, and in each case the necessary work was performed.

Stonehouse.—In this Special District the work of refuse collection and removal was satisfactorily carried out twice weekly by a contractor, all the material being deposited in a coup.

Strathaven.—A large number of complaints was received during the year as to the dilatory manner in which the contractor for this Special District was carrying out the daily service. Repeated warnings were given, but matters did not improve, and towards the close of the year the Committee decided to withdraw the contract and employ the next lowest offer. Since the change as from 16th December, the new contractor has given satisfaction.

Uddingston.—The refuse within this Special District was collected daily by a contractor and deposited in the coup at Fallside. The work was carried out with satisfaction.

Common Stairs, &c.—Three notices were served on owners in terms of Section 117 of the Burgh Police Act, with satisfactory results. For failing to keep clean the common passages and stairs giving access to their premises, notices were served on 33 occupiers in terms of Section 115 of the aforementioned Act, and sweeping and washing have since been regularly performed in all cases.

Waterloo and Overtown.—The scavenging of this Special District was undertaken by a contractor, the refuse from ashbins and earth-closets being collected twice weekly and the contents of ashpits removed at least once a month. The refuse collected was deposited in coups and on farm lands. During the year 21 privies were abolished.

Housing Schemes.—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 Inspectors, viz. :—Ashgill-head, Broomhouse, Carnbroe, Chapelhall, Drumpark, Eastfield, Ferniegair, Glenboig, Glenmavis, Greengairs, Kingshill, Meikle Earnock, and Westcraigs.

Quarter Scavenging. — In connection with a question in Committee by the local Representative as to the scavenging arrangements at the mining village of Quarter, a report was submitted to the Committee showing that there are about 153 houses, with an estimated valuation of £2,000. Most of the houses are owned by a colliery company, and the sanitary conveniences consist of pail privies and

separate small ashpits or ashbins. The ashpit refuse is at present removed by the colliery company, and the contents of the pail privies are buried by the householders in their gardens. If a Special Scavenging District were formed and only the refuse from the ashpits, &c., collected twice per week, the annual expense involved would be about £60, necessitating the imposition of a rate of 7·2d per £ of rental. If, however, the contents of the pail privies were also to be removed, then the expense and rate would be exactly doubled.

After a review of the whole position, the Committee were of opinion that if and when a requisition for the formation of a Special Scavenging District to include Quarter were made, it should receive favourable consideration at the hands of the District Committee. So far, a requisition has not been received in connection with the matter.

Provision of Dustbins.—During the year notices in terms of Section 23 of the Burgh Police Act, 1903, were served on numerous owners of property within the Special Scavenging Districts requiring them to provide proper covered receptacles for refuse. In most cases suitable ashbins were provided after service of the notice, and the remainder were reported to the Committee with a view to proceedings in terms of Section 24 of the Act being instituted. Legal proceedings were found necessary in one instance, viz., 13-15 Bridge Street, Cambuslang, when the respondent was found liable in 35s. expenses.

Water-Closets.—The following statement shows the number of privies which existed in Special Scavenging Districts prior to the formation of same, also the number since abolished and water-closet accommodation provided in lieu, viz. :—

District.	Privies.	Abolished.	District.	Privies.	Abolished.
Aitkenhead, &c.,	87	47	Hamilton Road,	—	—
Baillieston, -	145	110	Holytown, &c., -	185	157
Bellshill, &c., -	382	381	Larkhall, - -	868	860
Blantyre, - -	251	249	Newarthill, -	112	35
Bothwell, - -	100	99	Newmains, -	246	246
Busby, - -	—	—	Salsburgh, -	56	26
Calderbank, -	75	1	Shotts, &c., -	717	701
Cambuslang, -	212	212	Stonehouse, -	180	174
Carmyle, &c., -	50	45	Strathaven, -	460	460
Cleland, &c., -	260	130	Uddingston, -	102	102
Dalzell, &c., -	30	22	Waterloo, &c., -	169	51
East Kilbride, -	34	34			
Gartlea, - -	4	3	Total, -	4,817	4,148
Glengowan, &c.,	92	3			

Private Streets.

STRATHAVEN.—The unsatisfactory condition of *Cochrane Street, Strathaven*, was reported and, after an interview with the Superiors' Agents, the street was put into proper order, and there is now no cause for complaint.

BLANTYRE.—Complaint being made as to the unsatisfactory condition of *School Lane, High Blantyre*, a note of the repairs necessary, together with an allocation of cost, was supplied by the District Engineer to each feuar. The necessary work was duly carried out by administration, as arranged between the Road Surveyor and feuars.

Calder Street was also referred to as being in an unsatisfactory state, and the matter was reported to the Committee for action under Section 39 of the Public Health Act. It was agreed that the District Engineer should, in the first instance, prepare an approximate estimate of the cost of the works requiring to be carried out in order to satisfy the requirements of the Act, together with a list of the owners involved and an allocation of the cost.

BAILLIESTON.—No further progress has been made towards the repair and re-surfacing of *Maxwell Street* and *Muirside Road*, referred to on page 428 of last Annual Report, and the matter is still under consideration.

LARKHALL.—An offer, amounting to £976 12s. 6d., was accepted by the Committee for the execution of the works to be carried out on *Academy* and *Victoria Streets*, referred to on page 428 of last Annual Report, and at the close of the year the work was nearing completion.

CAMBUSLANG.—The roadway leading from *Lightburn Road* to *Castle Chimmins Avenue*, referred to on page 428 of last Annual Report, has now been made up to Public Health Act requirements, and is satisfactory.

Bothwell, Pretoria, Silverbanks, and *Sommerville Streets* were found to be in an unsatisfactory state, and the matter was reported to the Committee for procedure under Section 39 of the Public Health Act. The Committee instructed the preparation of estimates of cost, &c., and the matter is still under consideration.

The unsatisfactory condition of certain private roads in *Newton Village* was reported, and a meeting with the owners' representatives was subsequently held to discuss the question of repairs. Proposals were submitted and, after consideration of these, the Committee agreed that the statutory procedure for the repair of the roads in question should not be proceeded with, on the understanding that the owners undertook to carry out the repairs on the roadways as detailed in the proposals. The work of repair is now proceeding.

Uddingston.—The lane adjoining *Old Mill Road*, referred to on page 396 of the Annual Report of 1927 has been re-surfaced at the expense of the feuars. A gate has also been provided so as to prevent the use of the lane as a thoroughfare for vehicular traffic.

A petition from residenters in *Tannochside, &c.*, was received as to the miry condition of the private streets and ground adjoining and giving access to certain properties in this area. The complaint was duly investigated and an inspection made by a Sub-Committee, but it was found that the conditions at the time of inspection did not warrant action. It was agreed to make a further inspection when the weather freshens.

Croftbank Street was the subject of a complaint that its condition was such as to constitute a nuisance. Inspection showed that, while there were a few pot-holes, the condition of the street was not such as to warrant action under the Public Health Act. Arrangements, however, have been made to obtain a supply of discarded road metal for repair work when the weather is suitable.

Longriggend.—The private street known as *Mossvale* was found to be in an unsatisfactory condition and, after a meeting on the ground with the feuars, the work of repair was placed in the hands of a contractor, and carried out by him in a satisfactory manner.

Shotts.—The unsatisfactory state of *Clive Street*, *King Street*, and *Easter Road* was reported to the Committee, who instructed to be forwarded to the feuars in these streets a note of the amount of the estimates for (*a*) repairing the streets under the provisions of the Public Health Act; and (*b*) making up the streets to the highway standard, in order that they might have an opportunity of indicating whether they were agreeable to the proposal for the making up of the

streets to the highway standard. Only one feuar, however, was agreeable to the proposal for the making up of the streets, while several replied that they were unable to meet the cost of the work. The matter is still under negotiation.

Nuisances.

During the year 84,978 inspections were made for the detection of nuisances, and the number of nuisances recorded was 2,031, the chief being choked drains, sinks, and water-closets.

Intimations were issued to authors of nuisances in 1,364 cases, and in many instances the cause of complaint was immediately removed. Where the intimations had no attention, Statutory Notices were served, and these numbered 204.

Prosecution.—Legal proceedings were taken against the owner of Viewfield Cottage, Clydesdale Street, New Stevenston, for failing to remove nuisances, consisting of an escape of coal-gas inside a dwelling and a water-closet cistern without a supply of water for flushing purposes. The nuisances were subsequently removed, and the Sheriff found the respondent liable in 31s. 6d. expenses.

Unfenced Mine Shafts.—Eighteen discontinued or abandoned mine shafts were found to be in a dangerous condition, and dealt with by the Department. These were situated as follows:—Newhouse; Fairybank Nos. 1 and 2, Newhouse; Budshaw, Newhouse; Mossband, Newhouse; Damhead, Chapelhall; Bowesbrae, Chapelhall; Loanhead, New Stevenston; Douglas Park, Bellshill; Milnwood, Bellshill; Greenside No. 2, Holytown; Chapel Square Nos. 3 and 4, Morningside; Eastfield, Longriggend; Stanrigg No. 2, Whiterigg; Dunsyston (Upper Drumgray), Clarkston; Roughcraig, Airdrie; and Millhill, Rawyards.

Corporation Coups.—The refuse coups at Maryburgh and Stand belonging to Glasgow Corporation, referred to on page 430 of last Annual Report, were kept in a satisfactory condition during the year.

Brick-crushing Machine, Blantyre.—This petrol-driven machine referred to on page 431 of last Annual Report, has now been enclosed and the cause of complaint is removed.

Burning Bings.—A complaint was received as to nuisance conditions caused by the emission of smoke and fumes from a mineral refuse bing adjoining Broomhouse Housing Scheme. The matter was taken up with the colliery owners who, as an experiment, built a pulverising plant and altered the boiler furnaces with the object of consuming the waste coal, but the experiment was not a success. Alternative tipping arrangements were also considered, but no decision was arrived at. Meantime, part of the waste coal is consumed in the furnaces, and it is expected that the working of the seam of coal producing the inflammable waste will be abandoned in the near future.

Complaints were also received as to smoke and fumes from an ash-bing at Viewpark Colliery, Uddingston, entering the dwellings in the Housing Scheme nearby. Inspections were made, but nuisance conditions could not then be found to exist. Nevertheless, the owners' attention was directed to the necessity of continuing the watering of the ashes before tipping, which system had been agreed upon on a former occasion.

Smoke Nuisance.—A factory chimney at Bothwell was the subject of complaints received, it being alleged that smoke from a short chimney was soiling the clothes in an adjoining laundry. The chimney stalk was heightened and the complaints ceased.

Verminous Houses.—A number of complaints were received as to the prevalence of vermin of various kinds in property throughout the District, in some cases the property being of a superior class. Advice was given and disinfectants supplied with, on the whole, satisfactory results.

Many complaints were received as to the infestation by rats of dwellings in certain parts of the District, and the cases were reported to the County Clerk to be dealt with under the Rats and Mice (Destruction) Act, 1919.

Sanitary Conditions at Greengairs.—Representations having been made to the Department of Health regarding alleged insanitary conditions at Greengairs, a report in the following terms was submitted to the Committee, and is being dealt with :—

"The village of Greengairs comprises 174 dwellings, mostly one storey, built along the north and south sides of the public highway.

"*Privies, &c.*—The sanitary conveniences are mostly of the privy-midden type, there being only 22 water-closets in the village. The privy-middens, with the exception of those at four properties, are in fairly good condition, and are cleaned out at intervals by local farmers.

"At Rankin's Rows, however, a group of 56 dwellings, three old open privy-middens are in a filthy condition while the surface channels are retaining liquid, and require to be re-graded. Eleven of the dwellings in these rows are presently unoccupied, and the remainder are in such a state that a Closing Order might be asked for.

"*Water Supply.*—The water supply throughout the whole village is from the Middle Ward gravitation system. Fifty-seven dwellings, or about one-third of the total, have inside sinks and water supply, the remainder being served from outside taps.

"*Drainage.*—There is no proper drainage system for the village. The various water-closets are connected to cesspools, the overflows from which discharge into the Cameron Burn. There are 13 outside jawboxes serving 85 of the houses for the disposal of slop water. Only two of these have water supplies. The remaining dwellings make use of the open surface channels and road gullies for the disposal of slop water, the whole of which finds its way into the Cameron Burn.

"*Cameron Burn.*—The Cameron Burn is close to the public highway at the west end of the village, and at this point has a very small flow of water, is badly polluted, and smelling strongly. From this point eastwards the burn is abutting on the gardens of the houses on the south side of the highway, and its condition is similar throughout. The bed of the burn was thoroughly cleaned out by this Department at the end of July last, when all refuse matter and sludge was taken out, but the flow of water is so small that it is insufficient to dilute the amount of sewage discharge and keep the channel clean.

"*Remedies.*—The unsatisfactory privy-middens at the four properties above referred to are being dealt with under Section 16 of the Public Health Act.

"A house-to-house inspection of Rankin's Rows will be made with a view to the preparation of a Representation under the Housing Acts.

"The want of adequate sewerage facilities has so far prevented the Department from insisting upon the owners of the various properties introducing inside sinks, water supply, and water-closet accommodation, and the lack of these sewerage facilities has been under consideration by the Committee from time to time, Greengairs being one of the villages included in the list of areas outwith the existing Special Drainage Districts for which drainage facilities are required."

Sanitary Conditions at Caldercruix.—Representations having been made to the Secretary of State regarding alleged insanitary conditions at Caldercruix, a report in the following terms was submitted to the Committee, and is being dealt with:—

"The villages known as Caldercruix, Glengowan, and Hillend are contiguous, and all are included within the boundaries of a Special Scavenging District, the number of dwellings in the area being 429.

"100 of these dwellings are situated in the Housing Scheme belonging to the Local Authority, are of recent construction with modern conveniences, have the contents of their dustbins removed twice weekly, and need not be further discussed.

"At the remaining 329 dwellings the conditions may be briefly summarised thus :—

"*Water Supply.*—All the dwellings are supplied with Middle Ward gravitation water. 209 dwellings have inside sinks and water supply, the other 120 dwellings being supplied from outside taps.

"*Closets.*—Only 75 dwellings have water-closet accommodation. 254 dwellings have privy-middens of the type usually found in our country districts, and these are situated in the garden ground or back courts at some distance from the dwellings. There is little privacy, but this cannot easily be remedied with this type of convenience. Some of the structures are in need of repair, and are being dealt with by the Department. These privy-middens are regularly scavenged, and the contract provides for their cleaning out at least once a month, or whenever the contents amount to one cart-load. At the time of inspection none of the receptacles contained a cart-load.

"The introduction of water-closet accommodation at all dwellings in the area is desirable, and would effect a vast improvement on the amenities, but this is presently impracticable owing to the lack of adequate drainage facilities.

"*Insanitary Dwellings.*—18 dwellings are on our list for inspection with a view to Representations being prepared under the Housing Act, and these will be included in the list presently being prepared for the Committee, who are to consider the provision of further new dwellings under the Scheme for the Improvement of Insanitary Areas.

"*Drainage.*—There is no system of public sewers, and the discharges from water-closets, sinks, &c., are dealt with by means of private drains and cesspools and drains belonging to the Highway Authorities. The sewage all finds it way to the North Calder Water, the sewage from the Housing Scheme being discharged in a crude condition. The only nuisance conditions seen were at the Post Office, where the waste water from a wash-house was flowing into the highway surface channel, but this had already been reported and is being dealt with.

"There is a clamant need for the provision of sewers and sewage purification works, and this district has been reported to the Committee from time to time as one of the areas outwith Special Drainage Districts for which drainage facilities are required."

Cinemas.

All the cinemas within the District were regularly inspected during the year, and the general standard of cleanliness previously reported continues to be maintained. Defects of a minor character were found in certain premises, but these were remedied immediately on being brought to the respective managers' notice.

Public Conveyances.

During the year 2,657 inspections of public conveyances were made, and it was found that the general cleanliness of same was good. Complaint, however, has been made in respect of the inadequate ventilation of motor-buses, especially during wet weather when the windows are shut tight. One can appreciate the discomfort and potential danger to health in such a conveyance filled with passengers on a long journey, and it would seem to be a case for car manufacturers to apply the skill at their command in evolving a proper system of ventilation in buses.

Workshops.

The number of workshops on the register at the beginning of the year was 303. Since then 11 have been added and 30 removed, leaving 284 at the close of the year.

During the year three 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 made numbered 535, and two notices were received from the Inspector of Factories regarding insanitary conditions in workshops. The matters complained of—a dirty bakehouse and a defective ceiling—were taken up and dealt with by the Sanitary Staff. The Department also dealt with other eleven dirty bakehouses, three dirty water-closets, and a leaky water-closet roof found in the course of our routine inspections.

Two lists, containing five outworkers, under Section 107 of the Factory and Workshop Act, were received from the City of Glasgow Authority. Inspections were made of all the premises, and these were found in a satisfactory condition.

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

HANDICRAFTS.

Dressmaker,	12	Plumber,	12
Tailor,	50	Cartwright,	1
Milliner,	8	Motor Repairer,	3
Baker,	98	Hosier,	5
Shoemaker,	39	Coachbuilder,	3
Saddler,	5	Coachpainter,	1
Blacksmith,	18	French Polisher,	1
Joiner,	15	Confectioner,	2
Cabinetmaker,	3	Underclothing,	1
Moss Litter Work,	1		
Watchmaker,	6	Total,	284

Fire Escapes.—Two applications were received requesting a certificate of the Local Authority in terms of Section 14 (1) of the Factory and Workshops Act, 1901, as to provision of means of escape in case of fire. In one case—Bothwell Laundry—the Committee granted a certificate after certain work recommended by the Department had been carried out. In the second instance—Bellshill Hosiery Factory—the necessary work had not been completed at the close of the year.

Public Schools.

The various public schools were inspected throughout the year, and several matters requiring attention were brought to the notice of the Education Authority. The general cleanliness of the schools and lavatories was found to be satisfactory.

Auldhouse and Chapelton.—In view of the proposal to re-surface the playgrounds at these schools, the drainage systems were completely overhauled and made suitable in the event of water-closets being introduced in the future.

New Stevenston.—A plan was submitted showing the provision of fourteen pedestal water-closets at New Stevenston Public School in lieu of the existing trough closets. The work has not yet commenced.

Baillieston.—A new school has been erected at Rhindsmuir, Baillieston, and it is anticipated that the old school at West Maryston will be discontinued.

Tents and Vans.

In the course of the year 295 inspections of tents and vans were made throughout the District, and all the premises were found in a satisfactory condition. It was noted that there is a diminution in the number of van dwellers of the stationary type.

Cambuslang.—A caravan was found occupied on vacant ground at the rear of 206 Main Street, Cambuslang. A water supply, water-closet accommodation, and drainage are available, and there has been no cause for complaint.

Tollcross.—A field at the junction of Easterhill Street and Causewayside Street, Tollcross, has been used for the second season as a camping ground for a few caravans, and small "shows" are held at intervals. The ground is not suitable from a sanitary aspect as there is no water supply and drainage available convenient for the occupiers of the vans. No nuisance conditions, however, were found, and scavenging was carried out three times weekly.

Summer Camp.—At Lickprivick Farm, East Kilbride, the summer camp was again occupied by some 30 families, and the satisfactory conditions previously reported were again found.

Interments.

The bodies interred at the expense of the Local Authority in the course of the year numbered 24, an increase of four over the previous year, the deaths being due to various causes. Twenty of the bodies were claimed and four unclaimed, but no "sufficient person" undertook the burial. No fewer than nineteen of the bodies were those of infants, and it is a sad commentary on the state of the industry in this District that in sixteen of these cases the parents were unemployed coal miners, who were quite unable to bear the small cost of interment.

The total cost to the Local Authority amounted to £49 14s. 9d., and in three instances sums were afterwards recovered from relatives and others amounting in the aggregate to £8 9s. 9d.

Common Lodging-houses.

There are now only two common lodging-houses in the Middle Ward Area, and the keepers of both applied for and were granted by the Committee renewal of registration. The premises were regularly

inspected and found in a satisfactory condition. Owing to the acute industrial depression within the District, less than one-half of the available accommodation has been utilised in each lodging-house.

Dairies, Cowsheds, and Milkshops.

During the year 1,860 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, a number of special visits were made at milking time to dairy farms, and, where methods of milking were found to be unsatisfactory, instructions were given to those concerned. Statistics and details of special milk samples relating to this subject are given *infra*.

Several cowkeepers were dealt with for failing to keep their dairy animals properly cleaned and groomed, and in some instances cowkeepers were warned as to the dirty condition of byres, &c. In all these cases the warning had the desired effect.

New Byres, &c.—Good progress is being maintained in the provision of new byres, and the following plans were submitted and approved of during the year for improvements and alterations at dairy premises:—

Rylandside, Strathaven, ...	New Byre.
Netherholm, Strathaven, ...	New Byre, &c.
Holms of Glengavel, Strathaven, ...	New Byre.
Gainerhill, Strathaven, ...	New Byre.
Mid Murray, East Kilbride, ...	New Byre.
Dykehead, Busby, ...	New Byre.
Waukenwae, Chapelton, ...	Byre, &c., improvements.
Low Kittymuir, Stonehouse, ...	New Byre.
Bruntland Dairy, Waterloo, ...	New Byre, &c.
Morningside, Newmains, ...	New Byre.
Dewshill, Shotts, ...	New Byre.
Standhill, Westcraigs, ...	Byre alterations.

Improvements.—Many improvements on byres, milk-houses, &c., were carried out during the year, particularly as regards inlet and outlet ventilation and lighting of byres.

Drinking Bowls.—The introduction of water bowls to byres continued on the increase during the year, and, in order to obtain the benefits of water bowls for the dairy animals where the public supply is not available, water supplies to various farms are being improved by the provision of power water-pumps and storage tanks. This also provides a useful supply of water for dairy and domestic purposes from taps, thus obviating the necessity of using old-fashioned hand-pumps for every drop of water required in the dairy or household.

Registration.—During the year 72 applications for registration were received, and, including the applications continued from the previous year, 80 certificates of registration were granted by the Local Authority, 11 were refused, and 2 applications were withdrawn. The number of businesses discontinued was 14, leaving a total of 915 registered dairies—726 producers and 189 retailers only—at the close of the year. Included in the foregoing total are 50 retailers by vans from outwith the District. The approximate number of dairy animals found in registered byres was 14,500.

The following table shows the distribution of producers of milk, retail milkshops, and retailers from vans within each parish of the District :—

Parish.	Producers.	Milk Shops.	Vans.	Total.
Avondale, ...	141	8	—	149
East Kilbride, ...	103	3	2	108
Glasford, ...	51	4	—	55
Stonehouse, ...	30	1	—	31
Blantyre, ...	21	17	4	42
Bothwell, ...	73	33	8	114
Cambuslang, ...	22	24	5	51
Cambusnethan, ...	50	9	2	61
Dalserf, ...	22	9	—	31
Dalziel, ...	6	—	—	6
Hamilton, ...	46	1	2	49
New Monkland, ...	67	5	11	83
Old Monkland, ...	30	13	18	61
Shotts, ...	64	9	1	74
Totals, ...	726	136	53	915

Exempted Premises.—The general conditions and cleanliness of the few exempted premises within the Middle Ward Area were found to be good.

Milk and Dairies (Scotland) Order, 1925.—Several dairymen were dealt with during the year for failing to carry out the requirements of Articles 5 to 16 of the Milk and Dairies Order, and in every instance the warning which was administered had the desired effect. In the course of inspections it was found that some milk cans and lids sent into this District from Glasgow creameries were in a battered and filthy condition. The matter was taken up with the Glasgow Authority, since when there has been no cause for complaint.

Prosecutions.—Proceedings in Court were instituted against the occupier of Holms of Glengavel Farm, Strathaven, for a contravention of the Milk and Dairies Act, in respect of his having accommodated dairy cows in an auxiliary byre which was unregistered. The accused was admonished, and a new byre has now been erected in conformity with the Local Authority's requirements.

The occupier of Calderglen Home Farm, Blantyre, was also charged in the local Sheriff Court with several contraventions of the Local Authority's By-laws under the Milk and Dairies Act, and the Sheriff found it proved that the respondent had failed (1) to have three dairy cows kept clean; (2) to see that clean overalls were worn by himself and son during the milking of the cows; and (3) as each cow was milked, to have the milk removed immediately from the byre. As this was the first case of its kind, the Sheriff limited the penalty to £1 for each offence, or £3 in all, with the alternative of 15 days' imprisonment. In subsequent inspections there was observed a marked improvement in the methods employed during milking operations.

Cleanliness of Milk Supplies.—In order to ascertain the condition of milk supplies within the Middle Ward District, arrangements were made in June for the procuration of informal milk samples for examination by the County Bacteriologist. The samples were obtained by the Sanitary Staff during early morning and afternoon milking at dairy farms, and also from milkshops and carts. In all 473 samples were taken and examined during the half-year, and the results, which are given in the following table, show that there was a preponderance of dirty milk among the samples examined.

Table showing the number of Milk Samples taken in each Parish, and the number of *bacteria* per c.c., and presence of *Coliform Bacilli* found in the Samples.

Parish.	Number of Samples	Bacteria per c.c.											Coliform Bacilli.			
													Present in			Absent.
		Under–10,000	50,000	100,000	200,000	300,000	400,000	500,000	1 million.	2 millions	3 millions	4 millions	$\frac{1}{1000}$ of a c.c.	$\frac{1}{100}$ of a c.c.	$\frac{1}{10}$ of a c.c.	
Avondale,	68	15	25	6	9	4	2	3	2	1	1	—	21	9	15	23
East Kilbride,	40	3	21	5	—	2	3	—	2	3	1	—	13	6	11	10
Glasford,	7	—	5	1	1	—	—	—	—	—	—	—	1	1	1	4
Stonehouse,	17	9	4	1	2	1	—	—	—	—	—	—	1	2	1	13
Blantyre,	49	4	18	6	8	2	1	2	3	4	—	1	23	10	4	12
Bothwell,	42	4	12	6	7	4	3	1	2	3	—	—	14	9	6	13
Cambuslang,	56	8	18	8	5	7	4	1	4	1	—	—	18	9	14	15
Cambusnethan,	24	4	10	4	3	1	1	—	1	—	—	—	8	3	2	11
Dalserf,	45	7	18	9	7	1	2	—	—	—	—	1	5	11	12	17
Dalziel,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hamilton,	18	3	9	1	4	—	—	—	1	—	—	—	4	3	5	6
New Monkland,	22	6	10	2	—	—	—	—	2	2	—	—	6	4	3	9
Old Monkland,	37	5	12	7	9	—	—	1	1	2	—	—	7	9	10	11
Shotts,	48	6	22	10	6	3	1	—	—	—	—	—	10	6	10	22
Total.	473	74	184	66	61	25	17	8	18	16	2	2	131	82	94	166

Coliform Bacilli were found in 307, or almost two-thirds of the total samples, and in 88 samples *bacteria* of from 200,000 to over 3,000,000 per c.c. were found. The worst of the samples examined gave a *bacterial count* of 3,324,000 per c.c., with *Coliform Bacilli* present in 1/1,000 of a c.c., while the best was a sample of ordinary milk with a *bacterial count* of only 1,700 per c.c., and *Coliform Bacilli absent* in 1/10 c.c.

The primary cause of such dirty milk was undoubtedly bad milking methods and, as already stated in a preceding paragraph, in all such cases visits were made by the Sanitary Staff to the premises concerned during milking times, to see that the provisions of the Local Authority's By-laws on the subject were being observed, and to give such advice as was necessary.

Following on these special visits, repeat samples of milk were taken in every instance, and the results of examination showed a vast improvement on the initial samples. For example, one initial sample gave a *bacterial count* of 1,500,000 per c.c., with *Coliform Bacilli* present in 1/1,000 c.c., which was reduced in the repeat sample to 4,500 *bacteria* per c.c., and *Coliform Bacilli* absent in 1/10 c.c.

The latter result indicates that, if proper methods are adopted, there is nothing to prevent pure milk being offered to the public, but to ensure this, it is essential that absolute cleanliness be maintained in every stage of dairy work, in the transport of milk, and during the sale of same.

The sampling is being continued, and we find from the recent results that the general quality of the milk supplies is much improved, and that there is widespread desire on the part of producers to maintain a low *bacterial count*. In only a few instances has there been any resentment shown towards our procedure, and the old antagonistic attitude is happily disappearing.

Houses Let in Lodgings.

As stated in former Annual Reports, the registration of houses let in lodgings is still in abeyance, owing to the scarcity of suitable housing accommodation in the District. Numerous inspections, however, were made of houses where single lodgers were kept or apartments sub-let to families, and action was taken where gross overcrowding was found.

Offensive Trades.

There are eleven private slaughter-houses within the District, situated as follows:—Hareshawhead, Strathaven, Newarthill, Omoa, Chapelhall, Caldercruix, Greengairs, Longriggend, Cleland (3), and Harthill. In the course of the year regular visits of inspection were made, and, although the structural conditions are not quite satisfactory, the premises were all found in a clean condition.

Public Abattoirs.—There are seven abattoirs in operation belonging to the Local Authority, and these are situated at Baillieston, Blantyre, Bellshill, Larkhall, Shotts, Stonehouse, and Strathaven.

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, and the gut-cleaning business at 11 Clark Street, Blantyre, was also carried on without complaint.

Unsound Food.

During the year 871 inspections were made of shop premises, vans, &c., and three seizures, comprising 56 lbs. of fish and 165 lbs. of apples were made by the Sanitary Staff. Particulars as to the inspection of meat are given in the District Meat Inspector's Report.

Food Inspection.

Numerous inspections were made of shops, hawkers' carts, &c., where foodstuffs were exposed for sale, and, with a few exceptions, the premises were all found in a clean condition. The quality of the foodstuffs being retailed was generally found to be good.

In the course of the inspections a hawker was found to have stored a quantity of fruit and vegetables in an occupied stable and, after an interview, he disposed of his horse and procured a motor lorry, which is now used for his business and kept in a separate shed. The stable was thoroughly cleaned out and adapted as a store for fruit and vegetables.

The question of the sale of foodstuffs from dwelling-houses is one requiring immediate attention, as the goods sold from these premises are by no means all of the tinned or wrapped variety, and contamination cannot be prevented, especially when the goods are stored in a living-room.

As already stated in my Annual Report for 1925, page 313, "the storage and sale of foodstuffs in dwellings, whatever their size, ought to be prohibited."

Meat Regulations.

Storage of Meat.—A renewal of the certificate of approval of accommodation at Caerlaverock, Foxley, Tollcross, for the storage of meat food products was granted by the Local Authority in terms of Section 12 of the Public Health (Meat) Regulations (Scotland), 1924. The premises were regularly inspected during the year, and everything was found to be satisfactory.

Pigstyes.

The inspections made during the year numbered 241. Two applications for sanction to erect pigstyes were granted by the Local Authority. With a few exceptions, the premises were all found to be kept in good order and free from nuisance conditions.

Burial Grounds.

The various burial grounds throughout the District continue to be kept in good order.

As referred to in last Annual Report, new lavatory accommodation, comprising two water-closets and a urinal for men and three water-closets for women, have been provided at New Monkland Cemetery for the use of visitors.

An extension has been made to the burial ground at Bothwellpark by the acquisition of a large area of land to the east of the present cemetery. The Old Monkland Cemetery at Bargeddie was also extended by taking over twelve acres of adjoining land, and about one-quarter of this area is at present being laid out. At the Airbles Cemetery, Motherwell, an extension is also in contemplation.

Churchyards, &c.—A number of interments was carried out in the old churchyards at East Kilbride and Stonehouse. The conditions were satisfactory in every case.

The other old churchyards and burial grounds continue to be kept in a satisfactory condition.

Quakers' Burial Ground.—As the result of an enquiry from the Society of Friends regarding the possibility of a burial taking place

at the Friends' Burial Ground at Shawtonhill, Chapelton, investigations were made in the District for information regarding the previous use of the ground as a burial place. From the information received, it appears that this burial ground was in constant use by the Quakers until the year 1730, about eighty interments having taken place there up to that year. Since then burials were chiefly carried out in Quaker burial grounds elsewhere, although an occasional interment took place at Shawtonhill, and it is said to be over a century ago since last a Quaker was laid to rest there. Unfortunately, no documentary proof could be obtained, but it is conceivable from the present state of the burial ground that many decades have passed since an interment was carried out at Shawtonhill.

It was intimated to the Society that if they should decide to proceed with any burials at Shawtonhill, they would require to satisfy themselves that there is no order in force prohibiting further burials, and that certain conditions should be complied with to ensure that the interments could be made in such a manner as not to be injurious to public health or offensive to decency. No further communications have been received from the Society in connection with the matter.

J. Millar,
County and District Sanitary Inspector.

District Offices,
Hamilton, 5th March, 1930.

COUNTY HOSPITAL

NEAR

MOTHERWELL

REPORT BY THE PHYSICIAN-SUPERINTENDENT, JOHN REID, M.D., D.P.H., F.R.F.P.S.

1929

At the beginning of the year 187 cases were in residence. Throughout the year 2,293 were admitted, making a total of 2,480. Of these, 2,149 were discharged recovered or improved, 169 died, and 162 were in hospital at the end of the year. The total number of admissions was 28 less than for the previous year, which was the largest on record. The considerable increase in the admission rate for the last two years has been, to some extent, due to the large number of bacteriological cases sent in as diphtheria and the varied pulmonary cases notified as pneumonia.

Scarlet Fever admissions were approximately the same as for last year. The type of disease was extremely mild, and the death-rate only 0·2 per cent.

Diphtheria notifications exceeded the previous year by 72. Of 643 cases notified as diphtheria, 313 were wrongly diagnosed; 131 bacteriological cases without clinical signs were not classified as true diphtheria. In 63 cases not even a positive swab was obtained while in hospital. For the last two years an extraordinary increase in swabbing throats has been noticeable in the Middle Ward. At the same time no appreciable improvement in the day of admission of obvious clinical cases has been observed.

Enteric Fever.—Only 10 cases were treated. Of these, 5 were due to B. Typhosus and 5 to B. Paratyphosus B.

Puerperal Sepsis numbers are approximately similar to those of the previous year. Since the new Pyrexia Regulations came into force it has been distinctly noticeable that greater interest is being taken in puerperal cases. Although the average day of disease on admission has not been reduced, more mild cases have been admitted. Fifty per cent. of the cases were classified as mild, and there has been a reduction in the numbers classified as very severe. The death-rate was 20·1 per cent., as compared with 29·6 per cent. for the previous year.

Pneumonia admissions were increased by 57. Twenty-five per cent. were wrongly diagnosed. The term pneumonia seems to be recognised now as a generic term for chest diseases generally. This is probably a point of view to be encouraged if sufficient bed accommodation were available and if moribund cases were left at home.

Tuberculosis work has been restricted, partly due to the demands for pneumonia accommodation and to the sanatoria taking more of the surgical cases formerly sent here.

Venereal Disease indoor cases have dropped slightly, but the outdoor work remains at a fairly high level.

Measles and Whooping-Cough.—Although accommodation was available throughout the year, very few cases were admitted.

Radiological Work.—706 cases were photographed. Now that chest cases are freely admitted, the installation is of the greatest value in doubtful diagnoses.

The number of admissions from All Diseases was greatest in the month of January. The total for the whole month was 287. During the week ending 19th January, 78 cases were admitted. The greatest number admitted on one day was 21, on 19th January. The average daily number of patients resident was 184·7. The greatest number resident on any one day was 267, on 5th February; and the smallest, 115, on 11th September.

The average duration of residence of all cases discharged was 30·4 days; of all recovered cases, 31·6 days; and of fatal cases 10·8 days.

The fatality rate, calculated on all cases discharged, was 7·2 per cent. This figure includes all cases dying in hospital.

The diagnosis of the medical attendant was revised in 585 cases, or 25·2 per cent. of the total discharged.

Request for removal of patients to hospital was made by the medical attendant in 31·2 per cent. of the cases, and by the Public Health Department in 68·7 per cent.

Accommodation.—Taking the year all over, overcrowding has not been so marked as in 1928, although the total number admitted was only 28 less.

Scarlet fever numbers have not been excessive, and cases were discharged earlier.

Diphtheria accommodation has, however, been most urgent throughout the year, due to the large number of bacteriological cases notified as diphtheria.

Pneumonia cases now require two pavilions, and during the winter months part of another. This has, to a large extent, diminished the number of beds for urgent tuberculosis work.

SCARLET FEVER.

91 cases of scarlet fever were in hospital at the beginning of the year. Throughout the year 732 patients were admitted. In 99 cases the diagnosis was revised, and 16 other cases proved to be suffering from scarlet fever. Of these 740 cases, 676 were discharged well, 2 died, and 62 were in hospital at the end of the year.

Removal to Hospital was carried out in 92 per cent. of the cases in the first week of illness, 4·4 per cent. in the second week, and 3·5 per cent. in the third week or later.

The Average Day of Disease of all cases was 4 days.

The Average Duration of Residence of all cases was 38·2 days; of recovered cases, 38·2 days; and of fatal cases, 11 days. The following table indicates the period of residence of the 676 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,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68
Fifth	29	30	31	32	33	34	35	57	66	96	29	58	49	12	367
Sixth,	36	37	38	39	40	41	42	22	27	18	9	17	17	4	114
Seventh,	43	44	45	46	47	48	49	5	7	8	4	5	6	4	39
Eighth,	50	51	52	53	54	55	56	4	2	6	2	3	6	2	25
Ninth,	57	58	59	60	61	62	63	3	4	2	1	4	2	—	16
Tenth,	64	65	66	67	68	69	70	5	2	2	—	4	6	—	19
Over ten weeks,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28
Total Number of Cases,															676

Type of Disease.—582, or 85·8 per cent., of the total cases discharged were classified as mild; 78, or 11·5 per cent., as moderately ill; and 18, or 2·6 per cent., as very severe. In the latter group 1 was septic and 1 toxic.

The Fatality Rate, as calculated on the discharges, was 0·2 per cent.

A male, aged 20 years, admitted on the third day of disease, developed a streptococcal pericarditis.

A female, aged 20 years, admitted on the third day of disease suffering from toxic scarlet fever, failed to react to antitoxin.

Corrected Diagnoses.—Of the cases notified as scarlet fever, 13·5 per cent. were wrongly diagnosed. These were:—Abscess, 1; burn, 1; chickenpox, 5; diphtheria, 3; doubtful, 43; erythema, 1; gastro-enteritis, 1; impetigo, 1; measles, 9; negative, 22; nephritis (acute), 3; osteomyelitis, 1; pneumonia, 1; rhinitis, 2; septic sores, 1; sore throat, 2; whooping-cough, 2.

Complications.—34·5 per cent. of the cases discharged had one or more complications.

Glands.—83, or 12·2 per cent. of the cases discharged, showed glandular enlargement. These were:—Non-suppurative adenitis, 80; suppurative adenitis, 3. All degrees of glandular involvement are included.

Ear.—51, or 7·5 per cent., developed otitis media; 1 was moist on discharge, and 6 developed acute mastoiditis.

Heart.—In 12 cases a transient murmur developed during convalescence. In 2, organic disease developed.

Nose.—93, or 13·7 per cent., developed rhinitis.

Joints.—In 12, or 1·7 per cent., transient arthritis was present.

Kidney. — 10, or 1·4 per cent., had true nephritis, 2 slight albuminuria, and 1 pyelitis.

Lungs.—Bronchitis, 4.

Eye.—Conjunctivitis, 5; dacryo-cystitis, 1.

Skin.—Dermatitis, 2; serum rashes, 4; urticaria (non-serum), 3.

Sepsis.—Abscesses, 13; paronychia, 11; sores (various), 3.

Other Complications.—Enteritis, 1; laryngitis, 1; pharyngitis, 1; positive swab, 6; tonsillitis, 3.

Other Conditions present on Admission and not related to the Attack of Scarlet Fever.—Boils, 3; burn, 4; chronic dermatitis, 1; chronic otitis media, 9; enuresis, 1; epilepsy, 1; fracture, 1; herpes, 3; impetigo, 2; lupus, 1; meningismus, 1; organic heart disease, 9; rickets, 1; scabies, 1; septic wound, 1; tuberculosis, 3; vaginitis, 3.

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 ,, -	—	1	—	2	—	—	—	4	1	—	—
-3 ,, -	—	9	3	1	1	—	—	16	—	—	—
-4 ,, -	—	14	2	2	2	—	1	17	1	—	2
-5 ,, -	—	6	2	4	—	—	1	9	2	—	2
-6 ,, -	2	10	3	5	1	—	1	20	1	1	2
-7 ,, -	—	7	2	3	1	—	1	10	—	—	1
-8 ,, -	—	3	2	2	1	—	1	7	1	1	1
-9 ,, -	1	10	—	2	1	—	1	6	—	1	2
-10 ,, -	—	1	1	1	—	—	1	—	—	—	—
-15 ,, -	—	11	1	3	—	—	2	3	—	1	—
-20 ,, -	—	5	2	1	—	2	1	—	—	3	—
Over 20 ,, -	—	3	—	—	—	—	2	1	—	5	—
Total, -	3	80	18	26	7	2	12	93	6	12	10

Week of Illness.	Cervical Adenitis.		Otitis Media Purulenta			Cardiac Complications.		Rhinitis.	Mastoiditis.	Arthritis.	Nephritis.
	Suppurative.	Non-Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
First, - -	1	39	6	8	—	—	2	53	1	9	—
Second, - -	1	13	5	8	1	—	2	13	—	3	1
Third, - -	—	12	3	5	3	—	2	6	1	—	5
Fourth, - -	—	10	2	4	1	—	4	9	—	—	1
Fifth, - -	—	5	—	—	1	—	—	7	2	—	2
Sixth, - -	1	—	2	—	—	1	1	2	2	—	—
Seventh, - -	—	—	—	1	1	1	1	3	—	—	—
Eighth, - -	—	1	—	—	—	—	—	—	—	—	1
Ninth, - -	—	—	—	—	—	—	—	—	—	—	—
Total, -	3	80	18	26	7	2	12	93	6	12	10

Scarlet Fever Antitoxin.—Of 56 cases which had serum, 3 were mild, 37 moderate, and 16 severe. The average dose was 20 c.c. In 8 instances it was given intravenously. 4 cases developed serum rashes. 27, or 48·2 per cent. of the serum treated cases, developed one or more complications.

Diphtheria Antitoxin was given in 47 cases. The average amount was 5,000 units.

Mixed Infections.—Chickenpox, 4; whooping-cough, 1.

"Return" Cases.—28 days is taken as the period within which a case is regarded as a "return." All negative and doubtful cases have been disregarded.

Presumably only 2 cases infected 2 others.

The infectivity rate is 0·29 per cent. of all true cases discharged.

Summary of the most important statistics relating to scarlet fever during the past six years:—

	1924.	1925.	1926.	1927.	1928.	1929.
Number of scarlet fever patients discharged recovered, - -	818	800	707	465	661	676
Number of presumably infectious cases discharged, - - -	8	20	9	12	5	2
Infectivity rate, - - -	0·9	2·5	1·2	2·5	0·75	0·29
Number of deaths from scarlet fever, - - - -	16	16	7	3	5	2
Fatality rate, - - - -	1·9	1·9	0·98	0·64	0·75	0·2
Average duration in days of the cases discharged, - - -	50·2	51·9	50·6	51·9	43·6	38·2

Ionisation for Otitis Media.

28 cases of otitis media were treated with zinc ionisation. All the cases were first tried for a short period with the usual antiseptic treatment.

In 22 cases of scarlet fever, including 7 of chronic otitis media, cure apparently resulted in 16, and 6 were moist after varying periods of treatment.

6 other patients (other diseases) with otitis media were either cured or improved.

Both ears were involved in 8, the right ear in 11, and the left ear in 9. The average number of applications given was 3·5.

Schick Test in Scarlet Fever.

	Age-Periods.											
	1	2	3	4	5	6	7	8	9	10	Over 10	Total.
Positive,	1	24	35	40	47	41	33	27	29	18	72	367
Negative,	1	14	23	13	23	25	23	28	24	12	113	299
Total,	2	38	58	53	70	66	56	55	53	30	185	666

363 of the susceptibles were immunised with toxoid-antitoxin.

Prophylaxis in Other Diseases.

Children admitted to hospital suffering from other diseases, like measles, whooping-cough, tuberculosis, &c., as far as possible had the Dick Test performed, and the susceptibles were immunised.

Of 58 cases, 15 were positive, and of these, 9 were immunised against scarlet fever.

DIPHTHERIA.

42 cases of diphtheria were in hospital at the beginning of the year, 643 were admitted as such, 313 were wrongly diagnosed, and 3 others proved to be cases of diphtheria. Of these 375 patients, 325 were discharged well, 12 died, and 38 were in hospital at the end of the year.

Removal to Hospital was carried out within the first three days of illness in 57·5 per cent. of the cases. In the fatal cases the average duration of illness prior to admission was 7 days.

The Average Day of Disease of all cases on admission was 3·7 days.

Duration of Residence.—The average duration of residence of all cases was 34 days; of recovered cases, 35·2 days; and of fatal cases, 13·5 days.

Type of Disease.

Faucial Diphtheria.—In 283 cases, including 2 fatal, the faucial region of the throat was affected.

Mild.—In 195 instances the exudate was limited, with little or no toxæmia. 1 case had serum prior to admission. The average amount of serum given in hospital was 7,800 units. 5 cases had scarlet fever antitoxin.

Complications and Sequelæ.—Arrhythmia, 1; diarrhœa, 1; serum rash, 3; suppurative adenitis, 1. 12 cases had tonsils removed for persistent positive swabs. 1 case, in addition, suffered from whooping-cough. In 17 instances the organism proved to be avirulent.

Moderate.—In 59 cases the membrane or exudate was more extensive and accompanied by considerable toxæmia. The average amount of antitoxin given was 20,700 units. 10 patients had, in addition, scarlet fever antitoxin.

Complications and Sequelæ.—Adenitis, 1; albuminuria, 1; arrhythmia, 1; cardiac paresis, 2; otitis media, 1; palatal paresis, 2; rhinitis, 1; serum rash, 4. I patient had, in addition, chickenpox.

Severe. — In 29 cases, including 2 fatal, toxæmia was profound. 1 case had serum prior to admission. The average amount of serum given was 78,600 units. 14 patients had scarlet fever antitoxin.

Complications and Sequelæ.—Adenitis, 2; arrhythmia, 2; cardiac murmur, 2; cardiac paresis, 2; otitis media, 2; palatal paresis, 6; serum rash. 1 case had the tonsils removed.

Laryngeal Diphtheria. — In 32 cases, including 3 fatal, the larynx was involved.

Mild.—In 14 instances the stenosis was slight. The average amount of serum given was 8,000 units.

Moderate.—2 cases showed signs of more extensive involvement. The average amount of serum given was 14,000 units.

Severe.—In 16 cases, including 3 deaths, the obstruction was extreme and required immediate operative interference. The average amount of serum given was 18,500 units. 1 case had scarlet fever antitoxin.

Complications and Sequelæ.—Bronchitis, 1; broncho-pneumonia, 4; intubation, 8; tracheotomy, 2; intubation and tracheotomy, 6.

Faucial and Laryngeal Diphtheria.—The faucial and laryngeal regions were involved in 14 cases, including 4 fatal.

4 mild cases had, on an average, 10,000 units of serum.

In 3 cases of moderate severity an average of 26,600 units of serum was required.

7 cases were severe in type. 2 had serum prior to admission, and the average amount given in hospital was 40,000 units.

Complications and Sequelæ. — Broncho-pneumonia, 2; cardiac paralysis, 2; nephritis, 1; otitis media, 1; intubation, 4; tracheotomy, 2; intubation and tracheotomy, 1.

Faucial, Nasal, and Laryngeal Diphtheria.—3 severe cases had, on an average, 73,000 units of serum and 30 c.c. of scarlet fever antitoxin. 1 was intubated.

Laryngeal and Nasal Diphtheria.—1 mild case had 12,000 units of serum and 10 c.c. of scarlet fever antitoxin.

Faucial and Nasal Diphtheria.—3 fatal cases had, on an average, 119,300 units of serum by the intravenous and intramuscular routes.

Complications and Sequelæ.—Adenitis, 1; albuminuria, 3; cardiac paralysis, 3; palatal paralysis, 1; rhinitis, 1.

Skin Diphtheria.—1 case had a wound on the back of the neck from which virulent diphtheria bacilli were isolated. It cleared up with 8,000 units of antitoxin.

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

Site of Membrane.	Mild.		Moderate.		Severe.		Total.	
	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.
Faucial, - - - - -	195	—	59	—	27	2	281	2
Laryngeal, - - - -	14	—	2	—	13	3	29	3
Faucial and laryngeal, -	4	—	3	—	3	4	10	4
Faucial, laryngeal, and nasal,	-	—	—	—	3	—	3	—
Laryngeal and nasal, - -	1	—	—	—	—	—	1	—
Faucial and nasal, - - -	—	—	—	—	—	3	—	3
Skin, - - - -	1	—	—	—	—	—	1	—
							325	12

Diphtheritic Paralysis.—In 22 cases, or 6·5 per cent. of the clinical cases, paralysis in one form or another was noted. The regions affected were :—Heart, 9 ; palate, 9 ; arrhythmia, 4.

Mixed Infections.—Diphtheria and chickenpox, 1 ; diphtheria and whooping-cough, 1.

Complications.—43, or 13 per cent., of the clinical cases developed one or more complications. This figure includes serum rashes.

Other Conditions Present on Admission.—Chorea, 1 ; eczema, 1 ; otitis media, 3 ; tubercular glands, 1 ; tubercular spine, 1 ; tubercular hip, 1 ; scabies, 2 ; vaginitis, 1.

Corrected Diagnoses.—313, or 48·1 per cent., of the cases discharged were wrongly diagnosed :—Abscess, 1 ; adenitis, 1 ; albuminuria, 1 ; anæmia, 1 ; bronchiectasis, 1 ; bronchitis, 3 ; cough, 1 ; impetigo, 1 ; laryngitis, 1 ; malnutrition, 2 ; measles, 2 ; naso-pharyngitis, 2 ; negative, 63 ; nephritis, 1 ; positive swabs, 131 ; rhinitis, 3 ; scarlet fever, 15 ; sore throat, 77 ; tonsillitis, 4 ; whooping cough, 2.

Cases which Proved to be Diphtheria on Observation.—Scarlet fever, 3.

Fatality Rate.—12 cases, or 3·5 per cent. of the clinical cases, were fatal.

Fatal Cases.—Of the 12 deaths, 5 were males and 7 females. The average age was 6 years; the average duration of illness prior to admission was 8 days; and the average residence in hospital was 13·5 days. The average amount of serum given was 57,000 units. 1 case had 220,000 units of serum. 8 of the fatal cases had been ill more than 3 days before being sent to hospital or having antitoxin. In 5 instances the children had been neglected for 10 days.

Operative Treatment.—In 4 cases tracheotomy was performed. 2 recovered and 2 died. The larynx was intubated in 13 instances. 4 of these died. Tracheotomy and intubation were performed in 7 patients, with 1 death. The fatality rate was therefore 29·1 per cent. of the cases operated on.

Antitoxin.—4, or 1·1 per cent. of the cases discharged, received serum before admission to hospital. The average amount given in all clinical cases discharged was 19,200 units. In 34 cases scarlet fever antitoxin was administered with benefit. In the more malignant cases the intravenous route was adopted. 11 children had over 100,000 units given intravenously and intramuscularly. After-effects were noted in 11, or 3·2 per cent., of the 337 clinical cases. The rashes were:—Urticarial, 6; scarlatiniform, 5. Messrs. Parke Davies & Co.'s concentrated serum was used throughout the year.

Bacteriological Cases.—131 cases were bacteriological cases without clinical signs and are not classified as true diphtheria cases. 74 were Schick tested on admission; 42 were negative and 32 positive. In 14 of the 42 Schick negative cases the organism was tested for virulence; 1 was virulent and 13 avirulent. 11 of the 32 Schick positive cases were tested, and 1 only was virulent.

The 63 negative cases of the corrected diagnoses group were cases where nothing was present on the throat and where no positive swab was obtained while in hospital. The majority of those cases had a positive swab before coming into hospital. 55 of the 63 negative cases were Schick tested; 13 were positive and 42 negative.

Of 26 simple sore throat cases, the Schick Test was positive in 3 and negative in 23 instances.

Dick Test.

Diphtheria cases had the Dick Test performed as a routine, and the susceptibles were immunised. Of 522 notified cases, 172 were positive, and 154 were immunised against scarlet fever.

	Age-Periods.											
	1	2	3	4	5	6	7	8	9	10	Over 10	Total.
Positive,	4	10	20	22	22	19	9	15	13	11	27	172
Negative,	6	17	29	24	28	24	23	29	21	18	131	350
Total,	10	27	49	46	50	43	32	44	34	29	158	522

ENTERIC FEVER.

Of 11 cases notified as enteric fever, the diagnosis was revised in 5. 4 others proved to be cases of the disease. Of these 10 cases, 9 recovered and 1 died.

Removal to Hospital was carried out during the first week of illness in 4 cases, or 40 per cent.; during the second week in 4 cases, or 40 per cent.; and during the third week in 2 cases, or 20 per cent.

The Average Day of Disease was 10·2 days, and the average duration of residence in hospital 36·2 days.

The Average Age was 22·5 years.

Sex.—Male, 3; female, 7.

The Fatality Rate was 10 per cent. A female, aged 21 years, died from hypostatic pneumonia after severe intestinal hæmorrhage.

Type of Disease.—5 of the cases were due to B. typhosus and 5 to B. paratyphosus B. 7 were mild, 1 moderate, and 2 severe.

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.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.
First, - -	2	28·5	1	100	—	—	1	100	4	40·0
Second, - -	3	42·8	—	—	1	100	—	—	4	40·0
Third, - -	2	28·5	—	—	—	—	—	—	2	20·0
Total, - -	7	70·0	1	10·0	1	10·0	1	10·0	10	—

Complications. — 1 patient had severe intestinal hæmorrhage, followed by hypostatic pneumonia.

Corrected Diagnoses.—Diarrhœa, 1; myocarditis, 1; negative, 1; positive agglutination reaction, without clinical signs, 2.

Others.—2 notified as pneumonia and 2 as continued fever proved to be cases of enteric fever.

PUERPERAL FEVER.

8 cases were in hospital at the beginning of the year, 111 were admitted, 7 were wrongly diagnosed, and 3 others proved to be cases of puerperal fever. Of these 115 cases, 87 recovered, 22 died, and 6 were in hospital at the end of the year.

Type of Disease.—Mild, 52; moderate, 27; severe, 30.

The Average Age of the patients was 29·2 years; 6 were under 20 years of age, 27 between 21 and 25 years, 26 between 26 and 30 years, 29 between 31 and 35 years, 10 between 36 and 40 years, and 11 over 40 years of age.

The Average Duration of Illness of all cases prior to admission was 6·1 days; of recovered cases, 5·8 days; and of fatal cases, 6·2 days.

The Average Duration of Residence was 30 days.

Attendance at Birth. — Doctor, 8; midwife, 40; doctor and midwife, 46; hospital cases, 14; nil, 1.

The Fatality Rate was 20·1 per cent.

Complications at Birth. — Abortion, 8; cæsarean section, 1; hæmorrhage, 1; induction of labour, 2; instrumental delivery, 33; laparotomy, 1; macerated fœtus, 1; miscarriage, 5; mole, 1; perineal tears, 19; premature, 2; retained placenta, 1; still-birth, 1.

Number of Pregnancy at which disease occurred :—

	No. of Cases.		Instrumental Delivery.	
Pregnancy.	Recovered.	Died.	Recovered.	Died.
1	30	3	16	3
2	10	4	2	2
3	10	3	1	1
4	10	4	2	1
5	6	3	1	—
6	4	1	1	—
7	5	2	2	
8	4	1	—	—
9	2	—	1	—
10	2	—	—	—
11	1	1	—	—
12	1	—	—	—
13	1	—	—	—
15	1	—	—	—
Total, - -	87	22	26	7
	109		33	

Complications during the Fever.—Abscesses, 3; anæmia, 14; cerebral embolism, 1; fistula, 1; hysteria, 1; mastitis, 8; nephritis, 1; pelvic abscess, 1; pelvic cellulitis, 2; pelvic peritonitis, 1; general peritonitis, 3; pleural effusion, 2; pneumonia, 2; pulmonary embolism, 2; thrombosis, 14; umbilical hernia, 1.

Corrected Diagnoses.—Cellulitis, 1; gonorrhœa, 1; negative, 1; phlegmasia, 2; pneumonia, 1; pyelitis, 1.

Others which Proved to be Cases of Puerperal Fever.—Phlegmasia, 1; pleurisy, 1; pneumonia, 1.

Blood Cultures.—Of 100 blood cultures taken only 5 were positive to streptococci.

Treatment.—Shortly after the patient is admitted the parts are examined when any stitches are removed and cultures taken. One intra-uterine douche is given, chiefly with the object of detecting if anything has been left inside the uterus. An injection of glycerine is given. The patient is kept, as far as possible, in the upright position for drainage. With the exception of the initial intra-uterine douche, nothing more in the way of interference is done unless glycerine drainage is being carried out. Reliance is placed on large doses of streptococcal antitoxin. Severe puerperal anæmia is treated with organic arsenic.

ERYSIPELAS.

5 cases were in hospital at the beginning of the year, 60 were admitted, and 7 were wrongly diagnosed. Of these 58 cases, 46 recovered, 6 died, and 6 were in hospital at the end of the year.

Sex.—Male, 22; female, 30.

Type of Disease.—Mild, 19; moderate, 18; severe, 15.

Situation of Disease.—Face, 43; leg, 7; wandering, 2.

The Average Age was 38·4 years; 4 were under 10 years of age, 4 between 11 and 20 years, 7 between 21 and 30 years, 8 between 31 and 40 years, 13 between 41 and 50 years, 10 between 51 and 60 years, 4 between 61 and 70 years, and 2 over 70 years of age.

The Average Day of Disease was 5·3 days, and the average residence 22·7 days.

The Fatality Rate was 11·5 per cent. of the cases discharged.

Complications.—Abscess, 2; cellulitis, 4; folliculitis, 1; hæmorrhagic enteritis, 1; pneumonia, 1; tonsillitis, 1.

Repeated Attacks.—1 patient had had 8 attacks, and another had had 5.

Corrected Diagnoses. — Dermatitis, 1; erythema nodosum, 1; folliculitis, 1; gangrene, 1; herpes, 1; mastoid, 1; nephritis, 1.

Treatment.—5 cases had erysipelas antitoxin and 25 scarlet fever antitoxin.

TUBERCULOSIS.

36 cases were admitted, 5 were wrongly diagnosed, and 9 others proved to be cases of tuberculosis. Of these 40 cases, 28 were discharged improved or well, 11 died, and 1 was in hospital at the end of the year.

The following table shows the age-periods and sexes of the cases discharged :—

Age.	Recovered.		Died.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.
-5 years, - -	3	1	4	1	7	2
- 10 ,, - -	1	3	1	2	2	5
- 15 ,, - -	1	2	—	—	1	2
- 20 ,, - -	5	—	—	1	5	1
- 25 ,, - -	—	3	1	—	1	3
- 30 ,, - -	2	1	—	—	2	1
- 35 ,, - -	—	2	—	—	—	2
- 40 ,, - -	3	—	—	—	3	—
Over 40 ,, - -	—	1	—	1	—	2
	15	13	6	5	21	18

Sex.—Male, 21 ; female, 18.

The Average Age was 17 years, and the average residence was 81·5 days.

Classification of Cases.

Glands, - - -	11	Pulmonary,	8
Bone, - - -	1	Meningeal, - - -	9
Joint, - - -	6	Abdomen, - - -	1
Spine, - - -	3		

Glandular Tuberculosis.—11. Males, 6 ; females, 5.

The average age was 15·6 years, and the average duration of residence, 31·2 days.

10 were cervical glands and 1 axillary glands. Abscesses were opened in 10 and in 1 excised. 1 case had the tonsils removed.

Osseous Tuberculosis.—A female, aged 11 years, had a caries metatarsal bone scraped.

Articular Tuberculosis.—6. Males, 3; females, 3.

The average age was 20·5 years, and the average residence, 52·6 days. The joints affected were:—Hip, 4; ankle, 1; elbow, 1.

Spinal Tuberculosis.—3. 3 males had Psoas abscesses aspirated. The average age was 22 years, and the average residence, 44·6 days. 1 of the cases was resident twice during the year.

Abdominal Tuberculosis.—A female, aged 6 years, notified influenza, died from abdominal tuberculosis with broncho-pneumonia. She was in hospital 18 days.

Meningeal Tuberculosis.—9. Males, 5; females, 4.

The average age was 10 years, and the average residence, 9·2 days. 8 died in hospital and 1 was removed home and died later.

Pulmonary Tuberculosis.—8. Males, 4; females, 4.

The average age was 24 years, and the average residence, 29·3 days. 2 of the cases died from acute appendicitis.

Fatal Cases.—11. Males, 6; females, 5.

The average age was 11·2 years, and the average residence 11·6 days.

Type of Disease.—Abdominal, 1; meningeal, 8; pulmonary, 2.

Corrected Diagnoses.—Cerebral abscess, 1; duodenal ulcer, 1; gonorrhœa, 1; marasmus, 1; sarcoma lung, 1.

Others which Proved on Observation to be Tuberculosis.—Abscess, 1; encephalitis lethargica, 2; influenza, 1; pleural effusion, 1; pneumonia, 4.

PNEUMONIA.

29 cases were in hospital at the beginning of the year; 347 were admitted; 87 were wrongly diagnosed; and 4 others proved to be cases of pneumonia. Of these 293 cases, 197 recovered, 69 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.	
	Males.	Females.	Males.	Females.	Males.	Females.
- 5 years, - -	42	13	17	13	59	26
- 10 „ - -	19	12	2	—	21	12
- 15 „ - -	13	5	1	—	14	5
- 20 „ - -	22	5	2	—	24	5
- 25 „ - -	9	8	3	2	12	10
- 30 „ - -	6	4	2	1	8	5
- 35 „ - -	8	5	3	3	11	8
- 40 „ - -	3	1	3	1	6	2
Over 40 „ - -	17	5	11	5	28	10
	139	58	44	25	183	83

Classification of Disease.—Acute lobar pneumonia, 165; broncho-pneumonia, 78; influenzal peumonia, 14; hypostatic pneumonia, 2; central pneumonia, 2; unresolved pneumonia, 4; convalescent pneumonia, 1.

Type of Disease.—Mild, 50; moderate, 96; severe, 120.

The Situation of the Lesion in the lobar cases was as follows :—Double, 8. Right side—Base, 45; apex, 21; middle, 3; whole, 6. Left side—Base, 74; apex, 7; whole, 1.

The Average Day of Disease of all cases on admission was 6·2 days; of recovered cases, 6·5 days; and of fatal cases, 5·4 days.

The Average Duration of Residence of all cases was 27·3 days, of recovered cases, 34·7 days; and of fatal cases, 7·3 days.

The Fatality Rate was 20·6 per cent. 21 cases were admitted moribund and died within a few hours of admission.

Complications.—33, or 12·4 per cent. of the discharges, had one or more complications. These were:—Albuminuria, 2; convulsions, 1; empyema, 13; enteritis, 1; ischio-rectal abscess, 1; jaundice, 1; nephritis, 1; otitis media, 5; pericarditis, 1; pleural effusion, 2; positive swab, 3; pulmonary abscess, 1; pulmonary thrombosis, 1.

Corrected Diagnoses.—Bronchitis, 45; cellulitis, 1; cerebro-spinal fever, 2; cold, 1; constipation, 3; empyema, 1; enteric fever, 2; enteritis, 2; hyperemesis gravidarum, 1; intestinal toxæmia, 1; mastoiditis, 1; myocarditis, 1; negative, 4; nephritis, 2; pemphigus, 1; parotitis, 1; pericarditis, 2; pleurisy, 2; puerperal fever, 1; pyelitis, 1; serous meningitis, 1; tuberculosis, 4; whooping-cough, 7.

Cases which Proved to be Pneumonia on observation were admitted to hospital as:—Meningitis, 1; puerperal fever, 1; scarlet fever, 1; septicæmia, 1.

Measles.

1 case was in hospital at the beginning of the year. 4 were admitted, and in 2 the diagnosis was revised, and other 11 cases proved to be measles. Those 14 cases all recovered.

Sex.—Male, 4; female, 10.

The Average Day of Disease was 4 days; the average residence, 18·2 days; and the average age, 7 years.

Type.—All were classified mild.

Complications.—Nil.

Corrected Diagnoses.—Rubella, 1; chickenpox, 1.

Cases which Proved to be Measles on observation were admitted to hospital as:—Diphtheria, 2; scarlet fever, 9.

Whooping-Cough.

15 cases were admitted and other 12 proved to be cases of whooping-cough. Of the 27 cases, 21 recovered and 6 were fatal.

Sex.—Male, 9; female, 18.

The Average Day of Disease was indefinite, as many had been ill for several weeks before admission.

The Average Residence was 44·2 days, and the average age, 2·8 years.

Type.—Mild, 11; moderate, 5; severe, 11.

Complications.—12 of the cases developed the following complications:—Abscess, 1; broncho-pneumonia, 4; bronchitis, 1; diphtheria, 1; lung abscess, 1; marasmus, 1; otitis media, 1; periostitis, 1; purpura, 1.

Others which Proved to be Cases of Whooping-Cough.—Diphtheria, 2; meningitis, 1; pneumonia, 7; scarlet fever, 2.

Meningitis.

Cerebro-Spinal Fever.—Of 10 proved cases, 6 recovered and 4 died. 4 were males and 6 females.

The average age was 8·2 years; the average day of disease, 7·4 days; and the average duration of residence, 44·4 days.

Type of Case.—Mild, 1; moderate, 1; severe, 8.

Pneumococcal Meningitis.—A female, aged 15 years, had been ill 10 days before admission, and died 3 days after treatment was commenced.

Serous Meningitis.—A female, aged 20 years, proved to be a case of serous meningitis. She recovered in 42 days.

Tinea Tonsurans.

14 cases were under treatment for long-standing ringworm of the head. 7 were males and 7 females.

Thallium acetate was used in 13 cases. The result in all cases was perfect. All were completely epilated before discharge, and no after-effects were noted during the stay in hospital.

Tetanus.

(1) A female, aged 53 years, was admitted in a comatose condition, with a history of continuous spasms of 24 hours' duration. Seven days before the onset of symptoms a thorn pierced the forehead. In spite of 143,000 units of antitetanic serum, she died within 24 hours of admission.

(2) A male, aged 9 years, cut his foot, apparently 12 days before the onset of symptoms. This patient died in a tetanic convulsion a few hours after admission. He had 56,000 units of antitoxin.

Venereal Diseases.

At the beginning of the year 6 cases were in residence. Throughout the year 111 cases were admitted for indoor treatment. Of these, 20 were wrongly diagnosed; and 2 others proved to be cases of venereal disease. Of 99 cases, 88 were discharged in varying stages of improvement, 2 died, and 9 were in hospital at the end of the year.

Sex.—Male, 54; female, 36.

Age.—1 to 10 years, 10; 11 to 20 years, 14; 21 to 30 years, 38; 31 to 40 years, 14; 41 to 50 years, 6; over 50 years, 8.

The average age of the proved cases was 26·7 years, and the average duration of residence, 27·3 days.

The indoor cases were:—Gonorrhœa, 49; syphilis, 28; gonorrhœa and syphilis, 3; ophthalmia neonatorum, 8; paraphimosis, 1; balanitis, 1.

Corrected Diagnoses. — Aphasia, 1; ataxia, 1; blepharitis, 1; marasmus, 2; negative, 1; simple ophthalmia, 13; vaginitis, 1.

Others which Proved to be Cases of Venereal Disease were:—Puerperal fever, 1; tuberculosis, 1.

Complications and Reasons for Indoor Treatment.—Abscess, 2; balanitis, 3; choroiditis, 1; enteritis, 1; epididymitis, 6; epithelioma, 1; fibroma, 1; keratitis, 2; mastitis, 1; phimosis, 11; sinus, 1; stricture, 2; warts, 3.

Ophthalmia Neonatorum.—Of 21 cases of notified ophthalmia discharged, 13 were simple and 8 due to gonococci. Of the 8 true cases, 2 were mild, 4 moderate, and 2 severe.

A male, aged 25 years, infected his own eyes. One eye was totally blind and the other resulted in partial loss of vision. This case left hospital before treatment was complete.

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. 287 new cases were registered—212 males and 75 females :—

VENEREAL DISEASES, 1929.

	Syphilis.	Gonorrhœa.	Syphilis and Gonorrhœa.	Soft Sore.	Others V. D.	Others Non V. D.	Total.	Indoor Cases.	Indoor Days.	Outdoor Attendances.
Middle Ward, -	69	86	4	1	1	55	216	66	1,550	1,910
Upper Ward, -	4	3	—	—	1	1	9	3	123	90
Lower Ward, -	2	—	—	—	—	1	3	—	—	46
Airdrie, - -	—	5	—	—	—	2	7	4	228	15
Coatbridge, - -	2	2	—	—	1	—	5	4	115	2
Hamilton, - -	10	20	1	—	2	4	37	6	160	446
Lanark, - -	6	3	—	—	—	1	10	1	15	77
Motherwell and Wishaw, -	51	40	3	—	2	23	119	26	572	1,274
Dunbartonshire, -	1	—	—	—	—	—	1	—	—	3
Total, - -	145	159	8	1	7	87	407	110	2,763	3,863

The following is a synopsis of the venereal diseases work since 1922 :—

	1922		1923		1924		1925		1926		1927		1928		1929	
	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.
w Cases :—	214	79	171	45	163	55	191	68	158	52	234	76	231	95	212	75
yphilis, - -	49	36	48	15	34	19	35	24	20	8	24	16	41	16	62	22
Gonorrhœa, -	75	14	68	10	76	21	108	32	78	27	126	39	106	43	83	28
yphilis and Gonorrhœa, -	4	1	4	5	1	1	—	2	—	2	2	3	4	4	3	2
oft Sore, -	2	—	9	—	—	—	—	—	—	—	—	—	—	—	1	—
thers V.D., -	5	1	7	—	5	—	6	1	2	—	7	—	14	2	6	—
thers Non V.D.,	79	27	35	15	47	14	42	9	58	15	75	18	66	30	57	23
es treated during Year :—																
yphilis, - -	176	91	162	63	123	56	88	43	88	32	71	44	124	52	104	41
Gonorrhœa, -	123	16	100	13	99	22	137	48	106	42	157	48	160	55	120	39
yphilis and Gonorrhœa, -	24	6	24	10	12	5	6	4	4	3	4	3	11	4	5	3
oft Sore, -	4	—	8	—	2	—	—	—	1	—	—	—	—	—	1	—
thers V.D., -	7	1	8	—	8	—	4	—	6	—	8	—	28	2	7	—
thers Non V.D.,	19	3	48	20	48	17	51	12	60	15	83	18	66	30	64	23
utdoor Attendances, - -	3536	706	3270	599	3174	411	5531	1167	3070	747	4518	837	3673	608	2973	890
ndoor Cases, -	46	44	50	42	41	32	53	61	44	47	55	57	79	78	67	43
ndoor Days, -	1030	1767	1475	1264	1044	1110	1702	1846	1268	1399	1404	2380	1783	1786	1432	1331
alvarsan Substitute Injections, - -	1092	664	1358	460	594	240	910	407	812	401	926	650	1024	379	1489	554
o. of Operations	10	1	14	1	10	—	8	1	6	—	12	2	15	1	17	2
,, Wassermann,	570	224	424	131	269	91	172	64	165	69	198	127	294	81	257	117
, Smears Spirochætes,	18	—	19	—	7	—	6	—	1	—	3	—	4	—	2	—
,, Gonococci,	163	36	171	35	138	53	126	71	51	39	144	86	115	77	83	63

Note.—Included under Salvarsan Substitute Injections are 993 Bismuth Injections.

Miscellaneous Cases Discharged during 1929.

	Rec.	Died.		Rec.	Died.
Appendicitis, ...	2	—	Laryngitis, ...	1	—
Arterio-sclerosis, ...	1	—	Leukæmia, ...	1	—
Bronchiectasis, ...	2	—	Ludwig's angina, ...	—	1
Bronchitis, ...	4	—	Marasmus, ...	—	2
Cancer bowel, ...	1	—	Mastitis, ...	1	—
Cardiac disease, ...	1	—	Mastoiditis, ...	2	—
Catarrhal jaundice, ...	2	—	Minor ailments, ...	30	—
Cellulitis, ...	—	1	Myocarditis and nephritis,	1	5
Cerebral abscess, ...	—	2	Myositis, ...	1	—
Cerebral hæmorrhage, ...	—	1	Negative, ...	4	—
Chickenpox, ...	4	—	Nephritis, ...	—	2
Cold, ...	1	—	Osteo-arthritis, ...	—	1
Colic, ...	1	—	Osteomyelitis, ...	—	2
Conjunctivitis, ...	2	—	Pelvic cellulitis, ...	2	—
Dermatitis, ...	4	—	Pemphigus, ...	—	1
Eczema, ...	1	—	Pericarditis, ...	—	1
Empyema, ...	11	3	Pleural effusion, ...	2	—
Encephalitis lethargica,	3	—	Rhinitis, ...	6	—
Enteritis, ...	3	3	Sarcoma, ...	—	1
Fibro-sarcoma, ...	1	—	Scabies, ...	7	—
Gangrene, ...	—	1	Septicæmia, ...	—	1
Gangrenous dermatitis,	—	1	Sore throat, ...	37	—
Hæmorrhoids, ...	1	—	Tonsillitis, ...	3	—
Hyperemesis gravidarum,	—	1	Tonsils (large), ...	1	—
Impetigo, ...	4	—	Trachoma, ...	1	—
Influenza, ...	9	1	X-ray examination, ...	1	—
Injury nose, ...	1	—			

Electrical Department.

During the year 706 cases were photographed. These were:—Chest, 568; spine, 32; chest and spine, 4; pelvis, 9; abdomen, 6; joints, 45; bones, 21; fractures, 15; skull, 2; kidneys, 1; barium meals, 3.

The sources from which the 706 cases came were:—County Hospital, Motherwell, 132; Bellshill Dispensary, 93; Blantyre Dispensary, 59; Cambuslang Dispensary, 75; Larkhall Dispensary, 25; Shotts Dispensary, 51; Bellshill Hospital, 3; Calderbank House, 1; Lightburn Hospital, 14; Roadmeetings Hospital, 16; Longriggend Sanatorium, 75; Shotts Sanatorium, 67; Lower Ward, 17; Middle Ward (others), 40; Upper Ward, 27; Hamilton Burgh, 4; Doctors, 5; V.D. Centres, 2.

Operations.

During the year the following operations were performed in the hospital :—

Disease.		Operation.	Recovered.	Died.	Total.
Tuberculosis	Glands	Excision or scraping	12	—	12
	Bone	Scraping sinuses, &c.	4	—	4
	Spine	Aspiration	2	—	2
	Genito-urinary	Dilating stricture	1	—	1
Diphtheria	Laryngeal stenosis	Tracheotomy	2	2	4
		Intubation	9	4	13
		Intubation and tracheotomy	6	1	7
	Carrier	Tonsillectomy	23	—	23
	Abscess	Opening	2	—	2
Scarlet Fever	Mastoiditis	Mastoidectomy	6	—	6
	Glands	Opening abscess	7	—	7
Puerperal Fever	Mastitis	Opening	8	—	8
	Pelvic Cellulitis	Opening	1	—	1
	Abscess	Opening	2	—	2
	Strangulated hernia	Herniotomy	—	1	1
	Peritonitis	Laparotomy	—	1	1
Venereal Diseases	Phimosis	Circumcision	10	—	10
	Warts	Excision	3	—	3
	Abscess	Opening	2	—	2
	Sinuses	Scraping	1	—	1
	Fibroma	Excision	1	—	1
	Caries teeth	Extraction	1	—	1
	Cancer penis	Amputation	1	—	1
Pneumonia	Empyema	Resection of rib	4	2	6
Others	Cellulitis	Incision	1	1	2
	Abscesses	Opening	4	—	4
	Empyema	Resection of rib	17	2	19
	Osteomyelitis	Opening	1	2	3
	Whitlow	Opening	1	—	1
	Mastitis	Opening	1	—	1
	Mastoiditis	Mastoidectomy	2	—	2
	Ulceration nævus	Excision	1	—	1
	Fibro-sarcoma	Excision	1	—	1
	Gangrenous dermatitis	Opening abscess	—	1	1
	Hæmorrhoids	Excision	1	—	1
	Appendicitis	Laparotomy	1	1	2
	Myositis	Opening	1	—	1
	Bronchiectasis	Lipiodol injection	1	1	2
	Antrum disease	Opening	1	—	1
	Tonsils	Tonsillectomy	2	—	2
			144	19	163

The following operations and consultations were undertaken by the consulting staffs :—

Dr. Maclennan, Surgeon—Amputation penis, 1; excision of hæmorrhoids, 1; laparotomy, 2; opening myositis, 1; consultation, 1.

Dr. Adam, Otologist—Mastoidectomy, 3; tonsillectomy, 21; lipiodol injection, 2; opening antrum, 1.

Dr. Cameron, Gynæcologist—Herniotomy, 1; laparotomy, 1; consultation, 1.

Dr. Harrington, Physician—Consultation, 1.

Dr. Brown, Dermatologist—Consultation, 1.

The Staff.

On 31st December, 1929, the indoor staff comprised 1 physician-superintendent, 2 assistant medical officers, 1 matron, 8 sisters, 62 probationers, and 36 maids.

The outdoor staff consisted of 1 engineer, 3 firemen, 1 gardener, 5 assistant gardeners, 2 chauffeurs, 1 V.D. attendant, 1 X-ray attendant, 2 clerks, and 1 storekeeper.

The total staff numbered 127.

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.

20 probationers passed the Final Examination and were granted the General Nursing Council Certificate for Fever Nursing, whilst 13 others completed the Preliminary Examination under this scheme. 20 probationers were awarded cookery certificates by the Education Authority.

Staff Illnesses.—47 probationers and 29 maids were warded for the following illnesses: — Abscesses, 3; albuminuria, 2; bursitis, 1; catarrhal jaundice, 2; cold, 1; conjunctivitis, 2; constipation, 1; epistaxis, 1; influenza, 8; injury, nose, 1; intestinal colic, 1; laryngitis, 1; lumbago, 1; malaise, 1; neuralgia, 1; negative, 1; pneumonia (influenzal), 1; rheumatism, 2; scarlet fever, 1; septic finger, 2; septic toe, 1; sore throat, 37; sprain (ankle), 1; tonsillitis, 2; vaccinia, 1.

The sick staff lost 1,149 working days.

Inoculations.—10 probationers were vaccinated with T.A.B. vaccine against the enteric group of diseases.

Immunisation.—93 of the staff had the Schick Test performed. Of 33 positives, 30 were immunised.

Of 87 Dick Tests, 14 reacted and 11 of these were immunised.

In the early part of the year the whole staff were vaccinated against smallpox.

AMBULANCE WORK.

	Admissions.	Discharges.	Tuberculosis.	Disinfections.	Others.	Total.
Patients, -	2,044	823	508	—	7	3,382
Journeys, -	1,744	259	152	36	32	2,223
Mileages, -	26,193	7,535	5,709	471	664	40,572

Statistics.

Table I.—Admissions (as notified) and Discharges during 1929, with the Numbers in Hospital at the Beginning and End of the Year.

Disease.	In Hospital, 1st January, 1929.		Admitted.		Discharged.				Remaining in Hospital 31st Dec., 1929.	
					Recovered.		Died.			
	M.	F.	M.	F.	M	F.	M	F.	M.	F.
Scarlet Fever, - -	43	48	323	409	335	422	3	1	28	34
Diphtheria, - - -	16	26	274	369	267	367	5	8	18	20
Enteric Fever, - -	—	—	4	7	4	6	—	1	—	—
Erysipelas, - - -	1	4	28	32	23	29	4	3	2	4
Puerperal Fever, - -	—	8	—	111	—	93	—	20	—	6
Tuberculosis, - -	—	—	19	17	15	11	4	5	—	1
Measles, - - -	—	1	1	3	1	4	—	—	—	—
Whooping Cough, -	—	—	4	11	4	7	—	4	—	—
Venereal Disease, - -	4	2	61	50	61	43	2	2	2	7
Pneumonia, - - -	21	8	232	115	183	87	51	28	19	8
Others, - - - -	1	4	83	140	63	124	14	14	7	6
	86	101	1,029	1,264	956	1,193	83	86	76	86
	187		2,293		2,149		169		162	
	2,480				2,480					

Table II.—Admissions and Discharges in each Month of the Year 1929.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Admitted, - -	287	187	219	191	200	184	148	150	158	187	162	220	2,293
Discharged—													
Recovered, -	185	208	198	166	201	208	171	163	125	168	176	180	2,149
Died, - -	41	17	17	18	20	5	8	8	3	8	15	9	169

Table III.—Age and Sex of Patients Discharged during the Year 1929, 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,	1	—	—	—	—	—	1	—	—
-2,	7	—	—	6	—	—	13	—	—
-3,	17	—	—	22	—	—	39	—	—
-4,	33	—	—	23	—	—	56	—	—
-5,	23	—	—	30	—	—	53	—	—
-6,	27	—	—	40	—	—	67	—	—
-7,	27	—	—	35	—	—	62	—	—
-8,	35	—	—	26	—	—	61	—	—
-9,	18	—	—	39	—	—	57	—	—
-10,	27	—	—	29	—	—	56	—	—
-15,	36	—	—	66	—	—	102	—	—
-20,	23	1	4·1	31	1	3·1	54	2	3·5
Over 20,	21	—	—	34	—	—	55	—	—
Total, - -	295	1	0·3	381	1	0·2	676	2	0·2

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,	2	—	—	1	—	—	3	—	—
-2,	3	—	—	3	1	25·0	6	1	14·2
-3,	13	3	18·7	7	1	12·5	20	4	16·6
-4,	10	—	—	13	1	7·1	23	1	4·1
-5,	10	—	—	22	1	4·3	32	1	3·1
-6,	17	—	—	17	1	5·5	34	1	2·8
-7,	17	—	—	11	1	8·3	28	1	3·4
-8,	19	—	—	11	1	8·3	30	1	3·2
-9,	6	—	—	22	—	—	28	—	—
-10,	9	—	—	9	—	—	18	—	—
-20,	29	2	6·4	49	—	—	78	2	2·5
Over 20,	5	—	—	20	—	—	25	—	—
Total,	140	5	3·4	185	7	3·6	325	12	3·5

TABLE III. (*contd.*)—ENTERIC FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-5.	—	—	—	—	—	—	—	—	—
-10,	1	—	—	2	—	—	3	—	—
-15,	1	—	—	—	—	—	1	—	—
-20,	—	—	—	—	—	—	—	—	—
-25,	1	—	—	1	—	—	2	—	—
-30,	—	—	—	1	1	50·0	1	1	50·0
-35,	—	—	—	1	—	—	1	—	—
-40,	—	—	—	—	—	—	—	—	—
-45,	—	—	—	—	—	—	—	—	—
-50,	—	—	—	1	—	—	1	—	—
Over 50,	—	—	—	—	—	—	—	—	—
Total,	3	—	—	6	1	14·2	9	1	10·0

Table IV.—The Stage of the Disease in which Patients Discharged in 1929, 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, - -	27	203	196	120	44	26	8	624	30	14	10	678
Diphtheria, - - -	23	95	76	69	28	15	14	320	13	2	2	337
Enteric Fever, - -	—	—	—	—	1	2	1	4	4	2	—	10

Table V.—Complications Observed in Patients Discharged during 1929.

Scarlet Fever.	Suppurative Cervical Adenitis.	Non-Suppurative Cervical Adenitis.	Otitis Media Purulenta.	Rhinorrhœa.	Cardiac Complications.	Nephritis.	Arthritis	Mastoiditis.	Pulmonary Complications.	Skin Conditions.
In 676 Recovered Cases,	3	80	51	93	13	10	12	6	4	9
In 2 Fatal Cases, -	—	—	—	—	1	—	—	—	—	—
In 678 Cases, - -	3	80	51	93	14	10	12	6	4	9
Percentage, - -	0·4	11·7	7·5	13·7	2·0	1·4	1·7	0·8	0·5	1·3

Diphtheria.	Adenitis.	Rhinitis.	Otitis Media.	Cardiac Involvements.	Pneumonia.	Paralysis, all Forms.	Arrhythmia.	Nephritis.	Albuminuria.	Serum Rashes.
In 325 Recovered Cases, -	3	2	3	2	2	16	4	—	2	11
In 12 Fatal Cases, - -	2	—	1	8	4	2	—	2	2	—
In 337 Cases, - - -	5	2	4	10	6	18	4	2	4	11
Percentage, - - -	1·4	0·5	1·2	2·9	1·7	5·3	1·2	0·5	1·2	3 2

TABLE VI.—ADMISSIONS (AS NOTIFIED) SINCE OPENING OF HOSPITAL.

Year.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Measles.	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis.	Cerebro-Spinal Fever.	Venereal 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
	3725	21215	7201	714	829	348	476	1457	419	1524	403	1666	2362	23,493

Table VII.—Discharges since Opening of Hospital.

Years.	Enteric Fever.		Scarlet Fever.		Diphtheria.		Erysipelas.		Puerperal Fever.		Measles.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Cerebro-Spinal Fever		Venereal Diseases.		Pneumonia.		Tines.		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	615	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	—	115	7	1,141	62
1912 ...	58	10	748	22	136	15	11	—	3	5	6	—	2	2	4	—	—	1	—	—	—	—	76	—	226	5	1,270	60
1913 ...	87	5	724	15	150	13	10	1	2	4	1	1	11	3	41	5	1	—	—	—	—	—	61	—	228	8	1,316	55
1914 ...	75	10	833	27	228	38	15	4	9	2	2	1	5	4	37	4	1	1	—	—	—	—	27	—	205	11	1,437	102
1915 ...	82	10	641	20	214	29	18	6	9	1	5	3	15	5	47	4	11	9	—	—	—	—	36	—	148	10	1,226	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	—	111	11	1,196	90
1918 ...	42	15	269	11	135	18	11	4	3	3	29	7	7	2	83	10	1	4	231	—	—	—	13	—	334	35	1,158	109
1919 ...	82	11	450	12	180	14	13	—	15	10	27	4	7	4	94	3	6	10	104	1	—	—	6	—	301	38	1,285	107
1920 ...	39	3	985	10	191	19	24	4	25	11	16	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	800	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
Total ...	2,887	347	19,271	450	4,866	485	594	77	543	234	386	60	385	85	1,333	148	94	196	1,308	28	922	305	414	—	6,334	420	39,337	2,855
Fatality per cent.	10·7		2·2		9·0		11·4		30·1		13·4		18·0		9·9		67·5		2·0		24·8		—		6·2		7·2	

COUNTY OF LANARK

DISTRICT OF THE LOWER WARD

REPORTS

BY THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SANITARY INSPECTOR

1929

Medical Officer of Health - -	County Offices, Hamilton
Assistant Medical Officer of Health	County Buildings
Sanitary Inspector - - -	149 Ingram Street, Glasgow

STAFF

Medical Officer of Health

J. HUME PATTERSON, F.R.F.P.S.(Glas.), D.P.H.

Assistant M.O.H. and Tuberculosis Officer

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

Sanitary Inspector

JOHN B. PHILIP

Assistant Sanitary Inspector

THOMAS B. POLLOCK

(Certificated Meat Inspector)

Building, Housing, and Town Planning Inspector

CECIL BERGMAN.

Nurse Health Visitors—3

COUNTY OF LANARK.

DISTRICT OF THE LOWER WARD.

(Area, 21,101 Acres.)

Report by the Medical Officer of Health

For the Year 1929.

Vital Statistics.

The **Population** at the middle of the year 1929 has been estimated at 34,000. The population of the various Parishes is given in Table B.

The number of *inhabited* houses, according to the Valuation Roll, amounts to 7,111, while there were 63 *not inhabited*.

Statistical Tables.—Table A shows the birth and death-rates per thousand of the population and the infantile deaths per thousand births for the decennial periods, 1891-1900, 1901-10, and 1911-20, as well as those for each year since 1921.

Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause.

Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the District, after correction for transfers, amounted to 595—males, 294; females, 301—giving a birth-rate of 17·5 per thousand of the population, compared with 18·7 in the year 1928.

The number of *illegimate births* registered in the District, after correction for transfers, amounted to 26—males, 17; females, 9—giving an illegitimate rate of 4·4 per hundred total births, compared with 3·8 in the year 1928.

The **Deaths** registered in the district, after correction for transfers, amounted to 431, giving a death-rate of 12·7 per thousand of the population, compared with 11·1 in the previous year.

Deaths in Relation to Age.—The deaths are here arranged in recognised age periods and the percentage proportion of deaths at each age period is given :—

Infant Period, -	Under 1 year,	40 deaths or	9·3	per cent.
Under School Age,	1-5 years,	27 ,,	6·3	,,
School Age, - -	5-15 ,,	8 ,,	1·9	,,
Adolescent, - -	15-25 ,,	23 ,,	5·3	,,
Early Mature Period,	25-45 ,,	50 ,,	11·6	,,
Late do.	45-65 ,,	99 ,,	22·9	,,
Post do.	65 years and upwards, -	184 ,,	42·7	,,

Deaths due to Notifiable Infectious Disease.—The deaths due to notifiable diseases numbered 66, made up as follows :—Tuberculosis, 33 (pulmonary, 28; meningeal, 3; and other forms, 2); pneumonia (all forms), 27; cerebro-spinal fever, 2; encephalitis lethargica, 1; puerperal sepsis, 1; erysipelas, 1; bacillary dysentery, 1.

The deaths due to non-notifiable diseases amounted to 16—whooping-cough, 11; measles, 2; diarrhœa, 3.

Respiratory Diseases.—The deaths during the year numbered 107, which includes those from pulmonary tuberculosis, and the following statistics show the deaths and death-rates per thousand of the population of the various forms for the past three years, and for the three quinquennial periods, 1911-15, 1916-20, and 1921-25 :—

	Pneumonia.		Bronchitis.		Influenza.		Pulmonary Tuberculosis.		Other Respiratory Diseases.	
Year.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.
Average. 1911-15,	45	1·10	32	0·78	3	0·06	28	0·68	4	0·09
Average. 1916-20,	41	1·38	23	0·76	5	0·16	22	0·73	6	0·18
Average. 1921-25,	25	0·74	13	0·4	14	0·4	18	0·58	2	0·05
1926, -	21	0·67	13	0·4	20	0·6	21	0·67	5	0·15
1927, -	20	0·66	17	0·56	8	0·26	16	0·53	1	0·03
1928,	37	1·1	9	0·27	8	0·24	24	0·72	3	0·09
1929, -	27	0·79	17	0·5	29	0·85	28	0·82	6	0·17

TABLE B.—LOWER WARD.—Year 1929.—Population, Births, and Deaths in each Registration District, with Deaths classified according to cause.

| Registration District. | Estimated Population, 1929. | Births. | Typhoid Fever. | Smallpox. | Measles. | Scarlet Fever. | Whooping Cough. | Diphtheria. | Influenza. | Cerebro-Spinal Fever. | Erysipelas. | Encephalitis Lethargica. | Parotitis. | Malaria. | Bacillary Dysentery. | Pulmonary Tuberculosis. | Meningeal Tuberculosis. | Abdominal Tuberculosis. | Other Tuberculosis. | Septicæmia and Pyæmia. | Rheumatic Fever. | Malignant Diseases. | Meningitis (simple). | Cerebral Hæmorrhage. | Other Nervous Diseases. | Organic Heart Diseases. | Other Circulatory Diseases. | Bronchitis. | Pneumonia (all forms). | Other Respiratory Diseases. | Diabetes. | Pernicious Anæmia. | Diseases of Ductless Glands. | Appendicitis. Typhlitis. | Liver Diseases (not Malignant). | Other Digestive Diseases. | Nephritis, Bright's Disease. | Dis. of Genito-Urinary System. | Dis. of Female Genital Organs. | Puerperal Sepsis. | Dis. and Acc. of Pregnancy, &c. | Congenital Hydrocephalus. | Congenital Heart. | Congenital Malformations. | Infantile Convulsions. | Diarrhœa (under 2 years). | Premature Birth. | Injury at Birth. | Atrophy, Debility, & Marasmus. | Atelectasis. | Suffocation (Overlying). | Rickets. | Other Dis. of Early Infancy. | Syphilis. | Violence. | Suicide. | Other Defined Diseases. | Ill-Defined Diseases. |
|---|---|---

TABLE C.—LOWER WARD.—Year 1929.—Deaths classified according to cause and age periods.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Net Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																			
					Weeks.					Months.						Years.								
					1	1-2	2-3	3-4	Total -4	1-3	3-6	6-9	9-12	Total -12	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	75 & over
Typhoid Fever,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Smallpox,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles,	2	—	—	2	—	—	—	—	—	1	—	—	1	2	—	—	—	—	—	—	—	—	—	—
Scarlet Fever,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-Cough,	11	—	—	11	—	—	—	—	—	1	—	—	—	1	10	—	—	—	—	—	—	—	—	—
Diphtheria,	4	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Influenza,	34	4	9	29	—	—	—	—	—	1	—	1	3	5	2	1	—	1	2	1	3	2	6	6
Cerebro-Spinal Fever,	2	—	—	2	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—
Erysipelas,	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Encephalitis Lethargica,	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Bacillary Dysentery,	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Malaria,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis,	34	1	7	28	—	—	—	—	—	—	—	—	—	—	—	—	1	8	6	4	5	2	1	1
Meningeal ,,	2	1	—	3	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	—	—
Abdominal ,,	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other ,,	2	1	1	2	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—
Septicæmia and Pyæmia,	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Rheumatic Fever,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malignant Diseases,	40	14	6	48	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	2	5	15	15	7
Meningitis (Simple),	1	—	—	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	3	10	11	15
Cerebral Hæmorrhage,	31	8	—	39	—	—	—	—	—	—	—	—	—	—	—	1	2	2	1	—	—	2	1	3
Other Nervous Diseases,	33	4	25	12	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	3	1	9	15	13
Organic Heart Diseases,	36	9	2	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	2
Other Circulatory Diseases,	4	3	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	10	4
Bronchitis,	17	1	1	17	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1	1	—	2
Pneumonia (All Forms),	50	3	26	27	—	—	—	—	—	1	—	1	—	2	5	—	—	2	1	4	2	7	3	1
Other Respiratory Diseases,	4	2	—	6	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1	1	—	2
Diabetes,	3	2	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	—	1
Pernicious Anæmia,	4	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	1	—
Diseases of Ductless Glands,	2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—
Appendicitis, Typhlitis,	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—
Liver Diseases (not malignant),	1	3	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	—
Other Digestive Diseases,	10	4	3	11	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	3	1	4	1
Nephritis, Bright's Disease,	8	3	1	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	2	2	2	1
Dis. of Genito-Urinary System,	1	2	—	3	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	—	—
Dis. of Female Genital Organs,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Sepsis,	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Dis. and Acc. of Pregnancy, &c.,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Hydrocephalus,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Heart,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congenital Malformations,	3	—	—	3	—	2	—	—	2	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—
Infantile Convulsions,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diarrhœa (under 2 years),	3	—	—	3	—	—	—	—	—	—	1	1	—	2	1	—	—	—	—	—	—	—	—	—
Premature Birth,	6	2	—	8	4	1	2	1	8	—	—	—	—	8	—	—	—	—	—	—	—	—	—	—
Injury at Birth,	2	1	—	3	2	—	—	1	3	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—
Atrophy, Debility, & Marasmus,	11	2	—	13	7	—	2	—	9	2	2	—	—	13	—	—	—	—	—	—	—	—	—	—
Atelectasis,	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Suffocation—Overlying,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of early Infancy,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis,	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Violence,	22	9	9	22	—	—	—	—	—	—	—	—	—	—	—	—	—	1	5	3	5	1	3	4
Suicide,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Defined Diseases,	50	5	13	42	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	1	—	9	31
Ill-Defined Diseases,	13	2	1	14	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	2	—	2	7	2
TOTAL	454	90	113	431	14	3	4	2	23	6	3	3	5	40	27	5	3	23	23	27	35	64	90	94

Influenza.—In accordance with the method of classification adopted by the Register-General since 1st January, 1921, 29 deaths were ascribed to influenza. The diseases complicating these deaths were as follows:—Pneumonia, 16; cardiac failure, 2; meningitis, 2; bronchitis, 5; marasmus, 1; senility, 1. In 2 instances influenza was the sole cause stated.

Malignant Diseases.—Deaths falling under this heading numbered 48—males, 23; females, 25. The type of disease was—carcinoma, 42; and other forms, 6. The disease affected some portion of the gastro-intestinal tract in 26 cases; the genito-urinary tract, 8 cases; others, 14.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1000 OF THE POPULATION. INFANTILE DEATHS PER 1000 BIRTHS.

Year. Average.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants Deaths.	Under 1 year Death-rate.
1891 to 1900	1,200	32·9	577	15·9	150	125·2
Average. 1901 to 1910	1,576	33·4	683	14·4	174	110·8
Average. 1911 to 1920 *	869	24·1	428	12·2	88	98·2
1921	672	22·4	294	9·8	60	89·3
1922	643	21·2	345	11·4	48	74·6
1923	664	21·08	320	10·1	48	72·3
1924	625	19·17	331	10·1	48	76·8
1925	649	19·6	339	10·2	52	80·1
1926*	591	19·06	353	11·3	39	65·9
1927	567	18·9	308	10·3	46	81·1
1928	623	18·7	372	11·1	59	94·7
1929	595	17·5	431	12·6	40	67·2

*By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913, and again by the Glasgow Boundaries Act, 1926, a further annexation of 3,542 acres with a population of 4,350 took place which affected the statistics for the year 1926.

PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (*a*) under the Notification Act; (*b*) by adoption under the Notification Act; and (*c*) by order of the Scottish Board of Health; and Group II, not compulsorily notifiable diseases. The diseases included in these groups are as follows:—

GROUP I.

(*a*)	(*b*)	(*c*)
Smallpox.	August, 1906.	1st August, 1912.
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	24th October, 1912.	1st July, 1914.
Typhus Fever.	Acute Poliomyelitis.	All forms of Tuberculosis.
Enteric Fever.	Tetanus.	1st November, 1918.
Puerperal Fever.	Anthrax.	Ophthalmia Neonatorum.
Erysipelas.	Glanders.	1st August, 1919.
	Actinomycosis.	Malaria.
		Dysentery.
		Trench Fever.
		Acute Primary Pneumonia.
		Acute Influenzal Pneumonia.
		26th December, 1924.
		Infective Jaundice.
		21st December, 1925.
		Infantile Paralysis.
		Polio-encephalitis.
		Encephalitis Lethargica.
		25th March, 1927.
		Chickenpox.
		1st October, 1929.
		Puerperal Pyrexia.

GROUP II.

Measles.	Mumps.	Ringworm.
German Measles.	Whooping Cough.	Scabies.

Table D shows the number of cases of notifiable infectious disease occurring in each parish during the year, and in the following paragraphs the prevalence and distribution of each disease is summarised.

All the outbreaks were carefully inquired into, and the usual recognised methods of investigation, isolation, and disinfection were carried out to control the spread of the disease.

TABLE D.—Number of Cases of Notifiable Infectious Disease recognised in each Parish during 1929.

Parish.	Diphtheria.	Scarlet Fever.	Puerperal Fever.	Puerperal Pyrexia	Erysipelas.	Ophthalmia Neonatorum.	Acute Primary Pneumonia.	Influenzal Pneumonia.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Encephalitis Lethargica.	Cerebro-spinal Meningitis.	Chickenpox.	Enteric Fever.	Continued Fever.	Tetanus.	Totals.
Glasgow (late Barony),	19	16	2	—	5	2	23	3	14	3	1	—	38	—	—	—	126
Govan,	40	67	7	1	15	6	42	27	26	12	1	4	104	—	1	1	354
Pollokshaws,	3	21	1	—	4	1	23	4	14	4	—	—	49	—	—	—	124
Rutherglen,	2	—	—	—	—	—	—	2	1	—	—	—	—	—	—	—	5
Carmunnock,																	
	64	104	10	1	24	9	88	36	55	19	2	4	191	—	1	1	609

The number of visits of enquiry made by the Sanitary Inspectors amounted to 548; intimations to parents and school teachers, 651; and 244 cases were removed to hospital. 203 apartments, 196 lots of bedding and clothing were disinfected, while 7 lots of bed and bedding were removed for disinfection.

In addition to the visits to mothers and babies and to tuberculous patients, which constitute their principal duties, the Nurse Health Visitors also visit cases of certain infectious disease, both notifiable and non-notifiable, and give advice in methods of nursing and carrying out of treatment. During the year 407 such visits were made, and the following summary shows the more important diseases for which these visits were made:—

Pneumonia,	133	Influenza,	64
Impetigo,	63	Ophthalmia Neonatorum,	35
Scabies,	27	Puerperal Fever,	10
Whooping Cough,	54	Eczema	6
Measles,	10	Ringworm,	3
		Others,	2

Smallpox.

No cases were notified during the year.

Vaccination (Scotland) Act, 1907.—The returns received from registrars showed that the number of statutory declarations of conscientious objection to vaccination amounted to 140, compared

with 142 in the year 1928. Of this number 58 were in the registration district of Cadder East; 47 in Cadder West; 30 in Rutherglen; 3 in Shettleston; 1 in Possilpark; and 1 in Garngadhill. The proportion of declarations for the whole district was 23 per cent. of the total births.

Diphtheria.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1926, 1927, 1928, and 1929:—

Year.	Numbers.		Rates.		
	Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Annual Average—					
1892-95,	25·2	8·2	32·6	0·75	2·47
1896-1900,	34·2	7·0	20·4	0·84	1·73
1901-05,	48·6	6·6	13·5	1·1	1·5
1906-10,	135·6	9·8	7·2	2·6	1·9
1911-15,	92·0	8·0	8·6	2·3	1·9
1916-20,	37·0	4·0	9·7	1·2	1·2
1921-25,	47·4	3·0	6·3	1·4	0·9
Year 1926,	74	6	8·1	2·3	1·9
„ 1927,	86	2	2·3	2·9	0·6
„ 1928,	72	4	5·5	2·1	1·2
„ 1929,	64	—	—	1·8	—

63 of the cases notified were removed to hospital, 1 being isolated and nursed at home.

In three instances the diagnosis was altered, as follows:—Laryngismus stridulus, 1; abscess of neck, 1; and ulcerative stomatitis, 1. One case suffered also from scarlet fever.

The monthly distribution throughout the year was as follows:—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec
4	2	2	7	5	4	4	5	9	12	5	5

The age incidence of the cases was as follows:—

Ages—	-1	1-5	5-15	15-25	25-45	45-65
Cases,	0	9	31	13	10	1

Of the cases admitted to hospital, 3 had received antitoxin before admission.

Scarlet Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1926, 1927, 1928, and 1929 :—

Year.	Numbers.		Rates.		
	Cases.	Deaths.	Deaths per 100 cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
Annual Average—					
1892-95, - -	189	9	4·6	5·6	2·6
1896-1900, -	245	10	4·0	6·0	2·4
1901-05, - -	136	4	2·9	3·1	0·9
1906-10, - -	224	6	2·7	4·4	1·2
1911-15, - -	240	7	2·8	5·9	1·6
1916-20, - -	63	1	1·2	2·1	0·2
1921-25, - -	87·2	0·8	0·8	2·7	0·1
Year 1926, - -	79	2	2·5	2·5	0·6
„ 1927, - -	67	3	4·5	2·2	1·0
„ 1928, - -	113	—	—	3·3	—
1929, - -	104	—	—	3·05	—

Of the 104 cases notified, 87 were removed to hospital.

No diagnosis was altered, but one case also suffered from diphtheria.

The monthly distribution of the cases was as follows :—

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
15	14	20	8	4	4	7	4	5	14	5	4

The age incidence of the cases was as follows :—

Ages.	under 1	1-5	5-15	15-25	25-45	45-65
Cases, - -	—	21	61	14	7	1

Enteric Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1926, 1927, 1928, and 1929 :—

Year.	Numbers.		Rates.		
	Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
Annual Average—					
1892-95,	48	7	15·5	1·4	2·2
1896-1900,	47	6	13·0	1·1	1·5
1901-05,	40	5	13·3	0·9	1·2
1906-10,	40	3	8·4	0·8	0·6
1911-15,	10	2	19·2	0·2	0·5
1916-20,	5	0·2	3·8	0·1	0·06
1921-25,	1·8	0·2	10·0	0·05	0·06
Year 1926,	4	1	25·0	0·1	0·03
„ 1927,	—	—	—	—	—
„ 1928,	3	—	—	0·09	—
„ 1929,	—	—	—	—	—

Continued Fever.

1 case, aged 14 years, notified from Cadder.

This boy was notified as "continued fever." He had been ill for about two weeks before notification with symptoms rather suggestive of enteric fever. Fæcal examination proved negative. Four days after admission to hospital a specimen of blood was reported as T.A.B. positive. The patient made a good recovery.

The only suggestion of source of infection was that the patient had been bathing in a loch near the village a short period before onset of illness.

Cerebro-spinal Fever.

Four cases were notified, 3 being removed to hospital. 2 cases died, 1 in hospital and 1 at home. In the other two instances the diagnosis was altered to influenza and pneumonia respectively.

Erysipelas.

Cases, 24. Deaths, 1. Removed to hospital, 2.

Pneumonia.

Cases, 124. Deaths, 27.

The cases were thus described in the notifications:—Influenzal-pneumonia, 36; broncho-pneumonia, 19; lobar-pneumonia, 18; primary pneumonia, 8; pleuro-pneumonia, 1; pneumonia (unqualified), 42.

The age and sex incidence of the cases were as follows:—

	Age—-1	1-5	5-15	15-25	25-45	45-65	65 and upwards.
Males, - -	4	21	11	14	11	5	4
Females, -	7	14	5	5	17	4	2

74 cases occurred during the first quarter of the year; 20 in the second; 10 in the third; and 20 in the fourth. The greatest number notified in one month was 45 in January.

With the exception of patients whose home conditions were such as to ensure suitable treatment, the cases were visited by the Nurse Health Visitors, and nursing advice and assistance given. In all, 133 visits were made to 114 cases. 47 cases were removed to hospital, compared with 31 in the previous year.

Encephalitis Lethargica.

Two cases were notified, both being removed to hospital, where 1 died. The other case was still in hospital at the end of the year.

Acute Anterior Poliomyelitis.

No cases were notified during the year.

Dysentery.

No cases were notified during the year, but one death was ascribed to dysentery. This death took place in the institution in which several cases occurred during the previous year. Mention of these cases was made in last year's report.

Chickenpox.

During the year 191 cases were notified, 104 being from the Parish of Cadder, 49 from Rutherglen, and 38 from Glasgow Parish. 1 case, who also suffered from whooping-cough, was removed to hospital.

Malaria.

No cases notified during the year.

Tetanus.

1 case, a boy, aged 13½ years, was notified.

This patient had scratched a finger on barbed wire about 10 days before the onset of the symptoms of tetanus. He was removed to hospital, and made a good recovery.

Non-notifiable Diseases.

The sources of information available to the Department regarding the prevalence of measles, whooping-cough, mumps, ringworm, &c., are as follows:—(1) information sent by schoolmaster for the purpose of certification of scholars absent on account of infectious disease; (2) applications made by school authorities for closure of schools when the attendance is interfered with by epidemic prevalence; (3) information obtained by the Nurse Health Visitors; and (4) the returns of deaths received from the local Registrars. The deaths due to the various non-notifiable diseases are shown in Table B.

The following tabular statement shows the deaths registered from measles and whooping-cough, and the deaths per 10,000 of the population in quinquennial periods since 1892, and for the years 1926, 1927, 1928, and 1929 :—

	Measles.		Whooping Cough.	
Annual Average—	Deaths.	Death rate per 10,000 Population.	Deaths	Death-rate per 10,000 Population.
1892-95,	17	5·2	9	2·8
1896-1900,	25	6·2	21	5·3
1901-05,	21	4·8	28	6·3
1906-10,	23	4·5	27	5·4
1911-15,	12	3·0	14	3·4
1916-20,	6	2·0	8	2·6
1921-25,	4·5	1·3	5·6	1·7
Year 1926,	5	1·6	1	0·3
,, 1927,	—	—	8	2·6
,, 1928,	6	1·8	6	1·8
,, 1929,	2	0·58	11	3·2

Measles.—The number of cases brought to the notice of the Department from various sources was 12, and 2 cases were removed to hospital. 10 visits were made by the Nurse Health Visitors, who gave advice as to the nursing of the disease and preventing the spread of infection.

Whooping-Cough.—The number of cases brought to the notice of the Public Health Department was 53, and 8 cases were removed to hospital. 54 visits were made by the Nurse Health Visitors. 4 of the cases removed to hospital were complicated with pneumonia, 2 with rubella, 1 with measles, and 1 with chickenpox.

Other Diseases.—The following cases of non-notifiable diseases were also treated in hospital :—Congenital syphilis, 1 ; scabies, 2.

A baby was also admitted with mother.

Schools.

No certificates for the closure of schools were given during the year. In some instances children were excluded from school, and all necessary steps taken to prevent the spread of infection.

Anthrax.

Four outbreaks of this disease in cattle were reported during the year, 3 in the Parish of Cadder and 1 in Carmunnock Parish. None of the persons in contact with the diseased animals was infected.

Venereal Diseases.

Bacteriological Examinations.—The following table gives a list of specimens sent to the County Bacteriological Laboratory :—

	Sent by			Result	
	Medical Practitioners.	Coathill Clinic.	Motherwell Hospital.	+	-
Blood, - - -	21	3	2	7	19
Swab, - - -	5	—	—	—	5
Smear, - - -	8	—	—	2	6
	34	3	2	9	30

Hospitals.

The Annual Report by the Physician-Superintendent of Lightburn Joint-Hospital forms an appendix to this report.

In addition to the cases treated in Lightburn Joint-Hospital, the following cases were treated in other institutions :—

Scarlet Fever, - - -	1 case in Motherwell Hospital.
Diphtheria, - - -	1 case in Ruchill Hospital.
Do.,	1 case in Knightswood Hospital.
Pneumonia, - - -	1 case in Belvidere Hospital.
Encephalitis Lethargica, -	1 case in Hartwood Mental Hospital.
Puerperal Fever, - -	1 case in Motherwell Hospital (transferred from Bellshill Hospital).

Tuberculosis.

The provision of institutional treatment for tuberculosis was commenced in 1905, and notification was then arranged for on a voluntary basis. In the year 1907 pulmonary tuberculosis was made compulsorily notifiable in this District under the Notification Act, but was not made compulsorily notifiable throughout Scotland until 1st August, 1912. On 1st July, 1914, non-pulmonary tuberculosis was also made compulsorily notifiable throughout Scotland.

The following tabular statement shows the deaths from tuberculosis since the commencement of County administration, but, owing to the annexations which have taken place, it is not desirable to place too much reliance in these figures for the purpose of comparison, as the

composition of the population, especially the proportion of urban to rural, has changed considerably :—

Annual Average—	Pulmonary. Cases Notified.	Pulmonary. Deaths Registered.	Pulmonary. Death-rate per 10,000 Population.	Non-Pulmonary. Cases Notified.	Non-Pulmonary. Deaths Registered.	Non-Pulmonary. Death-rate per 10,000 Population.
1891-95,	—	42	12·8	—	29	7·1
1896-1900,	—	47	11·7	—	29	6·8
1901-05,	—	54	12.4	—	33	7·2
1906-10,	65	57	11·3	—	41	7·6
1911-15,	59	28	6·8	—	24	5·8
1916-20,	42	22	7·3	31	11	3·5
1921-25,	45·5	18·4	5·8	33·8	8	2·5
Year 1926,	57	21	6·7	26	7	2·2
,, 1927,	31	16	5·3	24	6	2·0
,, 1928,	52	24	7·2	23	8	2·4
,, 1929,	55	28	8·2	19	5	1·4

Pulmonary.

Mortality.—The deaths from pulmonary tuberculosis amounted to 28, giving a death-rate of 0·82 per thousand of the population. The deaths will be found classified according to parish in Table B, and the age incidence will be found in Table C.

Deaths in Relation to Notification.—Of the 28 deaths registered 25 were notified cases. 1 of the deaths not notified occurred outwith the Lower Ward District and was transferred in. In addition, one death of a case notified as pulmonary tuberculosis was ascribed to senile decay, while in one instance a death of a notified case of pulmonary tuberculosis was transferred out. In all, there were 27 deaths of notified cases.

Of the notified cases—1 was notified in 1921, 1 in 1925, 1 in 1926, 2 in 1927, 8 in 1928, and 14 in 1929. Nine of the cases died within three months of notification, viz., 2 within a week, 3 within a month, 3 within 3 months, while 1 was notified after death.

Notification.—The number of cases notified amounted to 55, and were classified as follows :—Definite (sputum not examined), 11; definite (sputum positive), 18; definite (sputum negative), 8; suspect for observation, 11; death before notification, 1; and not visited, 6.

The *occupations* of the cases notified were:—Housewives, 8; scholars, 7; labourers, 3; steelworkers, 3; miners, 3; motor drivers, 2; engineers, 2; clerks, 2; signalman, 1; engineman, 1; blacksmith, 1; undertaker, 1; clergyman, 1 domestic, 1; draper, 1; tubeworker, 1; telephone operator, 1; sweeper, 1; civil engineer, 1; draughtsman, 1; tailor, 1; shop assistant, 1; carter, 1; salesman, 1; inspector, 1; student, 1; wringer maker, 1; no occupation, 1; not known, 5.

The age incidence of the cases notified was as follows:—

Ages,	1-5	5-15	15-25	25-45	45 65	65 & upwards	Total.
Cases,	—	6	15	27	6	1	55

Housing Conditions of the Cases Notified.—8 of the cases lived in houses of one apartment; 19 in two-apartment houses; 12 in three-apartment houses; 6 in four-apartment houses; 8 in houses of more than four apartments; and 2 in institutions.

Total Cases on Record.—At the beginning of the year there were 101 cases on the register, and during the year 55 new cases were notified, making a total of 156 cases dealt with. Of the total dealt with, 27 died (26 from pulmonary tuberculosis, and 1 from other causes); 10 left the district; in 4 cases the names were removed from the register as the disease was arrested; and 3 names were removed on proving to be non-tubercular. At the close of the year 112 cases remained on the register.

Arrest of the Disease.—The cases whose names were removed from the register for this reason were notified as follows:—1 each in 1920, 1923, 1924, and 1926.

Proved Non-tubercular.—Of the 3 cases whose names were removed from the register for this reason, 1 was notified in 1924 and 2 in 1929.

Non-Pulmonary.

Mortality.—The deaths from non-pulmonary tuberculosis amounted to 5 (3 meningeal and 2 other tuberculosis), giving a death-rate of 0·14 per thousand of the population. The deaths will be found classified according to parish in Table B, and the age incidence will be found in Table C.

Of the 5 deaths registered, 2 were not notified cases.

Notification.—The number of cases notified amounted to 19, and were classified as follows:—Glandular, 7; osseous or arthritic, 4; abdominal, 2; meningeal, 4; others, 2.

The age incidence of the cases notified was as follows :—

Ages, -	Under 1	1-5	5-15	15 25	25-45	Total.
Glandular, -	—	1	5	1	—	7
Abdominal, -	—	1	1	—	—	2
Meningeal, -	2	1	1	—	—	4
Other Forms,	—	1	3	1	1	6

Total Cases on Record.—At the beginning of the year there were 87 cases on the register, and during the year 19 new cases were notified, making a total of 106 cases dealt with. Of the total cases dealt with, 6 died; 10 left the district; in 4 cases the names were removed from the register as the disease was cured, healed, or permanently arrested; while in 2 cases the names were removed on account of the conditions proving non-tubercular.

At the close of the year 84 cases remained on the register.

Arrest or Cure of the Disease.—The 4 cases removed from the register were notified in 1926.

Domiciliary Treatment.—Cases of tuberculosis suitable for treatment at home are supervised by the Tuberculosis Officer and Nurse Health Visitors. The visits made by the latter during the year numbered 1,100—613 to pulmonary and 487 to non-pulmonary cases. In addition, a considerable number of patients attended the Child Welfare Centres and the Public Health Offices in Glasgow, while the attendances at Cambuslang Dispensary were as follows :—

Cases, 212. Consultations, 109.

One shelter was in use throughout the year.

10 cases received nourishment in the form of milk and eggs. Malt, cod-liver oil and emulsion, virol, and chemical food were also supplied to suitable cases.

Sanatoria.

Pavilion VI at Lightburn Joint-Hospital is set aside for the treatment of tuberculosis cases from the Lower Ward area. In addition to this, cases are also treated at the various Middle Ward sanatoria, and

the following table shows the number of patients in the various institutions during the year :—

P. = Pulmonary. N.P. = Non-Pulmonary.

Institution.		Remaining end of 1928.	Admitted during 1929.	Discharged during 1929.	Died during 1929.	Remaining end of 1929.
Lightburn,	P.	8	24	20	5	7
	N.P.	10	12	16	2	4
Stonehouse,	N.P.	1	—	—	—	1
Hairmyres,	P.	—	2	2	—	—
Dalserf,	N.P.	—	1	—	—	1
		19	39	38	7	13

The duration of residence in hospital of the cases dismissed in 1929 was as follows :—

Months,	1-3	3-6	6-9	9-12	12 and over
Pulmonary, - -	15	5	2	3	2
Non-Pulmonary, -	3	4	9	2	—

Refractories Industries (Silicosis) Scheme, 1919.

No examinations under the above scheme were made during the year.

MATERNITY AND CHILD WELFARE.

The number of *births* registered, corrected for transfers, was 595, the birth-rate for the year being 17·5 per thousand of the population. Of the 595 births, 26 were illegitimate.

Notifications.—Of the 595 births registered, 565 were notified, and, in addition, 20 still-births were reported.

Table E shows the births registered; births notified; visits made by the Nurse Health Visitors; the attendant at confinement as ascertained at the first visit; infant deaths registered, and the infantile death-rate, the information being tabulated according to parishes.

Infantile Mortality.—The deaths of infants under one year numbered 40, giving an infant mortality rate of 67·2 per thousand births, as compared with 94·7 in the previous year. Of the 40 deaths, 24, or 60 per cent., were due to developmental causes, which include

prematurity, atrophy, &c. Of these 24 deaths, 20, or 83 per cent., occurred during the first four weeks of life.

Maternal Deaths.—One death occurred in relation to pregnancy and confinement, the cause of death being "puerperal septicæmia."

The following circular letter with regard to the investigation of maternal deaths was issued to medical practitioners practising in the district:—

"DEAR SIR,

"INVESTIGATION OF MATERNAL DEATHS.

"The Local Authority has adopted the proposal of the Department of Health that investigation be made into maternal deaths occurring in the District, and for your information I enclose a copy of the Explanatory Memorandum and of the prescribed Form of Enquiry.

"In this area the Medical Officer of Health will be responsible for the enquiry, and the medical data will be collected by the Senior Assistant Medical Officer. On receiving a Return of Death, I propose to ask the medical attendant whether he prefers to submit a written report or to interview the medical investigator at such time and place as is convenient. I think the latter procedure preferable, as the Form can be more readily completed with a knowledge of the other sources of information that are available.

"The enquiry will be strictly limited to the recording of facts, and for this reason I have thought it desirable not to invoke the aid of specialised obstetrical experience.

"I hope to have your ready co-operation in carrying out the investigation.

"Yours faithfully,

"J. HUME PATTERSON,
"*Medical Officer of Health.*"

TABLE E.—Lower Ward District.

	Births.			Number of Visits.			Attendant at Confinement.				Infant Deaths.	
	Registered.	Alive.	Still-born.	First.	Subsequent.	Total.	Doctor.	Midwife.	Handy-woman.	Institution.	Registered.	Rate per 1000 Births.
Glasgow (late Barony),	144	135	5	98	700	788	52	29	—	7	8	13·4
Cadder, ...	326	315	9	292	2,463	2,755	146	103	3	40	21	25·3
Rutherglen, ...	112	104	6	74	838	912	26	44	—	4	9	15·1
Carmunnock, ...	13	11	—	9	54	63	8	1	—	—	2	3·4
	595	565	20	463	4,055	4,518	232	177	3	51	40	67·2

Table F shows the infant deaths arranged according to the classification requested by the Department of Health :—

Table F.

	Age Periods.					
	Weeks.		Months.			Total.
	-1	1-4	1-3	3-6	6-12	-12
Chickenpox,	—	—	—	—	—	—
Measles,	—	—	1	—	1	2
Scarlet Fever,	—	—	—	—	—	—
Whooping-Cough,	—	—	1	—	—	1
Diphtheria and Croup,	—	—	—	—	—	—
Erysipelas,	—	—	—	—	—	—
Mumps,	—	—	—	—	—	—
Tuberculous Disease,	—	—	—	—	—	—
Meningitis (not tuberculous),	—	—	—	—	—	—
Hydrocephalus,	—	—	—	—	—	—
Convulsions,	—	—	—	—	—	—
Pneumonia (all forms),	—	—	1	—	1	2
Influenza,	—	—	1	—	4	5
Bronchitis,	—	—	—	—	—	—
Diarrhœa and Enteritis,	—	—	—	1	1	2
Other Digestive Diseases,	—	—	—	—	—	—
Diseases of Ductless Glands,	—	—	—	—	—	—
Congenital Malformation,	—	2	—	—	—	2
Congenital Heart Disease,	—	—	—	—	—	—
Organic Heart Disease,	—	—	—	—	—	—
Premature Birth,	4	4	—	—	—	8
Atrophy, Debility, and Marasmus,	7	2	2	2	—	13
Atelectasis,	1	—	—	—	—	1
Injury at Birth,	2	1	—	—	—	3
Suffocation (overlying),	—	—	—	—	—	—
Syphilis,	—	—	—	—	—	—
All other causes,	—	—	—	—	1	1
	14	9	6	3	8	40

Puerperal Fever and Puerperal Pyrexia.

Regulations were issued by the Department of Health for Scotland requiring, as from 1st October, 1929, notification by a medical practitioner of all cases of puerperal pyrexia (*in addition* to the present notification of puerperal fever). The following circular letter was therefore issued to medical practitioners :—

"Sir,

"Notification of Puerperal Pyrexia.

"On 21st September last I sent, for your information, a copy of the Regulations made by the Department of Health for

Scotland requiring, as from 1st October, notification by a medical practitioner of all cases of puerperal pyrexia that occur in his practice (*in addition* to the present notification of puerperal fever).

"Puerperal pyrexia is defined in the Regulations as 'any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease (Notification) Act, 1889), occurring in a woman within twenty-one days after childbirth or miscarriage in which a temperature of 100·4°F. (38°C.) or more has been sustained during a period of twenty-four hours, or has recurred during that period.' Medical practitioners are thus under obligation to notify to the Medical Officer of Health all cases of pyrexia during the puerperium, irrespective of the cause to which the fever may be attributed.

"It should be understood that the main purpose of notification is not to accumulate statistical data, but to secure the co-operation of the medical attendant in the use of the treatment and preventive facilities provided by the Local Authority.

"In addition to a form for the notification of puerperal pyrexia, the Regulations provide an amended form for notification of puerperal fever. The forms enable practitioners, when notifying a case of either puerperal fever or puerperal pyrexia to indicate whether any assistance in dealing with the case is desired. To meet the convenience of practitioners, the form of notification for all Infectious Diseases has been modified to include the additional information, and a supply of the amended forms is enclosed. The assistance that the Local Authority has provided for medical practitioners in the area is *shown in the accompanying statement.*

"In a case of urgency a telephone message or telegram should be sent to the Medical Officer of Health, followed by the notification through the usual channels.

"Yours faithfully,

"J. HUME PATTERSON,

"*Medical Officer of Health.*"

COUNTY OF LANARK.

DISTRICT OF THE LOWER WARD.

MATERNITY AND CHILD WELFARE SCHEME.

ARRANGEMENTS FOR THE DIAGNOSIS AND TREATMENT OF PUERPERAL FEVER AND PUERPERAL PYREXIA.

CONSULTANT SERVICE.—Until May, 1930, the Physician-Superintendent, Lightburn Joint-Hospital, Shettleston (Tel No. Shettleston 104), will be available to act as a consultant in all cases of doubtful illness.

Bacteriological Examinations.—These will be carried out in the Public Health Laboratory, County Buildings, Hamilton (Tel. No. Hamilton 203). Arrangements have been made for specimens to be taken by the consultant, or a member of the medical staff, where this is requested. As it is preferable to have specimens obtained by a uniform method, this procedure will no doubt commend itself to practitioners in most instances.

Skilled Nursing at Home.—The District Nursing Associations have agreed to carry out the nursing of patients who are fit to be treated at home, and in cases of necessity the cost of these services will be borne by the Local Authority.

Hospital Treatment.—Beds have been reserved in Lightburn Joint-Hospital, Shettleston (Tel. No. Shettleston 104), for the treatment of all febrile conditions occurring during the puerperium. There is accommodation not only for patients who are frankly ill, but also for cases not yet diagnosed and requiring further observation. Dr. Samuel J. Cameron is Consulting Obstetrician to the Hospital.

Puerperal Fever.—10 cases were notified and 9 were removed to hospital. In four instances a midwife was in attendance at the birth. 1 died, and is referred to under the heading of maternal deaths.

Puerperal Pyrexia.—1 case was notified, the patient being nursed at home.

Still-births.—Special visits of enquiry were made, and the records of 11 cases showed that the following conditions were noted as the probable cause :—

(a) *Affecting the Mother.*—Difficult labour, 2 ; prolonged labour, 1 ; ante-partum hæmorrhage, 1 ; unknown, 5.

(b) *Affecting the Child.*—Prematurity, 2.

In 8 instances the fœtus was stated to be normal in appearance ; in 2, macerated ; and in 1, the condition was unknown.

In 6 instances the confinement was normal ; in 2, difficult ; in 1, forceps were used ; and in 2 instances information as to the nature of confinement could not be obtained.

None of the mothers was not otherwise employed than at their household duties.

In 5 cases the still-birth was the first pregnancy; in 1, the third; in 2, the fifth; in 1, the sixth; in 1, the seventh; and in 1, the ninth.

In 6 instances a doctor alone was present at the confinement; in 3, a midwife alone; and in 2, the confinement took place in an institution.

Ophthalmia Neonatorum.—9 cases were notified, 6 being notified by doctors and 3 by midwives. In 3 instances a doctor attended at the confinement; in 5, a midwife; while in 1 instance the confinement took place in an institution. 2 cases were removed to hospital. In no instance was the result of swab positive for gonococci.

Necessitous Cases.—An allowance of milk was granted to nursing and expectant mothers and to children who were ill-nourished and in necessitous circumstances. All applicants are seen by the Medical Officer, the assistance granted being governed by the following standards:—Where the weekly income per adult (children under 14 years of age counting as half adults) was less than 7s., full assistance was given; if from 7s. to 8s. 6d., half assistance; if over 8s. 6d., no assistance.

Forms showing the home and financial circumstances of the applicants are in use. These have proved of great assistance in checking the statements.

Throughout the year 53 families were granted assistance, at an estimated cost of £51 2s. 5d., compared with 74, at an estimated cost of £73 8s. 7d. last year.

Child Welfare Centres.—It is again a pleasure to acknowledge the voluntary assistance of the lady members of the two Child Welfare Associations, and to know that their work is still being carried on.

	Year.	Mothers.	Children.	Consultations.	Lectures.	Demonstrations.
Chryston,	1919,	1,123	609	210	10	36
	1920,	1,577	1,267	443	10	38
	1921,	1,413	958	303	7	29
	1922,	1,851	1,358	487	10	33
	1923,	1,747	1,596	430	11	37
	1924,	1,516	1,346	353	10	38
	1925,	1,676	1,369	250	6	41
	1926,	2,305	1,616	320	6	20
	1927,	1,865	1,407	277	13	32
	1928,	1,858	1,467	339	8	22
	1929,	1,757	1,431	213	4	18

	Year.	Mothers.	Children.	Consultations.	Leetures.	Demonstrations.
Bishopbriggs,	1919,	1,260	926	282	10	38
	1920,	1,748	1,321	438	9	39
	1921,	1,688	1,041	379	7	30
	1922,	2,225	1,427	526	10	31
	1923,	2,128	1,745	487	10	37
	1924,	2,374	1,892	601	10	38
	1925,	2,145	1,593	571	8	38
	1926,	3,141	2,145	544	5	22
	1927,	1,896	1,332	409	8	35
	1928,	1,722	1,185	292	7	36
	1929,	1,681	1,257	299	4	34
Cambuslang,	1924,	403	339	233	—	—
	1925,	135	199	190	—	—
	1926,	817	223	304	—	—
	1927,	430	370	390	—	—
	1928,	545	527	347	—	—
	1929,	270	252	199	—	—

Consultations at Centres.—The conditions found are summarised in the following table:—

Mothers—		Children—	
Ante-natal,	30	Nutritional,	48
Post natal,	19	Gastro-intestinal,	37
Gynæcological,	7	Skin,	46
Anæmia,	3	Respiratory,	41
Debility,	2	Ear, Nose, and Throat,	21
Ear, Nose and Throat,	2	Hernia,	11
Injury,	2	Rickets,	8
Others,	12	Debility,	8
		Phimosis,	7
		Eyes,	6
		Stomatitis,	6
		Injury,	5
		Tongue-tied,	5
		Burns,	4
		Adenitis,	2
		Caries of Teeth,	3
		Chickenpox,	2
		Infantile Paralysis,	2
		Deformity,	2
		Abscess,	2
		Others,	14

Visitations.—The number of visits made by the three Nurse Health Visitors was 6,141, of which 463 were first visits; 4,055 re-visits; 57 special visits; 34 infantile mortality visits; 170 ante-natal visits;

and 1,362 re-visits to children from the age of 18 months to 5 years. These figures, of course, do not include the visits made by the nurses to cases of infectious and contagious diseases, which are referred to on page 497.

Hospital Admissions.—The County Maternity Hospital at Bellshill and Convalescent Home at Calderbank continued to grant facilities for the treatment of suitable cases.

48 mothers were treated in Bellshill, the conditions requiring removal being as follows:—Unsuitable home, 18; ante-natal treatment, 6; abortion, 5; albuminuria, 5; ante-partum hæmorrhage, 4; pyelitis, 4; eclampsia, 2; difficult confinement, 1; metorrhagia, 1; hyperemesis, 1; injury during pregnancy, 1.

7 mothers, 5 babies, and 8 children were treated in Calderbank Home. The mothers were admitted for the following reasons:—Debility, 4; anæmia, 1; ante-natal debility, 1; post-natal debility, 1. They were all in necessitous circumstances, and could not provide themselves with the rest they required. The results were excellent.

Of the 13 children treated in Calderbank Home, 5 were suffering from debility; 1 from eczema; 1 from rickets; and 1 was admitted while the mother was in hospital. 5 were also admitted with their mothers.

It should be noted that where patients were transferred from one institution to another (*e.g.*, from Bellshill Hospital to Calderbank Home) it is taken as one admission.

In addition, 6 mothers from the District were admitted while in labour to the Royal Maternity Hospital, Glasgow, all going in of their own accord, while 4 mothers were admitted to the ante-natal ward, 2 on account of albuminuria, 1 on account of previous cæsarean section, and 1 on account of eclampsia.

COUNTY OF LANARK
DISTRICT OF THE LOWER WARD.

Midwives (Scotland) Act, 1915.

Annual Report by the Medical Officer of Health, 1929

STAFF.

Administrative Officer.

J. Hume Patterson, F.R.F.P.S.(Glas.), D.P.H.

Executive Officer and Inspector of Midwives.

G. Macleod Millar, M.B., Ch.B., D.P.H.

Nurse Health Visitors and Assistant Inspectors of Midwives.

(*All hold C.M.B. Certificate.*)

Margaret L. Winchester.
Jean M'Kee.
Mary C. Dickson.

REPORT

Practising Midwives.—13 midwives resident within the District notified their intention to practise during the year. 1 resided in the Parish of Glasgow, 11 in Cadder, and 1 in Rutherglen. 2 of this number died during the year.

20 midwives resident outwith the District attended cases during the year, all of whom have recognised qualifications.

Certification.—Six of the midwives hold the certificate of the Central Midwives Board for Scotland by examination, while the remaining 7 are *bona-fide* midwives.

Length of Time in Practice.—Five have been in practice for over 30 years, while 3 have acted for over 20 years.

Attendance at Confinements.—595 births were registered, and of this number 585, or 98 per cent., were notified, and 40 per cent. were attended by certified midwives. The following table gives, according to Parish, the number of Births registered and notified, and of those notified, the person in attendance at confinement according to notification received :—

Parish.	Number of Births.		Attendance at Confinement.		
	Registered.	Notified.	Doctor.	Midwife.	Handywoman.
Glasgow, - -	144	140	94	46	—
Cadder, - -	326	324	193	130	1
Carmunnock, -	13	11	11	—	—
Rutherglen, -	112	110	43	67	—
	595	585	341	243	1

Inspection of Midwives.—The total number of inspections made by the Assistant Inspectors of Midwives was 48. They found that the personal conditions were satisfactory in 10 instances and only fair in 3. The home conditions were described as satisfactory in 10 instances, and only fair in three.

Four midwives in the District are unable to read or write, and their records are kept by members of the family.

Extent of Practice.—The registers kept by the midwives showed that 1 attended over 30 confinements; 1 from 20 to 30; 1 from 10 to 20; 7 from 1 to 10; and 1 had attended none, while 2 only attended confinements with a doctor.

Medical Assistance.—In 45 instances a doctor was called to the assistance of the midwife in accordance with the rules of the Central Midwives Board. The conditions requiring medical aid were as follows:—On account of mother—Delayed labour, 13; abnormal presentation, 5; ruptured perineum, 5; difficult labour, 2; uterine inertia, 2; prolapse of anterior lip of cervix, 2; rise of temperature, 2; false labour, 1; twin birth, 1; contracted pelvis, 1; rigidity of perineum, 1; illness, 1. On account of baby—Discharging eyes, 4; debility, 2; prolapse of cord, 1; deformity, 1; spina bifida, 1.

Payment of Doctors' Claims.—33 claims amounting to £53 17s. 6d. were received, and of this sum £7 8s. 6d. was recovered from the husbands of the patients.

Puerperal Septicæmia (including all notifications of Puerperal Fever).—10 cases were notified, 9 being removed to hospital. In 4 instances a midwife was in attendance at the birth. 1 of the cases died, the cause of death being ascribed to puerperal septicæmia.

Puerperal Pyrexia.—One case was notified and nursed at home.

Still-births.—During the year 20 still-births were reported, 16 of which were attended by doctors and 4 by certified midwives. 3 forms notifying still-births were received from midwives during the year.

Ophthalmia Neonatorum.—Nine cases were notified, 6 by doctors and 3 by midwives.

Liability to be a Source of Infection.—4 forms were received from midwives who had been in contact with cases of infectious disease. In 2 instances contact was with puerperal fever, in 1 with diphtheria, and in 1 with scarlet fever.

Artificial Feeding.—No form notifying advice of artificial feeding by a midwife was received during the year.

GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done, under the headings, "Housing," "Water Supply," "Drainage and Sewage Disposal," "Nuisances," "Seasonal Workers," "Workshops," "Sanitary Conditions of Dairies, Cowsheds, and Milkshops," &c., &c.

Milk (Special Designations) Order (Scotland), 1923.

During the year a licence was granted to the Glasgow District Board of Control, Gartloch Asylum, for the production and sale of Certified Milk. Licences were also granted to five dealers for the sale of Grade A (T.T.) Milk and to one dealer for the sale of Certified Milk and Grade A (T.T.) Milk.

These licence holders were sampled on twelve occasions throughout the year. In two instances coliform bacilli were found to be present, but on further sampling being carried out this was rectified. The samples otherwise complied with the bacteriological and chemical standards required.

Veterinary Inspection of Dairy Herds.

The observation and investigation of bovine tuberculosis, especially in dairy stock, has, since the year 1904, been the subject of veterinary inspection, and the detailed result of the work done during the year in the Lower Ward is here given.

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. Samples of milk are taken from any animal which is suffering from any suspicious condition of the udder. If, on examination, in the bacteriological laboratory such samples are found to contain streptococcus mammitis or other infective germs, a letter is sent to the owner of the animal directing his attention to the fact that it is an offence to sell or expose for sale the milk from such a cow for human consumption. During the year 1929, 11 such letters have been sent. If the samples are found to contain tubercle bacilli the animals are dealt with under the Tuberculosis Order.

Veterinary Inspection of Dairy Herds.—Year 1929.

Parish.	Herds Registered.	Herds Inspected.	Cows Inspected.	Cows with Abnormal Condition of Udder.						Samples of Milk.			
				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Totals.	Number taken.	Number found to contain tubercle.	Number found to contain other infectious organisms.	Negative.
Cadder,	58	77	1,816	3	56	3	10	—	72	15	3	6	6
Barony,	11	14	179	1	7	—	1	—	9	1	1	—	—
Carmunnock,	18	18	606	--	31	—	8	—	39	6	—	3	3
Rutherglen,	3	5	75	1	2	—	—	—	3	1	1	—	—
	90	114	2,676	5	96	3	19	—	123	23	5	9	9

Report by the Sanitary Inspector

For the Year 1929.

Area, 21,101 Acres. **Estimated Population, 34,000.**

HOUSING.

As stated in last year's Report, the Committee at the end of the year was considering the erection of more houses, and was awaiting a report as to the ground available at the several Housing Schemes. After due consideration, it was decided to proceed with a further instalment, comprising 198 houses—80 houses of three apartments, and 118 houses of two apartments; the allocation of the houses to the various districts being as follows:—

	2 Apts.	3 Apts.
Chryston, ...	8	12
Millerston, ...	24	16
Rutherglen (Baronald Street), ...	12	6
Rutherglen (Farme), ...	24	20
Bishopbriggs, ...	30	16
Bishopbriggs (Auchinairn), ...	20	10

With the exception of a few at Rutherglen (Farme) site, these houses were all completed and occupied during the year.

Plans for a Housing Scheme in the Rutherglen area, at Bankhead, comprising 720 houses of four apartments, were submitted by the Western Heritable Investment Co., Ltd., and approved of by the Committee at their meeting in the month of May. At the end of the year the majority of the houses had been passed for occupancy.

With the completion of the District Committee's Housing Schemes, overcrowding has abated to a great extent. In the Shettleston area, however, where no houses have yet been built by the District Committee, overcrowding is still prevalent, and at present there are about 40 houses which are considered uninhabitable. No action can be taken to close these houses, however, until provision is made for re-housing the dispossessed tenants.

It has been observed that a few of the tenants in the Housing Schemes have either sub-let an apartment or taken in lodgers. This is accounted for by the financial difficulties of many of the tenants, the increased rent, compared with that of their former dwellings, being too great to be borne without further financial aid.

NUMBER OF HOUSES COMPLETED UNDER 1919 ACT.

	3 Apts.	4 Apts.	Total.
*Lambhill, ...	48	24	72
Millerston, ...	56	20	76
Auchinairn, ...	36	12	48
Bishopbriggs, ...	48	28	76
Chryston, ...	8	6	14
Garnkirk, ...	16	8	24
Gartcosh, ...	20	8	28
Stepps, ...	12	4	16
Eastfield, ...	72	30	102
Carmunnock, ...	16	8	24
	332	148	480

* Now in City of Glasgow.

NUMBER OF HOUSES COMPLETED UNDER 1924 ACT.

	2 Apts.	3 Apts.	Total.
Auchinloch, ...	12	8	20
Auchinairn, ...	18	10	28
,, (Springfield Lodge), ...	40	52	92
Bishopbriggs, ...	70	50	120
Millerston, ...	48	44	92
Garnkirk (No. 1 Site), ...	36	12	48
,, (No. 2 Site), ...	20	24	44
Chryston, ...	32	40	72
Steppshill, ...	30	—	30
Carmunnock, ...	12	8	20
Moodiesburn, ...	8	4	12
Gartcosh, ...	20	8	28
Rutherglen (Farme), ...	60	28	88
,, (Barnflat Street), ...	36	18	54
,, (George Gray Street),	12	18	30
	454	324	778

HOUSES ERECTED BY PRIVATE ENTERPRISE.

1919 TO 1929 INCLUSIVE.

	Apartments.						
	1	2	3	4	5	6 and over.	Total.
1919 ...	—	1	—	8	—	1	10
1920 ...	—	—	12	1	3	1	17
1921 ...	—	—	69	51	3	1	124
1922 ...	—	—	12	9	8	9	38
1923 ...	—	—	29	16	21	18	84
1924 ...	8	79	308	52	29	40	516
1925 ...	—	—	42	81	30	4	157
1926 ...	8	—	21	72	14	6	121
1927 ...	—	—	351	329	22	7	709
1928 ...	—	—	43	95	10	4	152
1929 ...	—	—	27	739	9	6	781
	16	80	914	1,453	149	97	2,709

BUILDING BY-LAWS.

The number of plans lodged was 59, all of which were approved, as compared with 44 in the previous year.

The number and size of the houses, as indicated by the plans lodged, were as follows:—4 houses of one apartment; 116 houses of two apartments; 100 houses of three apartments; 819 houses of four apartments; 5 houses of five apartments; and 3 houses of six apartments and over. In addition, the following subjects were approved: 1 school; 1 welfare institute; 4 single shops; 4 garages; 8 lockups; 2 sport pavilions; 1 bakehouse; and 1 addition to factory.

The following houses were passed for occupancy:—118 houses of two apartments; 107 houses of three apartments; 739 houses of four apartments; 9 houses of five apartments; and 6 houses of six apartments, making a total of 979 houses. Of this total 198 houses were in the District Committee's Housing Schemes, 753 subsidy houses and 28 non-subsidy houses.

In the administration of the Building By-laws the Building Inspector reported that 3,270 inspections were made during the progress and construction of houses and other buildings. In connection with sites, formation of roads, and construction of sewers and other matters relative to the Committee's Housing Schemes, 390 inspections were made.

458 applications of the smoke-test were made to the drains and plumber work of 917 properties.

Housing (Inspection of District) Regulations, 1928.

In connection with the Inspection of District Regulations, 114 visits were made in respect of houses considered to be not in a reasonable state of repair. 34 houses were considered to be unfit for human habitation. 10 representations with a view to the making of Closing Orders were submitted to the Committee, and at the end of the year 4 Closing Orders had been issued—in addition 10 houses had been closed voluntarily, and 5 were repaired without the issuing of Closing Orders.

At the village of Jellyhill there are 31 houses which, while not in a condition to be closed as uninhabitable, are in need of improved sanitary conveniences and water supply. The houses are the property of the Carron Company, who until lately worked the coal pits

in the vicinity. The pits are now closed, and it is unlikely that they will ever be opened again, with the result that the Company are unwilling to expend the necessary capital to effect the improvements. A meeting was arranged with the Carron Company's factor and the question of improvements discussed. The factor stated that the Carron Company had no further use for the houses and they were not prepared to expend the money necessary for the alterations to be carried out, but he agreed that, as the houses were vacated by the present tenants they would be voluntarily closed. At the end of the year 3 houses had been so closed.

Closing Orders in respect of 5 houses in the village of Mollinsburn were determined, repairs and improvements having been carried out. The houses have been vastly improved, and this is an example of what can be done with old property if sufficient money is available.

In last year's Report attention was drawn to the case of a house in the village of Carmunnock on which both a Closing Order and a Demolition Order had been issued. The tenant has now vacated the house, and the proprietor has obtained the consent of the Committee to use the house for keeping garden implements.

Tabulated Statements A, B, C, showing Proceedings taken as regards the Inspection and Closure of Dwelling Houses.

A.—Housing (Inspection of District) Regulations, 1928.

1.	Number of dwelling houses inspected, ...	114 (Includes 15 Secondary Inspections.)
2.	Number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation, ...	34
3.	Number of representations made to the Local Authority with a view to the making of Closing Orders, ...	10
4.	Number of dwelling houses in respect of which Closing Orders were made, ...	4 (10 houses closed voluntarily.)
5.	Number of dwelling houses the defects in which were remedied without either the making of Closing Orders or the service of Notices under Section 3 (1) of the Housing (Scotland) Act, 1925,	5
6.	Number of dwelling houses which after the making of Closing Orders were put into a fit state for human habitation, ...	Nil.

B. Housing (Scotland) Act, 1925.

1. Number of dwelling houses in respect of which Notices were served under Section 3 (1), ...	47
2. Number of dwelling houses rendered fit for human habitation under Section 3 (1), ...	21
3. Number of dwelling houses in respect of which Closing Orders were deemed to have become operative under Section 3 (1), ...	Nil.
4. Number of dwelling houses rendered fit for human habitation by the Local Authority under Section 3 (2), ...	Nil.
5. Number of cases where Intimations were given under Section 20 (1) as to insufficient water-closet accommodation, ...	61
(*a*) Cases where requirements were complied with by owners, ...	33
(*b*) Cases where work was carried out by Local Authority after failure of owners to do so, ...	Nil.
(*c*) Cases still pending, ...	28
6. Number of houses of (*a*) one apartment, and (*b*) two apartments, for the erection of which the consent of the Local Authority has been given in terms of Section 111, ...	(a)—4 (b)—Nil.

C.—Housing, Town Planning, &c. (Scotland), Act, 1919.

1. Number of cases where Notices were served under Section 40 (1) to provide dwelling houses with water supply, ...	26
(*a*) Cases where requirements were complied with by owners, ...	1
(*b*) Cases where work was carried out by Local Authority, after failure of owners to do so, ...	Nil.
(*c*) Cases still pending, ...	25

HOUSING (RURAL WORKERS) ACT, 1926.

In respect of the application for grant approved of, and reported in last year's Report, the work specified has now been completed.

During the year an application was received for a grant in respect of a two-apartment house in the Rutherglen area, occupied by a farm

servant. It was proposed to improve the conditions by carrying out the following work :—

Introduction of gravitation water supply and sink.
Erection of water-closet.
Drainage and disposal system for waste and soil drainage.
Re-laying kitchen floor with concrete and granolithic.
Repair of defective plaster-work.
Pointing of external walls.

The application was approved and Certificate A granted, but at the end of the year the work had not been completed.

In view of a circular issued to Local Authorities by the Department of Health for Scotland, for the need of action to bring farm servants' houses up to the required standard, a systematic inspection was made of all the houses occupied by farm servants throughout the district. The number of houses visited was 53, and notices were issued to the owners in all cases where it was found necessary, either in respect of the introduction of a gravitation water supply to the house, water-closet, or earth-closet accommodation. In addition representations for Closing Orders in respect of 7 houses were submitted to the Committee, 3 of which have been issued. With regard to the other 4 houses, the proprietor has intimated his intention of carrying out the necessary repairs.

Applications have been received from the proprietors interested for copies of the Scheme of Assistance in terms of the Act, and up to the end of the year 21 copies had been sent on request.

WATER SUPPLY.

The portion of the district from which the supply is received from Glasgow Corporation embraces the following areas :—Budhill Avenue; Springboig; Sandyhills; North Mount Vernon; Colston and part of Bishopbriggs; Auchinairn; part of King's Park at Bankhead; Rutherglen; Farme and Eastfield; and part of Burnside. The supply to these areas during the year was satisfactory, and no serious complaints were received.

A supply from the Middle Ward District Committee is obtained for part of Burnside and part of Glenboig. This was satisfactory, no complaints having been received.

The supply to the residential part of South Lenzie is, by arrangement, provided by the Commissioners of the Burgh of Kirkintilloch, and was satisfactorily maintained during the year.

Cadder Special District.—Complaint was received regarding the want of pressure at the Bowling Green, Bishopbriggs, and the following report thereanent was submitted by the Engineers.

"The occasional want of pressure at the Bowling Green is an "indication, quite consistent with the development of the neighbour- "ing part of the district, that the 4-inch gravitation water pipe in "the Kirkintilloch Road, between Balmuildy Road and Kenmure "Avenue, is becoming overtaxed.

"Kenmure Avenue is now built up. Brackenbrae Avenue is built "up on both sides. Kenmure Crescent is in course of development. "Crosshill Road is now completed through to Wester Cleddens Road, "and a new street is about to be formed off Kenmure Avenue at the "entrance to the golf course. All those new houses built, or in course "of erection, can be supplied with gravitation water supply if the "pipe capacity in Kirkintilloch Road is maintained, and in the "interest of economy gravitation water should be distributed over "as large an area as is practicable, so as to avoid the cost of pumped "water.

"In our estimate for the current year we included a pipe extension "in Kirkintilloch Road, as follows:—

(1) Proposed 6-inch main from Messrs. Blackie & Son's works to Kenmure Avenue—distance, 1,540 yards. Approximate cost, £1,925.

(2) Alternatively to above—proposed 6-inch main from Balmuildy Road to Kenmure Avenue, a distance of 510 yards. Approximate cost, £625.

"Neither of these two schemes have been carried out, but the time "has arrived when one or other of the proposed extensions has become "necessary.

"We are of opinion that the first and more expensive alternative "might be postponed, provided that the existing 4-inch pipe from "Crosshill Road to Kenmure Avenue was scraped, and our recom- "mendation would therefore be for the 6-inch pipe in Kirkintilloch "Road, from Balmuildy Road to Kenmure Avenue, at a cost of £625, "and scrape the existing 4-inch pipe from Crosshill Road to Kenmure "Avenue, a distance of 570 yards, at a cost of £85."

It was agreed to scrape the pipe meantime, and this has since been carried out.

To expedite the work for the relief of unemployment the Engineers submitted, including the aforementioned schemes, the following work

which could be carried out to improve the pressure and supply throughout the district:—

The small extensions of mains (1) Brackenbrae; (2) in the neighbourhood of Bearyards Farm, Bishopbriggs; and (3) in Mount Harriet Drive and Farm Road, Stepps, at an estimated cost of £300 in all.

The Committee, after an expression of their views and having regard to the development which is proceeding in the Bishopbriggs area of the district, agreed to recommend that, provided a substantial grant is given by the Unemployment Grants Committee, the work of laying the 6-inch main from Messrs. Blackie & Son's works to Kenmure Avenue, at an estimated cost of £1,925, and the three minor extensions referred to, at an estimated cost of £300—amounting in all to £2,225, with the addition of the sum of £350 to meet engineering inspection and contingencies, amounting in all to £2,575, be proceeded with as a scheme for the relief of unemployment, and instructed the Engineers to prepare a plan and the necessary information to enable application to be made for a grant.

The Committee further instructed the Engineers to report as to any other works which might be carried out in Cadder Water District, in the way of extending mains or relaying new mains in place of pipes which have become, or may soon become, inadequate, as schemes for the relief of unemployment on the footing of substantial grants being obtained.

REPORT BY WATER SUPERINTENDENTS.

Southern Section.

The total quantity of water registered during the year, for all purposes, at Lethamhill and Glenboig meters was 166,682,000 gallons, which includes 4,880,000 registered at Glenboig, showing a decrease of 6,942,000 gallons as compared with last year

The average daily consumpt for all purposes was 456,663 gallons, as compared with 475,682 gallons last year, showing a daily increase of 19,019 gallons.

The consumpt for all purposes, excluding Gartloch Asylum and trade purposes, was 111,057,200 gallons, showing a daily consumpt of 304,266 gallons.

The population of the district, including part of the Northern Section, supplied by Lethamhill meter, taken as 10,728, shows a daily consumpt per head, for all purposes, at 42·56 gallons.

The daily consumpt per head, excluding Gartloch Asylum and trade purposes, was 28·25 gallons.

The iron piping in the district was increased by the District Committee during the year in Third Avenue, Steppshill, Stepps, by 100 yards of 3-inch piping and 33 yards of 2-inch piping. This brings the piping in the district up to 53 miles 1,311 yards.

There were 28 connections made to water mains, 11 for domestic supply and 17 for building or other purposes.

Northern Section.

The total quantity of water registered during the year was—Lochfaulds meters (gravitation supply), No. 1 meter, 4,185,000 gallons; No. 2 meter, 17,889,000 gallons; Balornock meter (pumped water), 21,741,000 gallons; and at Kenmure meter (pumped water), 5,689,000 gallons, giving a total consumpt through the four meters of 49,504,000 gallons.

The average daily consumpt, for all purposes, was 135,627 gallons. being an increase of 42,163,000 gallons as compared with last year. Taking the population at 3,886 (Police Census), the consumpt is equal to 34·90 gallons per head per day.

The iron piping in this section was increased by laying 162 lineal yards in Crosshill Road, 550 lineal yards in new street off Boclair Road, Bishopbriggs, and 60 lineal yards in Kenmure Avenue bought by the Committee. The total length of iron piping in the district now amounts to 37 miles 1,380 lineal yards.

There were 34 connections made to the water mains during the year, 21 for domestic and 13 for other purposes.

DRAINAGE.

SPECIAL DRAINAGE DISTRICTS.

Barony.—Westthorn Sewage Purification Works.—The position at these works is still the same as was stated in last year's report. A large quantity of the crude sewage is still being discharged to the River Clyde owing to the inability of the sewage works to deal with it in the aerating tanks.

Considerable trouble has been experienced during the year in dealing with the sludge. Although six additional sludge pits were provided we are always at a loss for accommodation, due to the

difficulty in getting farmers to remove the sludge at all times of the year.

A breakdown in one of the compressors took place, owing to a nut becoming loose and causing damage to one of the valves, which had to be replaced.

A report by the Engineer was submitted early in the year to provide enlargement of the settling tanks; provision of storm overflow weir and connecting to the existing outlet sewer, at a cost of £2,200. This would ensure that any overflow to the river would be tanked and solids removed before discharge.

The above scheme has now been superseded by the following scheme, submitted by the Engineers to the Committee:—

"In our estimate for the year we allowed a sum of £2,200 for "enlargement of the pre-settlement tanks, &c.

"If the application for a grant to relieve unemployment is likely "to be entertained there is additional work at Westthorn which will "soon become urgent. The flow at Westthorn has increased con- "siderably in recent years. The works at present deal with 1,200,000 "gallons per day. Up to that point an effluent can be obtained which "conforms to the standard laid down by the Sewage Commissioners "in their final report. When the sewage flow to the tanks exceeds "that figure the effluent becomes cloudy and falls below the required "standard and the discharge of an excess, which is now more or "less from the storm overflow, has been the cause of occasional "complaints from the Glasgow Corporation.

"We have been in communication with Messrs. Activated Sludge, "Ltd., who supplied the plant for the process now in operation, and "have prepared estimates for an extension which would make adequate "provision for the present and future requirements for some years "to come.

"The estimate of costs amounts to £9,000, and includes:—

(1) Detritus tanks of greater capacity than those in use.
(2) A storm water overflow and pipe.
(3) The equipment of the third tank for air treatment.
(4) The construction of six new settlement tanks.
(5) Two additional air lifts.
(6) The extension of the power-house and the addition of one oil engine and air-compressor unit.

"We suggest that application be made for a grant towards an "expenditure of £9,000 for the extension and improvement of these "works."

A chokage took place in the sewer near where it joins the outfall at the Camlachie burn, and receives the sewage from Lightburn Hospital and from houses in the Scottish National Housing Scheme at Springboig. On opening the sewer it was found that the obstruction was caused by debris, consisting of burnt wood and pieces of brick which had gained access to the sewer from an inspection manhole at the site of the houses, in the housing scheme, which had been burned down. A claim was made to the Scottish National Housing Trust, Ltd., to meet the expense incurred, but the Secretary on their behalf denied liability, and there the matter ended.

The sewer manholes were inspected and dustpans cleaned out during the year.

Two sewer connections were made during the year.

Rutherglen (Landward).—Needless to state the surcharged condition of the main intercepting sewer still remains the same, and what was said in my last year's report can only be repeated. Unless the whole matter is fully and seriously considered and a definite scheme of improvement carried out, despite the obvious difficulties of the task, there is no doubt that with the yearly increase in building and the resultant additional drainage the conditions will become so serious as to greatly impede any endeavour which might be made to remedy the matter.

Towards the end of the year that portion of the sewer in Downiebrae Road was cleansed as well as possible. A considerable amount of grit and silt was taken from the manholes. There is, however, still great need for thorough cleansing to be carried out in the lower reaches, without which no really lasting improvement can be made in cleansing the higher portion of the main intercepting sewer.

There is no doubt that the over-taxing of the main sewer could be very much reduced if by some means the trade sewage from the large laundry and from the two large paper works were separately treated and the effluent discharged to the River Clyde.

A complaint was received from the Glasgow Sewage Department regarding the overflows from the intercepting sewer being continuously in action. It was arranged thereafter to have the County portion of the sewer cleansed, and a request was made to the Engineers, Messrs. Warren & Stuart, to arrange for the cleansing of that portion of the sewer within the Burgh of Rutherglen, and to consider also the construction of an additional scour valve at Messrs. White's works. This work had not been commenced at the end of the year.

As reported last year, surcharging of the sewer was again complained of during the year at Springfield Park, Burnside. This will not be overcome until the new sewer from Bankhead, Mill Street, to Blairbeth Road is constructed.

Crosshill burn was again the source of complaint regarding pollution caused by sewage discharged from houses within the Middle Ward area. This also will not be remedied until the Mill Street sewer is constructed, or until the Middle Ward District have a sewer laid from Duke's Road for the purpose of draining the houses referred to. For the purpose of alleviating the smell caused by the pollution the burn was thoroughly cleansed during the year.

At Farme Housing Site it was discovered during excavation for the foundations that a 3-feet by 2-feet culvert was situated directly on the line of the buildings. This culvert appeared to take surface water and a certain amount of waste drainage, probably from the Burgh of Rutherglen. It was agreed to divert this culvert from the housing scheme by means of a 12-inch concrete pipe sewer. This was accomplished during the year.

The following is a list of the private sewers constructed during the year :—

9-inch sewer from Burnside Road to Burnside Loch.

This is a short length of sewer, and the Committee agreed that it would be unadvisable to take it over as a public sewer when completed.

Sewers in the Western Heritable Investment Company's Housing Scheme at Bankhead, Rutherglen.

9-inch sewer at Blairbeth Road, for a distance of 158 lineal feet, for Mr. George Forrester, Burnside.

The Committee agreed to take over this sewer on the usual conditions, when there was sufficient assessment to meet interest and sinking fund.

It was observed accidentally that a private sewer laid had not been thoroughly and efficiently connected to the outlet, which was also a private sewer. The Engineer was accordingly notified that in the event of a request by him to have this sewer taken over it would be refused, until such time as the defective portion was repaired to the satisfaction of this department.

The undermentioned sewer was taken over as a public sewer during the year :—

9-inch sewer in Stirling Drive and Hillend Road, Burnside.

The cost of this sewer was £286 4s., but, as the total amount which can be derived from the available assessable valuation is not sufficient to repay this amount, the builders were offered £180 as a full and final payment, and this was accepted.

It was agreed to construct a 15-inch sewer from Mill Street, Rutherglen, to Blairbeth Road, Burnside, but this had not been commenced at the end of the year.

Fourteen connections were made to private sewers, but opportunity was only given to this department to inspect seven of these. Eight connections were made to public sewers during the year, and inspected.

The manholes on the sewers were examined, and one broken cover was replaced.

A Company tipping rubbish over the sewer was notified to have the manholes raised to the new level of the ground.

One drainage system was smoke-tested during the year, on request, and minor defects disclosed given attention.

Notification was made to the Middle Ward Engineer regarding an escape of gas, the smell from which was emanating from a sewer manhole through which a gas pipe had been at one time laid. This was at once repaired.

Bishopbriggs and Auchinairn.—The sewers throughout the district continue in good working order.

The manholes were inspected and dustpans cleaned out during the year.

With regard to the infiltration of water to the sewers, it was stated in last year's report that the Engineer was investigating the matter with a view to finding the source, and during the year the following report was submitted to the Committee :—

" We have, during the last eighteen months, made several systematic " inspections of the Bishopbriggs and Auchinairn sewage system with " a view to locating and stopping leakage of subsoil or other water " into the sewers. A number of manholes where there was evidence " of leakage through the joints of the brickwork have been re-pointed " by our contractor. At Jellyhill the storm water of the Jellyhill " burn was in time of wet weather finding its way into the estate

"sewer and thence to the sewage works. There was some evidence "that the joint of the sewer pipe had been opened up to take away "the surplus water, but this could not be proved. The estate con- "tractor made good the work. A Glasgow Corporation water pipe "in Kirkintilloch Road, about 200 yards south of the L. & N.E. "Railway, was found to be leaking heavily, and the probability is "that the water was finding its way into the sewer as it did not "show on the surface. The burst water pipe has now been repaired, "but we have not yet had the sewer opened up for inspection. A "manhole on the sewer from Messrs. Blackie & Son's works was found "to be leaking, and has been repaired by their contractor.

"The discharge of the outfall sewer at the sewage works is down "to 15,000 gallons per hour during the day, and this may be "regarded as normal, taking into account the considerable develop- "ment within the Drainage District.

"There has been very little rain since the middle of December "last, and we must wait for wet weather to see the result of our "operations. There are still some places where we suspect water is "getting access to the sewers, and these are having our attention."

The Committee continued the instruction to the Engineers and myself to pursue the matter, and from observations at the works the main source of infiltration has still to be found.

Sewage Purification Works.—During the year we had continued trouble with the bulking of sewage in the pockets of the aerating tanks. This occurs especially in a heavy flow during excessive rain, and was particularly noticeable when the flow exceeded 25,000 gallons per hour.

There were several breakages of clutch rings. This occurred so frequently that the attention of the makers was drawn to the fact. They replied that the clutches and rings now in use were of a larger type, and after negotiations, they agreed to supply the larger type of clutch free of charge, provided we paid the cost of an extra ball-race for each gear-box. This we agreed to and the larger clutches and rings are now installed, and have been a decided improvement.

In view of the action of the works during the year the following report was submitted by our Engineers:—

"Since the sewage works were constructed improvements have been "effected in the manner of separating the sludge from the finished "effluent. According to the original design the effluent is collected

"in pockets at each of the four corners of the six tanks, where "agitation takes place. From time to time the sewage becomes septic, "and when this happens the sludge tends to rise and pass away with "the clear effluent, consequently it has been advisable to dispense "with these corner pockets and separate the sludge from the clear "effluent in separate tanks, and all recent works of this type are "being constructed on this principle."

The estimate of the cost of two sludge tanks for this purpose, with the necessary plant, is £4,000, and it has been suggested that application be made for a grant of £5,000.

They further reported that the population within the Special District is growing rapidly, and they have reason to believe that growth will continue, and if the proposed alteration can be carried out it will not only make the works more efficient but it will increase the capacity by 100,000 gallons and make the works sufficient for a population of 9,750.

The Committee, after consideration, agreed that the works indicated should be carried out, on the understanding that a grant will be given by the Government, and recommended accordingly.

The following sewers were taken over as public sewers :—

12-inch sewer in Brackenbrae Avenue, running westwards for about 60 yards from a point 123 yards from the west side of Brackenbrae Road, at a cost of £115 15s. 5d.

12-inch sewer in Brackenbrae Road, from the centre of Brackenbrae Avenue running northwards to Kenmure Crescent, a distance of 170 yards, at a cost of £280 13s. 4d.

The following extensions of sewers were carried out during the year :—

New 12-inch sewer in Balmuildy Road, in a westerly direction to communicate with the existing sewer along the west side of the Bishopbriggs burn.

New 12-inch sewer in new road between Wester Cleddens Road and Crosshill Road.

Extension of 12-inch sewer in Brackenbrae Avenue westwards.

New 9-inch sewer in an intended new road leading north-eastwards from Kenmure Avenue generally along the line of the avenue to Kenmure House.

Eight connections were made to the public sewers and eight connections to private sewers.

Eight water-closets were erected and four drainage systems smoke-tested.

Stepps Drainage.—A chokage took place in the private sewer in the lane at the rear of Whitehill Avenue, which was cleared after being opened at several places. The gradient of this sewer is very flat and the sewer may eventually have to be lifted and re-laid.

The sewers and manholes were inspected and cleaned out during the year.

Sewage Disposal Works.—The sewage tanks were cleaned out twice during the year, but as no sludge from the pits has been removed by the farmer for a considerable time the pits are now full.

Mention was made in last year's report of the proposal to increase the filter area and provide further accommodation for sludge, and further reports were submitted by the Engineers to the Committee on the following points:—

"To increase the capacity of the filter beds at the purification "works, the provision of additional automatic sewage distributors, "and the renewal of filtering material, the acquisition of ground to "allow of an extension to the filtering bed and sludge pits, all at a "cost of £2,000."

At a later date a further report was submitted as to increasing the capacity of the filter beds and the provision of additional automatic sewage distributors on a larger scale, and stating that the Garnkirk burn, which receives the effluent, affords a very little measure of dilution, and that considerable developments have in recent years taken place, the population now being estimated at 2,865.

One of the difficulties at the existing works is the limited depth of the filter beds, this being governed by the lowest levels which have to be drained by the outfall sewer, which is now operating to the full extent of its capacity. Nearly one-half of the sewage of the district can be intercepted at a higher level in Lenzie Road, and it is proposed to continue to treat approximately one-half at the existing low level, and construct an additional outfall sewer and additional sewage works at a higher level, but alongside and to the east of the existing works, which will allow the construction of filter beds of a more suitable depth with an adequate head for operating distributors, and estimating the total cost of the larger scheme at £5,000.

The Committee, after expression of views, agreed that the works indicated in the Engineers' report should be put forward for the relief of unemployment, on the understanding that a sufficient grant will be given by the Government, and recommended accordingly.

One sewer connection was made during the year.

Chryston and Muirhead.—The Bridgend Sewage Works were thoroughly cleansed twice during the year. One tank was cleansed a third time, but owing to the large accumulation of sludge in the pits the whole works could not be thoroughly dealt with on the third occasion, and it was only by utilising part of the ground inside the works for the sludge that this tank could be cleansed.

The unsatisfactory state of the trays and filters at these works was reported on towards the end of last year, and the work of complete re-levelling was commenced and completed early in this year. This has considerably improved the flow of the tank effluent over the filter material. Despite this, however, the filter material cannot be kept in a clean condition and free from ponding. The works here are overtaxed, with the result that the effluent is not so satisfactory as it should be. This matter, however, has been taken up by the Engineers, and application has been made for a grant for the work of improvement necessary, viz. :—

> Extension of the sewage works and filters, provision of automatic sewage distributors, and extension of sludge pits, &c. All at an estimated cost of £3,000.

Complaint was received regarding smell from the sludge accumulation, but as the farmer could not remove this owing to the unsuitable weather conditions, copious use of chloride of lime was made, with satisfactory results.

Bridgend works are repeatedly disorganised owing to the flooding of the Bothlyn burn sometimes over the footpaths in the works, with the result that the effluent is held back in the filters.

Moodiesburn tank was cleansed once during the year, and the burn to which the effluent discharges thoroughly cleared.

Drumcavel tanks were also cleansed once.

Three chokages on the sewers were cleared during the year. One was caused by the roots of trees growing through a flagstone cover of a manhole situated in Bedlay Estate plantation. Another was caused by the scaling of the underside of a Caithness flagstone cover and the scale partially blocking the sewer. The third was a very

bad chokage, caused by accumulation of road grit, &c., which had gained access to the sewer through an open cover. These chokages were all observed and attended to before any serious damage had resulted.

A request was made by the Parish Council to allow drainage from the Muirhead Public Park to enter the sewer. This was refused, and the drainage was connected to an old surface water drain at the bowling green.

Two permits were granted for connections to public sewers, and the work carried out. One permit was also granted to connect to a private sewer.

Six drainage systems were smoke-tested during the year and defects made good.

Five water-closets were introduced.

Gartcosh.—The sewage works were cleansed three times during the year and the sewer dustpans attended to.

The manhole at the sewage works, which was reported to be defective last year, was re-built. Towards the end of the year the drain from Messrs. Smith & M'Lean's works was giving considerable trouble by becoming full of ashes, &c., and choking up. This was apparently due to the settling of the ash-bank through which the drain is laid, causing breakage of the drain joints. Temporary arrangements were made for direct connection to the Bothlyn burn until the defects were remedied.

A new entrance gateway to the sewage works was erected of more suitable style, to prevent damage by children.

One drainage system was reconstructed and twelve water-closets erected.

South Lenzie.—The sewers in this district are the property, and under control, of the Commissioners of the Burgh of Kirkintilloch.

During the year flooding took place in the basement of Burnbank Terrace. The matter was taken up with the Kirkintilloch Commissioners, and they agreed to lay an overflow sewer from the manhole on Auchinloch Road to the Cult burn.

Glenboig (Joint Scheme).—There is nothing to report regarding the suggested scheme of drainage for Glenboig. The position is just as was stated in last year's report, but developments are expected early next year.

Carmunnock.—The sewage works were cleansed twice during the year.

Owing to the extensive building operations which are going on in this area an extension of the sewage works and erection of filters are necessary. This matter has been taken up by the Engineers, and a request has been made for the Unemployment Grant.

Two connections were made to the sewers during the year.

An instance of how important it is that all sewer connections should be inspected was given during the year. Permit was granted to insert a connection to a pipe on a roadway, and on examination it was found that the connection had been made to the old burn pipe instead of to the sewer. Instructions were immediately given for a new connection to be made to the proper sewer, and this was carried out at once.

Two water-closets were erected during the year, one of them being at a garage workshop for the use of the employees.

One wash-house was erected and necessary drain.

The drain from Gallowhill Farm was exposed when foundations were being laid for new houses to be erected by Mr. A. Aitken on the west side of Gallowhill Road. The estate factors were requested to divert this drain clear of any dwelling-house foundations, and this was successfully accomplished.

Report was made regarding an extension of the sewer required at Pathhead, and, after further inquiry, the Estate Agents agreed to have this work carried out in view of the prospective feuing of the area of ground to be drained.

LIGHTING.

Special Districts.

Rutherglen.—The extension of this district to include that portion of Bankhead within the King's Park Housing Scheme was considered and approved, subject to the consent of the County Council.

Bishopbriggs.—It was agreed to erect further lamps at Jellyhill, and the electric cable having been extended allows of this being carried out.

Stepps.—It was proposed to erect electric standards and lay the necessary cables in Third Avenue. There is no gas supply in this avenue, hence the reason for the illuminant being electricity.

SCAVENGING DISTRICTS.

There are eight Special Scavenging Districts in the Lower Ward, and these include all the populous areas, with the exception of Glenboig.

North Shettleston.—A daily collection is maintained at the tenement property and twice weekly at the National Housing Scheme and Springboig. Two scavengers are employed by the Committee to attend to the two floats, and two horses and men are hired by the day.

Formerly all the refuse was taken to the Glasgow Corporation destructor at Haghill, but since 16th May all refuse collected is being deposited in a coup at Cranhill. This means a considerable saving, as 4s. per ton was charged for burning the refuse at the destructor, whereas the coup is obtained for a rental of £10 per annum.

The coup is being kept in good order, but trouble has already been experienced with a slight fire which was started by some boys setting papers alight before the men had time to cover them. It was, however, dealt with in time and extinguished.

The quantity of refuse removed to the Glasgow Corporation Refuse Destructor at Haghill during the year was 341 tons 14 cwts., and 954 float loads were deposited in the coup. In addition 11 tons of road and mud sweepings were taken to the coup.

The back-courts have been swept as often as time permitted, but it would be advisable that a man be employed wholly on this part of the work.

There has been reiteration in reports for years past regarding the condition of several of the back-courts in Budhill Avenue, and, after considerable communications with the owners of the properties, six back-courts have been asphalted, four having been done the previous year. This has been a great improvement and is much appreciated by the tenants, who formerly had to wade through mud to get to the dustbins and wash-houses.

Eighteen dustbins were supplied during the year.

Bishopbriggs.—The work in this area has further increased owing to the completion of the District Committee's Housing Schemes and the further development of the district. A weekly service is maintained at all the dwelling-house properties, shop refuse is removed

daily, and the refuse from Messrs. Blackie & Son's works is removed twice weekly. The work is carried out by the Committee's two scavengers and horses and men hired from a contractor by the day.

The refuse is still being deposited at the disused pit on the lands of Springfield, and the coup continues to be maintained in good order.

The scavenging of part of the recent extension has been carried out since the month of May, but so far the Committee have made no arrangements regarding Jellyhill and Hilton Terrace. These properties are being rated for scavenging, but the work is still being carried out by the Carron Company, who are the owners.

96 dustbins were supplied during the year.

1,547 cartloads of refuse were deposited in the coup.

Stepps.—The work in this district has been carried out satisfactorily during the year and twice-weekly service is being maintained, despite the fact that the district has been increased considerably by the District Committee's Housing Schemes and private building development.

One scavenger is employed by the Committee and a horse and man hired by the day.

The refuse is still being deposited on the low-lying ground on the west side of Magazine Road.

The roadway at Anniesdale Avenue which has been in a bad condition for some time has now been put into highways condition, and is recommended to be assumed as a public highway.

The coup has been maintained in a satisfactory manner throughout the year.

48 dustbins were supplied during the year.

1,190 cartloads of refuse were deposited in the coup.

Rutherglen.—The work has been carried on by the same contractor as formerly, and whilst there have been occasions, especially during the winter when this department has had to complain regarding the work falling behind, generally the scavenging has been maintained at a fairly high level. Owing to the extensive building which is going on in this area, the time has now come when two horses and carts and five men could be continuously employed throughout the year.

The extension of this district to include that portion of Bankhead within the King's Park Housing Scheme was considered and approved, subject to the consent of the County Council.

Arrangements were completed, on report by this department to the Housing Committee, to have dustbin shelters erected at the housing sites in this area. These had not originally been arranged for and the conditions without shelters were entirely unsatisfactory. Considerable improvement has resulted since these were erected.

Negotiations were proceeding at the end of the year to have the back-courts at Barnflat Street Housing Site surfaced with asphalt or tar-macadam.

One private street was reported on to the Committee under Section 39 of the Public Health (Scotland) Act, 1897, but as the larger portion of this roadway lies within the Middle Ward, it was agreed to ask that joint-action be taken.

Stirling Drive lane at Burnside was again the source of complaints regarding the generally muddy condition in which it is often allowed to develop. Letters were sent to all responsible owners abutting on the lane, and the conditions were somewhat improved. Unless, however, this lane is thoroughly bottomed and macadamised, I am afraid complaints will not be prevented.

100 dustbins were supplied during the year and 2 ashpits demolished.

18 common passages and staircases were whitewashed during the year.

1,115 tons of refuse were collected and delivered at the destructor and 150 tons to coups in the district.

Chryston and Muirhead.—This work has been carried out in quite an efficient manner, but I must point out that, although for years past I have repeatedly stated that twice-weekly cleansing should be given to tenemental property, it is only since May, or thereabouts, of this year that this has been attempted and is apparently being carried out. I can only again state that a properly covered scavenging cart should be supplied for this district. It is the most hygienic and would also be found to be more economical.

Complaint was made during the year regarding infestation of rats from the Lilybank coup, and it was pointed out to the Special

Scavenging Committee that this coup, being used within 50 yards of the public highway, was a statutory nuisance, and that generally too large an area was being used at once and not thoroughly top-dressed.

31 dustbins were supplied during the year and a new dustbin shelter at one property.

1 privy and privy-midden was demolished.

1,150 cartloads of refuse were deposited in the coup during the year.

Gartcosh.—The work is still being carried out satisfactorily by private contract. The contractor has been using motor haulage with excellent results. Intimation had to be made to the contractor, however, for care to be taken in having the refuse vehicle thoroughly covered over during transit of refuse to the coup.

3 privies and 1 privy-midden were demolished during the year.

13 new dustbins were supplied.

1 ashpit was demolished.

Great improvement has been carried out in recent years in this village by demolition of ashpits, privy-middens, and privies, and the substitution therefor of dustbins and water-closets.

750 cartloads of refuse were deposited in the coup during the year.

Carmunnock.—This work has been carried out without complaint during the year, and there is now a great improvement in the general sanitary condition of the whole village.

South Lenzie.—The work is carried out by private contract, a weekly collection is maintained and is entirely satisfactory.

The refuse is being deposited in an old quarry at Boghead. Complaints from residenters in the vicinity were made at one time, but I am pleased to report that the complaints have now ceased.

We are still continuing our efforts to substitute the ashpit by dustbins and are meeting with a measure of success.

SPECIAL DISTRICTS.

The Special Districts for the purposes of Water Supply, Drainage and Sewage Disposal, Scavenging and Lighting, are shown in the following table. The rates of assessment (half owners, half occupiers)

for the year 1928-29 are also shown. A blank in the assessment column means that no district has been formed for the special purpose indicated :—

District.	Parish.	Water.	Rate of Assessment per £ Drainage.	Sewage Purification.	Scavenging.	Lighting.
Bishopbriggs and Auchinairn.	Glasgow and Cadder.	1/4	1/3	—	5d.	6½d.
(*a*) Cadder.	do.	1/4	—	—	—	—
Carmunnock.	Carmunnock.	3/1	1/4	—	10½d.	7½d.
Chryston and Muirhead.	Cadder.	1/4	1/-	—	6d.	4¼d.
Gartcosh.	do.	1/4	6d.	—	3½d.	—
North Shettleston.	Glasgow.	(*b*) Levied by Glasgow. (*e*)	6·38d.	(*f*) 11d.	5½d.	5½d.
Rutherglen.	Rutherglen.	do.	2½d. (*e*)	5·38d.	4¼d.	4d.
South Lenzie.	Cadder.	5½d.	4d.	—	3½d.	5¾d.
Stepps.	do.	1/4	7¾d.	—	4d.	4d.
Glenboig.	do.	—	—	—	—	6½d.

NOTES.—(*a*) The Cadder Water Supply District includes part of Bishopbriggs, Cadder Village, Auchinloch, Mavis Valley, Jellyhill, Stepps, Chryston and Muirhead, Bridgend, Mossvale, Heathfield, Garnkirk, Moodiesburn, Mollinsburn, Gartcosh, and Garnqueen; (*b*) Glasgow Water is supplied to Budhill, Springboig, Sandyhills, North Mount Vernon, part of Carntyne, Lightburn, Colston, and part of Bishopbriggs, in Glasgow Parish; Auchinairn, in Cadder Parish; and Farme, Eastfield, and part of Burnside, in Rutherglen Parish; (*c*) Barony Drainage; (*d*) no assessment for Drainage; (*e*) Glasgow Sewage Purification rate assessment; (*f*) Southern portion of District outwith Glasgow Sewage Purification Area.

NUISANCES.

The following summaries show the number of nuisances dealt with in each parish and the number of intimations and notices served, &c. :—

PUBLIC HEALTH (SCOTLAND) ACT, 1897.

	Glasgow (late Barony).	Cadder.	Rutherglen.	Carmunnock.	Total
Recurring Nuisances under Section 16, Sub-secs. 2, 5, and 7,	5	30	77	5	117
Structural Nuisances under Section 16, Sub-secs. 3, 4, 6, 8, 9, and 10, - -	1	4	14	—	19
	6	34	91	5	136

Intimations served in terms of Section 19 of the Public Health Act, 1897, - - - - - - - -	136
Notices served in terms of Section 20, - - -	3
Notices served in terms of Section 40, - - -	1
Notices served in terms of Section 117, of the Burgh Police (Scotland) Act, 1892, - - - - - -	60
Notices served in terms of Section 23, of the Burgh Police (Scotland) Act, 1903, - - - - - -	3
Number of letters calling attention to insanitary conditions in addition to those dealt with by formal intimation, - - - - - - - - -	342
Letters issued under the Milk and Dairies (Scotland) Act, 1914, - - - - - - - - -	54

In connection with the above statement, 9,018 visits of inquiry and inspection were made for the detection of nuisances and in connection with complaints received, which numbered 106. The majority of nuisances dealt with were, as usual, due to choked or otherwise defective drains.

Complaint of infestation by rats of a tenement property was made during the year, and, despite the supply of poison and having all the holes filled up, the complaint continued. It was reported in the first complaint that a child had been bitten on the fingers by a rat and the wound had become septic. There was no doubt truth in this assertion. After everything that could be done was accomplished by this department, one tenant complained to the Department of Health, who requested a report on the matter. All the houses in the tenement were visited in company with the Assistant Medical Officer and the tenants questioned, but no confirmation of general infestation was obtained. One tenant only made definite complaint, and as everything had been done that was possible in this house the matter had to be left as it stood and reported on accordingly. The original complainant has now removed and no further trouble has been notified.

A serious type of nuisance developed during the year in one of the housing schemes occupied by tenants who had removed from condemned dwellings. Bugs were complained of in one house, and, after a thorough and general inspection of all the houses, it was found that 7 houses out of 30 were more or less in a badly infested condition with the vermin. There is no doubt whatsoever that the bugs were brought to the new houses in the bedding of the tenants evicted from the old and uninhabitable dwellings which they had

previously occupied. Considerable difficulty was experienced in ridding the houses of the vermin, and it was only after repeated spraying with "Cimexin," stripping of picture rails, skirting, and defective plaster work that the bugs were ultimately eradicated. No further complaints have been received since these remedial measures were carried out.

Complaint was made during the year to the owners of a coup regarding nuisance being created. This was being caused by the attendant at the coup who, in an endeavour to make manure for sale, was storing up strawboards and mixing this material with the cesspool cleanings, comprising raw fish offal, from Messrs. Davidson's works. When a large quantity of this was thoroughly mixed and allowed to lie a most obnoxious odour permeated the atmosphere. Sometimes the strawboards were set on fire, the resultant smell could only be described as vile. This practice was prohibited and has now ceased. Nuisance, however, was still created at this coup by the casual and careless dumping of the fish cleanings over the face of the coup, and it was not until after considerable trouble that the conditions were improved and systematic tipping and top dressing instituted. To make matters worse, during the period of these nuisances being created at this coup fire broke out where the fish cleanings had been previously spread and again obnoxious odour was released to the atmosphere. However, by trenching and filling up the smouldering portion of the coup was ultimately got under proper control.

A curious complaint of offensive smell was received from tenants residing in a tenement property adjoining a small laundry. On investigation it was found that every week a supply of bags from a distillery was received for washing and cleaning. These bags had contained distillery mash, and whilst lying in the yard prior to washing a very obnoxious odour polluted the immediate surroundings. The laundry proprietor was instructed to have the bags washed immediately on delivery, otherwise the practice would require to cease. No further complaints were received.

Another rather interesting point was brought to our notice during the year. A dog had been run over by a motorist, who had partially buried the carcase in a roadside plantation. Complaint was received regarding this, but as the author of the nuisance could not be traced the nuisance fell to be removed by the owner of the ground. The

matter, however, was finally dealt with by the Public Health Department.

A number of observations were carried out of smoke pollution in the Rutherglen area, and in several instances a copy of the smoke-chart was sent to the firms responsible, with resultant good. The engineer in charge of the electricity grid at Dalmarnock, the property of the Electricity Commissioners, complained during the year that the smoke from certain chimneys in the neighbourhood of the grid was causing carbon deposit on the delicate system of wiring at the station. Observations are still being made, and any reason for complaint is immediately notified to the responsible firms.

A complaint was received during the month of July from two tenants occupying houses in the Second National Housing Scheme at Springboig, Shettleston, regarding infestation of a small insect on the window facings of the house. This scheme comprises the steel houses erected recently under the direct Government Grants, and, on investigation of the complaint, it was found that the inside wood facings of the windows of both houses were polluted with small red insects. The affected houses comprise one block, and the following are a number of points noted during investigation :—There was only one apartment in each house affected, which was the parlour apartment facing south-west. On first investigation the insects were observed on the woodwork of the windows, and, after fumigation with sulphur, the infestation was reduced and no insects were found behind the wood facings, but large numbers were discovered adhering to the steel skirting at the bottom edge which overhangs the concrete foundation. The complaint was not general and only affected these two houses. It was arranged to have the steel sheeting thoroughly painted and mastic inserted between the sheeting and the concrete. It was also arranged to have the soil against the front wall delved with a mixture of lime. A number of the insects were sent to the laboratory with the object of assisting in determining what they were and what was their usual habitat.

HOUSE DRAINS.

317 visits were made relative to the condition of house drains and the provision of water-closets, &c. 125 inspections were made of the drainage systems of properties, including visits during work of repair and reconstruction. 7 drainage systems were found defective,

all of which were remedied. In addition 17 drainage systems were reconstructed and 33 water-closets provided. 18 applications of the smoke-test were made to 15 properties. 23 connections were made to public sewers, 28 connections to private sewers, and 180 visits to the several sewage disposal works in the district.

In accordance with the Department of Health's circular, of 17th January, 1927, I submit the following table :—(1) as to the number of common water-closets in use ; (2) number of houses without water supply and sink inside the house ; (3) number of (*a*) dry-closets, (*b*) privy middens, (*c*) ashpits, showing for each separately the number serving 2, 3, 4, 5, and more tenants respectively

COMMON CLOSES, STAIRS, AND WATER-CLOSETS.

In connection with the By-laws relating to the cleansing of closes, stairs, and water-closets at tenement properties, 310 inspections were made. 60 notices in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were issued, requiring owners to whitewash closes and staircases, and 72 closes and staircases were whitewashed. 39 date cards were issued to tenants in relation to sweeping and washing stairs. In addition, 16 letters of warning were issued regarding improperly fouling and abusing water-closets.

INFECTIOUS DISEASE.

548 visits of inquiry were made by the Sanitary Officers ; the disinfection of 203 apartments and 196 sets of bedding and articles of clothing was carried out. 7 sets of bed and bedding were removed for disinfection. 651 intimations to parents and school teachers were issued.

OFFENSIVE TRADES.

The number of offensive businesses on the register at the close of the year was 5. The nature of the businesses comprise the following :— 2 soap works at Bishopbriggs, 1 fish meal and manure work at Rutherglen, 1 blood work and 1 tallow and gut work situated at Carntyne, Shettleston.

One of the soap works at Bishopbriggs continues to produce soap in small quantities, the other is only working at intervals and is now making soap powder.

TABLE SHEWING NUMBER OF OCCUPIED HOUSES IN POPULOUS PLACES WITHIN THE DISTRICT AND THE NUMBER OF COMMON WATER-CLOSETS, DRY-CLOSETS, PRIVY MIDDENS, AND ASHPITS SERVING 2, 3, 4, AND 5, OR MORE TENANTS RESPECTIVELY; ALSO THE NUMBER OF HOUSES WITHOUT WATER SUPPLY AND SINK INSIDE THE HOUSE.

1929.	Number of Occupied Houses.	WATER-CLOSETS.							DRY-CLOSETS.								PRIVY MIDDENS.											ASHPITS.								Houses without Water and Sink inside.
LOCALITY.		Total	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	8	12	14	15	Total	1	2	3	4	5	6	8	12	
Rutherglen, ...	1268	193	11	168	8	3	—	3	6	6	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	3	2	—	1	—	—	—	—	—	19
Chryston and Muirhead, ...	818	53	12	16	25	—	—	—	3	1	1	—	1	—	—	—	3	1	1	—	1	—	—	—	—	—	—	—	21	17	—	2	—	2	—	—	—	2
Gartcosh, ...	673	25	20	—	5	—	—	—	12	—	—	12	—	—	—	—	3	—	—	—	—	—	—	—	—	3	—	—	2	2	—	—	—	—	—	—	—	25
Bishopbriggs and Auchinairn,	1027	59	15	38	6	—	—	—	5	—	2	1	2	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	18	6	1	—	1	10	—	—	—	5
*Carmunnock, ...	244	25	13	9	2	—	1	—	2	1	—	1	—	—	—	—	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10
Stepps, ...	714	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
So. Lenzie, ...	479	9	4	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	1	5	—	—	—	—
Shettleston, ...	1171	34	2	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mollinsburn, ...	56	—	—	—	—	—	—	—	19	5	10	3	1	—	—	—	10	4	—	2	—	1	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	5
Heathfield, ...	61	—	—	—	—	—	—	—	14	—	—	—	14	—	—	—	4	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	56
Mavis Valley and Jellyhill,	225	8	8	—	—	—	—	—	37	—	10	27	—	—	—	—	3	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	93
Glenboig, ...	83	4	4	—	—	—	—	—	20	—	5	2	8	1	—	4	10	—	2	1	—	—	—	—	4	1	—	2	2	—	1	—	—	—	1	—	—	38
TOTALS, ...	6819	412	89	270	46	3	1	3	118	13	28	46	26	1	—	4	37	7	3	4	1	2	3	1	6	4	4	2	52	27	2	3	2	17	—	1	—	253

* Tenants using Bins.

The blood work continues to be carried out in a satisfactory manner. No complaints were received during the year.

The tallow and gut work continues to be carried on in a satisfactory manner.

The fish meal and manure work continues under strict supervision. Again it is my duty to repeat that the necessity for By-laws governing the conduct of the business of the fish meal, manure, and guano factory is becoming more essential every year.

Numerous complaints were made during the year to the manager regarding small defects, and these were invariably given attention. If it were not, however, for the regular and systematic inspection of the premises more serious trouble would arise. The slightest carelessness in stocking raw material or allowing escape of vapours from the concentrators gives rise to complaint, and in many instances these slight defects are allowed to go on until a visit is paid by the inspector, and the cause of the nuisance pointed out to the manager.

Towards the end of the year an interview was obtained with the owner of the premises and definite request made to have certain alterations and improvements carried out. The owner stated that it was his intention to remove his works to new premises at Falkirk within the next six months, and requested that, with the exception of minor alterations, the extensive improvements required might be delayed. This was agreed to on condition that the removal would not be delayed longer than six months.

PUBLIC SCHOOLS.

The public schools were visited as time permitted and found in good order.

A regular system of painting and cleaning is carried out by the Lanarkshire Education Authority, thereby ensuring that every school is kept up to date.

PRIVATE STREETS.

In connection with Section 39 of the Public Health (Scotland) Act, 1897, 11 inspections were made of private streets and lanes throughout the district. In addition, 42 letters of warning were sent regarding the unsatisfactory condition of a private lane.

The condition of the private portion of the roadway at the west-end of Budhill Avenue, Shettleston, has been a source of trouble for years. This street was only formed for half its width, and, with the traffic continually on the same part of the road, during wet weather it was a quagmire. I am pleased to report, however, that the road has now been put into highway condition.

The following private streets were, after repair, assumed as public highways :—

Rutherglen—

Baronald Street.
Barnflat Street.
Avenue Street.
Montraive Street.
George Gray Street.

Burnside—

Underwood Road, from Southhill Avenue to Duke's Road, extending 134 yards.

Garnkirk—

Knowe Road, from Cumbernauld Road for a distance of 52 yards.

Lenzie—

Glenbank Road, from Beechmount Road to Glenhead Road, extending to 180 yards.

Stepps—

Anniesdale Avenue, from Whitehill Road to Blenheim Avenue, extending to 183 yards.

Auchinairn—

Springfield Avenue, from Auchinairn Road northwards and north-eastwards to the entrance to Springfield House, for a distance of 52 yards.

Shettleston—

Budhill Avenue, from No. 106 westwards to No. 162, a distance of 151 yards.

Greenfield Place, from Budhill Avenue northwards, a distance of 26 yards.

FACTORIES AND WORKSHOPS.

No communications were received from H.M. Inspector of Factories during the year. 122 visits were made to factories and 20 to workshops. Inspections were made of sanitary conveniences, which were generally found in good condition.

Note of 1 outworker was received from another Local Authority.

15 workshops were registered during the year and 4 removed from the register.

The register of workshops at the end of the year contains the following in each parish :—Barony, 2; Cadder, 57; Rutherglen, 10; Carmunnock, 8, classified as follows :—

Dressmakers and Tailors,	2
Boot and Shoe Repairers,	16
Blacksmiths,	4
Joiners,	10
Painters,	4
Plumbers,	11
Slaters,	4
Builders,	4
Bakehouses,	2
Garages,	12
Concrete Block Manufacturers,	1
Paint and Varnish Manufacturers,	1
Laundry,	1
Miscellaneous,	5
	77

DAIRIES AND COWSHEDS.

The number of cowkeepers and dairymen on the register at 1st January, 1929, was 140, and on register at 31st December, 1929, 142. The total comprises the following :—Producers, 66; producers and retailers, 24; retailers, 52.

The average number of cows in milk during the year was 2,000.

159 inspections were made of dairy premises during the year in connection with repairs and general cleanliness of premises, which, with a few exceptions, are kept in good order.

A considerable number of farms have been reconstructed and repaired during the year to conform to the By-laws, thus entailing extra work to the department.

On one estate, where there are 14 farms which required to be repaired and reconstructed, owing to the expense involved the Committee agreed to spread the work over a period of three years, the premises most in need of repair to be taken first. The work on several of the farms has already been completed and at others is proceeding.

In two instances considerable difficulty has been experienced in having the necessary work carried out, and it was not until the matter was reported to the Committee and action taken in respect of refusal of registration that the tenant farmers and owners began to take up the matter in earnest. It is expected that the work will be carried out in these two instances within the next few months.

Some difficulty is met with by the dairy farmers, in a number of instances, keeping their milk cooler in the milk scullery. Warnings have had to be given to several dairy farmers.

TABLE OF PREMISES REGISTERED AND PROVISIONALLY REGISTERED AT THE END OF THE YEAR.

(1) Number of cowkeepers and dairymen within the district,	142
(2) Number granted registration,	118
(3) Number provisionally registered,	24
(4) Number of byre premises,	90
(5) Number registered.	66
(6) Number provisionally registered,	24
(7) Number not in need of repair and registered,	14
(8) Number of premises where repairs were carried out and premises registered,	52
(9) Number of premises where necessary repairs have been arranged,	20
(10) Number of premises where proceedings are pending for additional requirements to be carried out, failing which registration will not be granted,	4

Premises where repairs have been carried out with notes of work done during this year :—

Parklea Farm, Carmunnock—

10 additional 6-inch by 9-inch inlets in external wall. Existing inlet ventilation improved.

Croftfoot Farm, Carmunnock—

10 9½-inch by 5½-inch inlets provided. Findlay ridge ventilator repaired.

Spittal Farm, Carmunnock—

4 14-inch by 4-inch inlets provided, 3 additional windows, and Findlay ridge outlet ventilator, with 20 sq. ft. of glass.

Gallowhill Farm, Carmunnock—

6 9-inch by 6-inch additional inlets in external wall.

East Castleton Farm, Carmunnock—

9 10-inch by 6-inch additional inlets in external wall.

High Netherton Farm, Carmunnock—

Findlay ridge outlet ventilator, with 60 sq. ft. of glass. Milk scullery separated from domestic scullery. New wash-house built.

West Castleton Farm, Carmunnock—

New Findlay ridge outlet ventilator, with 52 sq. ft. of glass. Old ridge ventilator dismantled.

Easthills Farm, Carmunnock—

2 outlet ridge ventilators, with 62 sq. ft. additional light.

Waterside Farm, Carmunnock—

3 additional roof-lights supplying 27 sq. ft. light, and 3 outlet ventilators.

Cathkin Mill Farm, Carmunnock—

2 additional outlet louvres and 2 additional roof-lights, giving 12 sq. ft. of light. Floor re-cemented.

Bowhouse Farm, Carmunnock—

11 4-inch inlet openings enlarged to 9 inches by 6 inches.

Eastfield Farm, Rutherglen—

New byre erected according to requirements of Dairy By-laws.

Hayhill Farm, Glenboig—

5 additional 9-inch by 6-inch wall inlets and ridge outlet, with 76 sq. ft. light supplied. Additional window in milk-house and ceiling re-lined. Milk scullery separated from domestic scullery.

Garnqueen Farm, Glenboig—

Outlet ventilator, with 30 sq. ft. light supplied.

Greenhill Farm, Gartcosh—

2 outlet ventilators and 2 additional roof-lights supplied. Floor repaired.

Burnbrae Farm, Chryston—

5 7-inch by 8-inch inlets provided and 4 additional roof-lights supplying 36 sq. ft. light.

Auchingeich Farm, Chryston—

Wall of byre built up. 8 additional roof-lights supplied, giving 36 sq. ft additional light.

Blacklands Farm, Chryston—

No. 1 byre—6 additional 6-inch inlet ventilators (nasal). Additional ridge outlet ventilation and 27 sq. ft. additional glass.

No. 2 byre—3 additional 6-inch inlet ventilators and 9 sq. ft. additional light.

Hornshill Farm, Stepps—

5 8-inch by 7-inch air inlets on wall and Findlay ridge ventilator, 9 feet by 2 feet 6 inches.

Whitehill Farm, Stepps—

16 8-inch by 7-inch air inlets on wall. Findlay ridge ventilator, 18 feet by 2 feet 6 inches. Gable re-built and walls beam filled. New milk-house built and old milk-house reconstructed for milk scullery.

Cardyke Farm, Lenzie—

Additional light fixed at ridge, 40 feet by 2 feet 6 inches, with 2-inch permanent opening. 11 8-inch by 7-inch air inlets on wall. Wallhead beam filled. New sink in scullery.

Gadloch Farm, Lenzie—

10 8-inch by 7-inch air inlets on wall. Additional light fixed at ridge, 38 feet by 2 feet 6 inches, with 2-inch permanent opening. New milk scullery. Milk-house repaired and position of door altered. Wall of dungstead rebuilt.

Longmuirhead Farm, Lenzie—

15 8-inch by 7-inch air inlets on wall. Fixed light at ridge, 53 feet by 2 feet 6 inches, with 2-inch permanent opening.

Auchinairn Farm, Bishopbriggs—

12 8-inch by 7-inch air inlets on wall. 16-feet Findlay ventilator on roof.

Wester Lumloch Farm, Bishopbriggs—

9 8-inch by 7-inch air inlets on wall. Open ridge ventilator in addition to existing louvres. 2 additional roof-lights, 2 feet 3 inches by 1 foot 6 inches.

Myriemailing Farm, Bishopbriggs—

Findlay ridge ventilator, 10 feet by 2 feet 6 inches.

Drumbottie Farm, Bishopbriggs—

6 8-inch by 7-inch air inlets on wall. 4 4-feet 6-inch by 1-foot 6-inch Turner ridge roof-lights.

East Springfield Farm, Bishopbriggs—

18 8-inch by 7-inch air inlets on wall. 7 additional roof-lights, 3 feet by 1 foot 6 inches. Communicating door between milk-house and dwelling-house built up. Erections against byre wall removed.

Garthamlock Farm, Shettleston—

No. 1 byre—Walls of byre pointed with cement. Grip repaired. Position of dungstead altered. New milk scullery. Milk-house floor cemented.

No. 2 byre—Reconstructed in accordance with new By-laws.

Springboig Farm, Shettleston—

6 8-inch by 7-inch air inlets on wall. Findlay ridge ventilator, 12 feet 6 inches. Walls beam filled.

SEASONAL WORKERS.

2 applications were received from farmers and employers to house male and female workers at two farms, but only at one of the farms were the workers housed. In the other instance local workers were eventually employed, thus doing away with the housing difficulty.

PIGGERIES.

The number of piggeries on the register at 31st December, 1929, was 31, and the approximate number of pigs in the district, including those at farm steadings and public institutions, 3,389.

137 inspections were made to premises during the year.

The premises have been generally kept clean and in a good state of repair.

The following plans were submitted and approved by the Committee:—Extension of piggery at Easter Cadder Farm, Bishopbriggs; erection of new piggery for Messrs. Peter & Francis Orr at Auchinairn House, Auchinairn, Bishopbriggs. These were completed at the end of the year.

A complaint regarding smell from a piggery at Mossvale, Chryston, was received during the year. The piggery complained of was recently constructed on the best lines, and plans were passed in accordance with the By-laws. However, as the owner utilises the surrounding ground as a runway, and as this ground immediately adjoins a lane at the rear of a row of semi-detached villas, this gave reason for complaint from one of the occupiers. A slight piggery smell was certainly detected on more than one occasion but nothing which we considered action could be taken against. This was concurred in by the Assistant Medical Officer of Health. The owner improved the drainage of his ground to prevent overflow, and the complainant's drains were smoke-tested and slight defects remedied. No further complaints have been received.

BURIAL GROUNDS.

1 inspection was made of a burial ground in the district, which was found in order.

5 burials were carried out in terms of Section 69 of the Public Health (Scotland) Act, 1897.

TENTS AND VANS.

12 inspections were made of tents and vans during the year.

Complaint was received towards the latter part of the year regarding tinkers who had taken up their residence in the wood known as the Wilderness, near Mavis Valley, Bishopbriggs.

On visiting it was found there were 10 tents or shacks, housing together a population of 51. The majority were of the tinker class, who stated they were putting in the winter there and that their children were at school and had to get sufficient attendance before they took to the road again. There were two tents occupied by unemployed families who had neither work nor home. On the instructions of the Estate Factor the police took the matter up and all have now removed, with the exception of one family.

During their residence a child was born and died, and was buried at the expense of the Local Authority; also one member of another family was removed to hospital suffering from pneumonia.

STATEMENT BY THE SANITARY INSPECTOR OF PROCEEDINGS UNDER THE PUBLIC HEALTH ACTS, 1897, HOUSING &c., (SCOTLAND) ACTS, 1909 TO 1928, AND OTHER ACTS, DURING THE YEAR 1929.

Nuisances.

Complaints received (verbal and written), ...	106
Visits of inquiry and inspection, ...	9,018
Intimations served in terms of Section 19 of Public Health Act,	136
Notices served in terms of Section 20 of Public Health Act, ...	3
Notice served in terms of Section 40 of Public Health Act, ...	1
Insanitary conditions dealt with by letter (letters issued), ...	342
Number of recurring nuisances dealt with by intimation, ...	117
Number of structural nuisances dealt with by intimation, ...	19
Nuisances abated, ...	136

Infectious Disease.

Visits of inquiry, &c.....	548
Apartments disinfected by Sanitary Inspectors and Health Visitors,	203
Bedding and articles of clothing disinfected by Sanitary Inspectors and Health Visitors, ...	196
Bed and bedding removed for disinfection, ...	7
Intimations to parents and school teachers, ...	651
Throat and Nose Swabs taken, ...	38

Factories and Workshops.

Factory inspections,	122
Workshop inspections,	20
Workshops registered during the year,	15
Removed from register,	4

Cowsheds and Dairies.

Number on Register at 1st January, 1929,	140
Registered during the year,	14
Removed from Register,	12
On Register at 31st December, 1929,	142
Inspections of dairy premises,	159
Letters to registered occupiers and owners,	54

Offensive Trades.

On Register at 1st January, 1929,	5
Applications for sanction to establish,	—
On register at 31st December, 1929,	5
Inspections,	106
Contraventions dealt with,	11
Letters to owners,	12

Drainage.

Visits *re* condition of house drains,	317
Drain inspections,	125
Defective drains disclosed,	7
Defects remedied,	7
Defective Drainage systems remedied or reconstructed,	24
Applications of smoke-test,	18
Number of properties tested,	15
Visits *re* provision of water-closets,	20
New water-closets provided,	33
Connections to public sewers,	23
Inspections of connections,	23
Connections to private sewers,	28
Inspections of connections,	20
Inspections of Sewage Purification Works,	180
Inspections *re* old culvert at Farme Housing Site,	2
Visits *re* ditch cleaning,	2
Sewer cleansing inspections,	6
Sewer inspections *re* defects or chokages, &c.,	21

Building By-Laws.

New Buildings, Alterations, Additions, &c.

Number of plans lodged,	59
Number of plans approved,	59
Inspections of new buildings, alterations, additions, &c., by Building Inspector,	3,270
Applications of smoke test to drains and plumber work,	458
Number of properties tested,	917
Houses passed for occupancy,	979
Welfare Institute passed for occupancy,	1
Shops passed for occupancy,	2
Garage passed for occupancy,	2
Sport Pavilion passed for occupancy,	1
Addition passed for occupancy,	1

District Committee's Housing Schemes.

Visits by Building Inspector *re* progress of works, formation of roads, construction of sewers, &c.,	390

Housing, &c. (Scotland) Acts, 1909 to 1928.

Number of dwelling houses inspected (includes 15 secondary inspections),	114
Houses considered unfit for human habitation,	34
Notices served under section 3 of 1925 Act,	47
Representations made to Local Authority,	10
Houses for which Closing Orders were made,	4
Houses closed (voluntarily),	10
Houses in which defects were remedied by owners,	26
Demolition Orders made,	8
Houses demolished,	3
Visits *re* demolition of houses,	14
Notices served,	47

Housing (Rural Workers) Act, 1926.

Number of dwelling houses inspected,	53
Representations made to Local Authority for Closing Orders,	7
Closing Orders issued,	3
Notices served *re* necessary repairs required,	54

Miscellaneous.

Cemeteries—Inspection of burial ground,	1
Visits *re* applications for burial,	3
Burials in terms of Section 69 of Public Health Act,	5
Pig-styes:—	
Number on Register at 31st December, 1929,	31
Inspections,	137
Approximate number of pigs in district at 31st December, 1929,	3,389
Tents and Vans—Inspections,	12
Ice Cream Shops—Inspections,	5
Unsound Food—	
Inspections of premises,	4
Inspections of food,	2
Visits to premises alleged to be infested with rats,	30
Rat poison supplied,	6
House-to-house visits for the detection of dirty or overcrowded houses,	301
Visits *re* verminous houses,	31
Visits *re* infestation of Steel Houses with insects,	4
Houses sprayed with "Insecticide,"	7
Warning letters sent *re* verminous houses,	29
Refuse Coups—Inspection,	59
Visits *re* water supplies,	5
Sample of water taken for analysis,	1
Visit *re* housing of seasonal workers,	1
Common closes, stairs, and water closets—Inspections,	310
Date Cards issued,	39
Notices to owners in terms of Section 117 of Burgh Police Act,	60
Closes and stair walls whitewashed,	72
Notice and letter warnings *re* improperly fouling water closets, and back areas,	16
Private streets and lanes—Inspections,	11
Letter warnings *re* unsatisfactory condition of private lane,	42
Coal Mines Act, 1911—Inspections *re* protection of old pit shaft,	3
Shafts filled in,	3
Stable—Inspection,	1
Scavenging—	
Inspections in Special Districts,	6,653
Privies demolished,	4
Privy middens demolished,	2
Ashpits demolished,	3
Notices served under Section 23 of Burgh Police Act,	3
Dustbins provided and renewed,	306
Notices posted and letter warnings *re* improperly fouling ashbins,	16
Visits *re* asphalting back-courts,	6

Lightburn Joint-Hospital.

Annual Report.

Resident Physician—H. Muir Davie, M.B., Ch.B.

Matron—Miss Townsend, R.R.C.

The admissions and discharges during the year, classified according to the disease notified, and to constituent authority, are shown in Table A and Table B respectively.

Table A.

Disease.	In Hospital Jan. 1st, 1929.	Admitted.	Discharged. Recovered.	Discharged. Died.	In Hospital. Dec. 31st, 1929.
Scarlatina, ...	30	258	258	—	30
Diphtheria, ...	19	125	117	5	22
Pneumonia, ...	19	160	134	22	23
Erysipelas, ...	3	12	12	2	1
Tuberculosis, ...	17	35	34	7	11
Puerperal Sepsis, ...	1	9	8	1	1
Cerebro-spinal Meningitis, ...	—	6	4	2	—
Ophthalmia Neonatorum, ...	—	2	2	—	—
Whooping Cough, ...	—	3	3	—	—
Measles, ...	—	1	1	—	—
Continued Fever, ...	1	1	1	1	—
Other Diseases,* ...	4	6	7	1	2
	94	618	581	41	90

*Scabies, 2; Syphilis, 1; Tetanus, 1; Chickenpox, 1; Encephalitis Lethargica, 1.

Table B.

Cases Classified according to constituent authority.

Disease.	Lower Ward, Lanark.	Middle Ward, Lanark.	City of Glasgow.	Rutherglen Burgh.
Scarlatina, ...	86	89	82	1
Diphtheria, ...	60	22	43	—
Pneumonia, ...	51	44	65	—
Erysipelas, ...	2	5	5	-
Tuberculosis, ...	35	—	—	—
Puerperal Sepsis, ...	8	—	1	—
Cerebro-spinal Meningitis, ...	3	2	1	—
Ophthalmia Neonatorum, ...	2	—	—	—
Whooping Cough, ...	3	—	—	—
Measles, ...	1	—	—	—
Continued Fever, ...	1	—	—	—
Other Diseases, ...	6	—	—	—
	258	162	197	1

Compared with last year's returns there was an increase in the total number of admissions, due mainly to an increase in the number of pneumonia cases, the figures for other diseases remaining fairly constant.

At the beginning of the year there were 94 cases in residence. The number of admissions was 618, making a total of 712. Of these, 581 were discharged well, 41 died, leaving 90 cases in hospital at the end of the year.

Of the 41 deaths, 7 died within twenty-four hours of admission, and have been excluded in calculating the fatality rate. The figures, thus corrected, give a fatality rate of 5·5 per cent., as compared with 8 per cent. for the previous year.

The average monthly rate of admission was 51·5, the lowest number of admissions occurring in July and the highest number in January, the figures being 25 and 88 respectively.

The average daily number of patients resident was 82, the highest number in residence being 117 on 29th January, and the lowest number 52 on 31st July.

Scarlet Fever.

30 cases were in hospital at the beginning of the year. The number of cases admitted was 258, of which 258 were discharged well, leaving 30 cases in residence at the end of the year. There were no fatal cases throughout the year.

The average duration of residence was, in mild cases, 38 days; in severe cases, 65 days.

Revised Diagnosis.—The diagnosis was revised in 10 cases, as follows:—Bronchitis, 1; enteritis, 1; influenza, 3; negative, 3; otitis media, 1; pneumonia, 1.

Type of Disease.—The disease proved generally to be of a mild type. Of the 248 true cases discharged, 218 were classified as mild, 21 as moderately severe, and 9 as very severe. Of the last group, 2 cases were of the septic type.

Complications.—33·3 per cent. of the cases discharged had one or more complications, as follows:—

Glands.—42 cases, or 17 per cent., had glandular enlargement. In 8 cases suppuration resulted.

Ear.—26 cases, or 10 per cent., developed otitis media. 2 cases were discharged with the ear still moist.

Nose.—29 cases, or 11·7 per cent., developed rhinitis.

Joints.—4 cases, or 1·6 per cent., developed arthritis.

Kidneys. — 2 cases, or ·8 per cent., had true nephritis. There were 5 cases of mild albuminuria.

Heart. — 3 cases had functional heart murmurs and 3 cases arrhythmia. No organic lesions were detected.

Other Conditions Present.—Erythema nodosum, 1; paronychia, 2; quinsy, 1.

Mixed Infections. — Chickenpox, 3; diphtheria, 2; whooping-cough, 1.

Diphtheria.

19 cases were in hospital at the beginning of the year. 125 cases were admitted, 117 discharged, and 5 died, leaving 22 cases in residence at the end of the year.

The average duration of residence of recovered cases was 52 days, and of fatal cases 5 days.

Type of Disease—

Bacteriological. — 8 cases in which the organism had been recovered from the throat presented no symptoms.

Faucial—

Mild.—37 cases were of a mild type. The average amount of antitoxin given was 8,000 units.

Complications.—Adenitis, 1; arrhythmia, 4; serum urticaria, 1; tonsillitis, 1.

Moderate.—42 cases were of a moderately severe type. The average amount of antitoxin given was 18,000 units.

Complications.—Adenitis, 2; arrhythmia, 5; albuminuria, 1; otitis media, 3; serum rashes, 3; tonsillitis, 1.

Severe.—15 cases, including 4 fatal cases, were of a severe type. The average amount of antitoxin given was 40,000 units.

Complications.—Arrhythmia, 3; nephritis, 1; palatal paresis, 1; serum rash, 1; tonsillitis, 1.

Laryngeal.—In 8 cases the larynx alone was involved, while in 5 cases the fauces were also affected. 1 of these died. The average amount of antitoxin given was 25,000 units.

Complications.—Adenitis, 1; serum rash, 1.

Tracheotomy. — In 2 cases the stenosis was so severe as to require tracheotomy; both recovered.

Faucial and Nasal.—In 4 cases the fauces and nose were involved. These cases received an average of 24,000 units antitoxin.

Altered Diagnosis.—Abscess of cheek, 1; ulcerative stomatitis, 1; whooping-cough and laryngitis, 1.

Fatal Cases.—Of the fatal cases, 4 were faucial and 1 laryngeal. The average period of residence was 5 days. 2 of these cases were admitted moribund. The average amount of antitoxin administered was 40,000 units.

Antitoxin.—4 cases, or 3·3 per cent. of discharges, had antitoxin before admission to hospital.

Mixed Infections.—Scarlet fever, 3.

Pneumonia.

19 cases were in hospital at the beginning of the year. 160 cases were admitted, of which 17 were wrongly diagnosed. 134 were discharged well and 22 died, leaving 23 cases in residence at the close of the year.

Classification.—Lobar, 79; lobular, 49; influenzal, 11.

The Fatality Rate calculated on discharges was 15·7 per cent.

Complications. — Empyema, 4; meningism, 1; pleurisy, with effusion, 2; residual abscess, 1.

Other Conditions Present. — After measles, 2; after whooping-cough, 1; diphtheria, 1.

Corrected Diagnosis. — Bronchitis, 1; bronchial catarrh, 1; influenza, 7; malnutrition, 1; pleurisy, with effusion, 1; pulmonary tuberculosis, 4; scarlet fever, 1; senility, 1.

Erysipelas.

3 cases were in residence at the beginning of the year. 12 cases were admitted, 12 were discharged well, and 2 died, leaving 1 case in hospital at the end of the year.

Situation of Disease.—Face, 6; leg, 4; face and scalp, 2; scalp, 1.

The average age was 38 years, and the average duration of residence, 25 days.

Complications.—Cellulitis, 2; eczema, 1.

Fatal Cases.—These were both young men, who had the wandering type of disease. Both developed diffused cellulitis.

Corrected Diagnosis.—Impetigo, 1.

Tuberculosis.

17 cases were in residence at the commencement of the year, 35 cases were admitted, 34 discharged, and 7 died, leaving 11 cases in hospital at the end of the year.

Fatal Cases. — 5 of these were pulmonary. The average age was 32 years. 3 of these were of the acute and 2 of the chronic type. Of the other 2 fatal cases, 1 was meningeal and the other abdominal, both being boys of eight years.

Discharges.—34 cases were discharged, classified as follows:—

Pulmonary—18 cases improved.

Glandular—3 cases cured.

6 cases improved.

Bones and Joints—2 cases cured.

2 cases improved.

Altered diagnosis—3 cases with no evidence of tubercle.

Altered Diagnosis. — Chronic bronchitis, 1; malnutrition, 1; anterior poliomyelitis, 1.

X-Ray. — 10 cases were sent to Motherwell County Hospital for X-ray examination. 8 were positive.

The average stay in hospital was over 3 months in most cases.

The mercury vapour lamp was used throughout the year as an adjuvant to other treatment, and proved of benefit in the non-pulmonary cases.

The social side of the treatment was again a feature, and several enjoyable entertainments were sustained during the winter months.

Puerperal Sepsis.

1 case was in hospital at the beginning of the year. 9 cases were admitted; 8 discharged, of whom 3 were wrongly diagnosed; and 1 case remained in residence at the close of the year.

Fatal Case.—The fatal case was of the septicæmic type, and died within 48 hours of admission.

Treatment still consists mainly in douching and nursing in the semi-recumbent position. The different brands of serum recommended were also tried, but the results were not uniformly striking.

Complications.—Aphasia, 1; arthritis, 1.

Altered Diagnosis.—Constipation, 2; scarlet fever, 1.

Cerebro-Spinal Meningitis.

No cases were in hospital at the beginning of the year. 6 cases were admitted, of which only 1 was confirmed. This case died. Of the other 5 cases in which the diagnosis was revised, 1 was fatal.

Fatal Cases. — The true case of cerebro-spinal meningitis was proved bacteriologically. The patient, a female of 3 years, improved rapidly with treatment, but lapsed into a chronic state, and died after 61 days' residence. The other fatal case was admitted moribund, and died in a few hours. *Post-mortem* examination revealed generalised peritonitis.

Altered Diagnosis.—Enteritis, 1; influenza, 1; peritonitis, 1; pneumonia, 2.

Ophthalmia Neonatorum.

No cases were in hospital at the start of the year. 2 cases were admitted and made good recoveries. One of these was admitted on the ninth day of disease with a large corneal ulcer in one eye. On discharge, a moderately large opacity remained, but the prospects for vision were very good.

Continued Fever.

2 cases of continued fever were admitted during the year. 1 of these, a boy of 14, proved to be enteric fever, and ran an uneventful course to recovery. The other case proved to be malignant endocarditis, and died after 14 days' residence.

Whooping-Cough.

3 cases of whooping-cough were admitted during the year. They were all of a mild type, and made good recoveries. They were all complicated by rubella.

Tetanus.

A boy of 14 years was admitted, with a history of having injured his hand on a barbed-wire fence, this being followed a few days later by trismus and painful generalised muscular spasm.

On admission to hospital it was found that he had a small inflamed wound on the dorsum of the left hand. His jaws were tightly locked, and he showed the typical risus sardonicus. The muscles of his neck, back, and abdomen were also in tonic contraction, and the patient showed a marked aversion to noises and bright lights.

Anti-tetanus serum was administered intrathecally and intramuscularly in large doses, and the patient made an uncomplicated recovery.

Clinically the case was typical, although not of a fulminating type.

Other Diseases.

The remaining cases discharged were as follows:—Chickenpox, 2; congenital syphilis, 1; measles, 1; tinea tonsurans, 2.

Ambulance Work.

	Miles.
Admissions, ...	3,688
Dismissals, ...	1,896
Other runs, ...	1,352
Total Mileage, ...	6,936

Grounds and Buildings.

Pavilion VI was redecorated during the summer. Central heating, which was previously confined to the top flat of the administrative block, was extended to the second flat, and now includes all the nurses' bedrooms.

Staff.

The staff at the end of the year comprised 1 resident physician, 1 matron, 5 sisters, 2 staff nurses, and 20 probationer nurses. In addition, there were 14 maids and 1 cook.

The outdoor staff comprised 1 staff foreman, 2 mechanics, 1 chauffeur, and 1 gardener.

The health of the staff throughout the year was satisfactory.

COUNTY OF LANARK

MILK AND DAIRIES (SCOTLAND) ACT, 1914

County Veterinary Inspector's Report

FOR THE

UPPER, MIDDLE, AND LOWER WARD DISTRICTS

OF THE

COUNTY OF LANARK

AND

THE BURGHS OF BIGGAR AND LANARK

FOR THE YEAR 1929.

To—

THE DEPARTMENT OF HEALTH FOR SCOTLAND.
THE COUNTY COUNCIL OF THE COUNTY OF LANARK.
THE DISTRICT COMMITTEE OF THE UPPER WARD.
THE DISTRICT COMMITTEE OF THE MIDDLE WARD.
THE DISTRICT COMMITTEE OF THE LOWER WARD.
THE TOWN COUNCIL OF THE BURGH OF BIGGAR.
THE TOWN COUNCIL OF THE BURGH OF LANARK.

MY LORDS AND GENTLEMEN,

I have the honour to submit the Fourth Annual Report of the work done by the Veterinary Department of the County of Lanark, under the Milk and Dairies (Scotland) Act, 1914, for the year 1929.

This report has been compiled in accordance with the instructions set out on pages 5 and 6 of Circular No. 11, 1929, issued by the Department of Health for Scotland, of date 27th December, 1929.

(a) Review of the Year's Work.

1. ANY MATTERS OF OUTSTANDING GENERAL INTEREST.

Foot-and-Mouth Disease.

Although it is true that certain areas of the northern section of the County were for short periods under restriction through outbreaks of Foot-and-Mouth Disease, *i.e.*, (*a*) in Cadder Parish; (*b*) in Glasgow Abattoir; and (*c*) in the South of Stirlingshire, our work under the Milk and Dairies (Scotland) Act, 1914, was not prejudiced thereby to any appreciable extent, as the outbreaks occurred during the grazing season when little inspection of herds is possible.

Anthrax.

In a few cases of Anthrax involving a dairy cow found dead in the morning, the last milk drawn from the animal before she was known to be ill had been sent away without any known untoward result, but this is in accordance with recognised experience that the milk of a

cow, which dies of Anthrax, does not contain the infection of Anthrax while she is apparently well and yielding milk in normal quantity or indeed until a very short time before death when the disease has become systemic and practically no milk is procurable.

In *two* cases the last milk obtained from the cow that died was still on the farm at the time of our visit, and the contents of the churn containing it were destroyed.

2. Any Particular Questions of Interest or Importance.

See other sections.

3. Any Administrative Difficulties which the Inspector has encountered.

We have met with no administrative difficulty during the year, except perhaps in the case of one milk producer (convicted of an offence under the Tuberculosis Order), who now habitually reports trivial cases by telephone, and refuses sometimes to state the nature of the case or the particular Order under which it is notified.

When we visit his place, although usually accompanied by a Police Officer, he treats us obnoxiously by word and action. This has resulted in a letter of warning having been sent to him by the County Clerk at the instance of the Executive Committee.

(b) A Statement of the Extent to which the Veterinary Inspector has been able to overtake—

1. The Statutory Inspections of Cattle on Registered Dairies at the Intervals Prescribed in the Regulations Governing his Duties.

The routine veterinary inspection of all registered dairy herds within the County, and in the Burghs of Lanark and Biggar, was duly carried out during 1929.

The work is still limited to a single visit per annum, although, as is customary, we inspect again and yet again any herd that is available when we are called to the premises on work under the Diseases of Animals Acts.

As heretofore, the work done was carried out by my Assistant and myself, with a little temporary help from private practitioners.

In my last Annual Report, I put forward some reasons, which need not be repeated, why the important work of the veterinary inspection of dairy herds should be increased if milk consumers are to get that degree of protection against bovine tuberculosis, which they have a right to expect. Unreported cases of well-developed tuberculosis of the udder are not uncommonly detected by us, and many of them would be caught at an earlier stage if inspections were made more frequently. If we were instructed to inspect all herds, even twice yearly, it would necessitate the appointment of a temporary whole-time Assistant for at least 6 or 7 months in the year, when the cows are housed, as the work is in great measure impracticable in the Summer and Autumn.

Some Counties already carry out two annual inspections, and the suggestion has been made that all herds in County areas should be inspected three times a year.

2. The Inspection of Cattle in Premises which are not Registered Dairies, but from which Milk is Sold in Small Quantities, &c.

So far as they were known to us, we inspected all such cattle, and in most instances we examined also the single cow of shepherds and others who sell no milk at all. This is amply justified by the occasional finding of a single cow (the only source of milk supply to a family) amenable to the Tuberculosis Order, and which should have been reported.

(c) Observations on—

1. The General Conditions and Cleanliness of Cattle in the District.

There is considerable evidence that the methods and equipment of milk producers in the County are gradually attaining a higher standard of efficiency, although under a single yearly inspection it is hardly possible to supervise and reform the careless individual. This type of dairyman makes no continued effort to keep his cows clean or his premises in order, and usually has a ready excuse on the day of our visit. He also fails to report cases coming within the scope of the Tuberculosis Order, and often keeps out of the way when we visit his place.

It is understood that in order to secure improvement in such cases as we report on adversely, the Medical Officer of Health is causing special visits to be made by Sanitary Inspectors, who also take samples of milk for laboratory estimation of their bacterial content, &c.

Stock-owners, in gradually increasing number, are clipping the udders, tails, and hind parts of all their cows-in-milk, because they recognise more and more that when the hair is kept short on the parts liable to pollution the animals are more easily kept clean, and clean milk production is better assured. Our general instruction is that *constant clipping is essential*, especially in cowsheds where the cows are ill-suited in their stalls and where the capacity of the dung channel is inadequate, or its lay-out defective. It is almost impossible, even with the best intentions, to keep cows clean where these defects are present, and nothing but effective washing can properly prepare soiled cows for milking.

We instruct owners that *the suitability of a stall for its occupant is fundamental* for the saving of labour in clean milk production, but although the majority of our herds contains animals that vary greatly in size, we rarely find that any variety in the length or width of the stalls has been provided.

The physical or bodily condition of our dairy cows is very good—in many cases excellent—and this is one of the natural results of the adoption of systems of rationing that yield good returns in milk production.

2. The Nature of the Fodder and Diet as Affecting the Quality of the Milk.

We have not come across any outstanding case in which the quality of the milk was adversely influenced by the diet, although on occasion we have heard of milk being turnip-tasted in the months of October and November when too many shaws (tops) of green turnips had been given, or when the roots themselves were fed to the cows before instead of after milking.

Occasionally we have encountered cases of under-feeding of dairy cattle, and this has been reflected mainly in the bodily condition of the cows and the quantity of milk secreted. The quality of the milk in respect of its fat content has not, however, suffered—rather the reverse. Such cases, which are fortunately few in number, are dealt with on their merits.

Waterbowls in Cowsheds.

As indicated in my report for the year 1928, we took a census during 1929 of the cowsheds that were equipped with waterbowls, the result being as follows, viz. :—

Upper Ward District, ...	81	
Middle Ward District, ...	167	281
Lower Ward District, ...	33	

Of this total of 281, the valve type of waterbowl was installed in 193 cowsheds, and the gravitation type in 86 cowsheds, while both types were present in 2 cowsheds.

Without exception, owners are convinced of the advantage of having waterbowls, and in almost every instance of byre construction or reconstruction, waterbowls have been provided. They are a great boon to the cows and to all concerned, and as a result of their use the expensive and needless cooking of food for dairy cows is gradually decreasing.

As many of the most progressive milk producers have already installed waterbowls, the speed of the movement towards increased installation is now likely to slacken down in the County if it has not already done so.

3. The Number of Diseased Cows Found (Specifying the Diseases—Excluding Tuberculosis).

(For a tabulated statement of abnormal conditions of the udder encountered see Table II.)

We have made no attempt in the past to assess the number of cows in dairy herds that we find to be suffering from such diseases as Contagious Abortion, Septic Metritis, Retention of the Fœtal Membranes, Johne's Disease, Dysentery, Transient Diarrhœa, Ringworm, Redwater, Acetonæmia, suppurative conditions of the limbs or feet, &c.

The production of such data would entail considerable additional labour in diagnosis and in clerical work. Meantime, we give such advice and instruction as to the isolation of affected animals and the suppression of their produce as the case merits, but our experience is that milk producers do not readily send the produce of a sick cow to the market. On most farms there is an entire absence of suitable isolation premises, and very often it is difficult to secure the removal

of an evil-smelling cow that has retained her fœtal membranes, although the atmosphere in the cowshed is rendered noisome by her presence. The retention of such cases in a dairy byre is very objectionable. Many owners habitually isolate them or do so at once when requested, but it is feared that others meet our requests with a passive resistance.

The Public Health aspect of Contagious Abortion in cattle—a scourge of our herds that is second only to Tuberculosis in this County—has now acquired a very definite importance that cannot be shirked if the interdependence of Malta or Undulant Fever in man and Abortion Disease of milch cows is likely to find general acceptance in this country.

In some past years we have taken statistics regarding the prevalence of Contagious Abortion in Lanarkshire, and we invariably found that from 3 to 5 per cent. of our herds were experiencing cases of the disease. We have taken no statistics since 1920. Cattle suffering from the disease excrete the *bacillus abortus* in their milk, and continue to do so for a time after they have ceased to abort. Up till now we have not taken any milk samples for the specific detection of the *bacillus abortus*. The consumption of milk containing the organism has never been known to cause abortion in the pregnant woman, but many authors have reported cases of Undulant Fever in man due to the use of milk so infected, and assert that cases of Undulant Fever are found in direct proportion to the effort spent in looking for the disease.

The emphasising of this danger is of comparatively recent date, but because Undulant Fever may readily be mistaken for other equally serious conditions, considerable investigation of the problem in this country seems called for.

We have met with no case of Cowpox in the past few years, and during 1929 we encountered a smaller than usual number of cases of udder and teat eruptions. Outbreaks of infectious teat eruptions seem to decline with improvement in dairy methods in the cowshed.

4. The Manner in which Milk from Diseased Cows is Disposed of.

In this connection, we can only accept the assurance of the milk producer that he has been giving it to calves, pigs, or hens, in its raw state, or after scalding or boiling, and we are equally dependent

on his honour when it has been necessary to ban the milk of a cow that until our visit he had been sending to market.

In some cases of marked tuberculous induration of the udder, it has been perhaps reluctantly admitted that the milk was sent to market because unfortunately it appeared normal, as is usual with the product of a tuberculous quarter in the early stages of the lesion. In other cases, we are told it has been fed to calves or pigs, and there could be no more effective way than this of ensuring the propagation of tuberculosis in bovines and pigs.

(d) Observations in regard to—

1. Tuberculosis Among Dairy Cows in the District.

Reference to Table IV will show to what extent we are weeding out cases of tuberculosis amenable to the Tuberculosis Order.

If the veterinary inspection of dairy herds were done even twice yearly, progress in the eradication of the disease would be more marked.

Although it is true that the Tuberculosis Order, with its present powers, was never intended as a measure for the eradication of tuberculosis in bovines, it can be claimed that every time we eliminate from a herd a dangerous tuberculous animal we actually score in that direction.

In this County the Veterinary Department has nothing to do with and is never officially consulted in matters of meat inspection. We visit the abattoirs regularly to make *post mortem* examination of all animals slaughtered under the Tuberculosis Order, and when there cannot help seeing tuberculous carcases of cows that have been slaughtered outwith the Tuberculosis Order—animals that have very obviously been amenable to the Order, and which, in many cases, have come from herds within the County. It is evident that herein lies a signal opportunity for making a greater onslaught on bovine tuberculosis. The power lies within the control of the Local Authority, and we respectfully suggest that outstanding cases that are known to have come from the County area should be reported to us by the Public Health Department to be dealt with on their merits, and so enable us to visit and make an immediate inspection of the herd in any cowshed that has provided a dangerously infective case of tuberculosis and see that adequate disinfection is carried out.

2. The Number of Cows Found Tuberculous on Clinical Examination of Herds.

See Table IV.

3. The Number of Cows Found Tuberculous After Tuberculin Test.

43 animals that were condemned under the Tuberculosis Order had been tested with tuberculin.

4. Total Number of Cows to which the Tuberculin Test was Applied under Section 22.

In no case has tuberculin been used under Section 22 of the Act. Many doubtful cases were tested with tuberculin under the equivalent powers of the Tuberculosis Order.

In one instance where at least four cows were coughing tuberculous sputum on to the wall, and were dealt with under the Tuberculosis Order despite the owner's opposition, I was apprehensive that most of the other members of the herd would be likely to indicate that they were also infected if submitted to the tuberculin test. I expressed a desire to test all the animals under Section 22, but the owner could not see his way to agree, on the plea that his cows were milking well, and that if they were tested and almost all reacted he would be in a dilemma. Compulsory power is required to deal with such a case.

5. An Account of steps taken to secure a Tubercle-Free Milk Supply.

For many years we have devoted much energy and time to impressing on owners, especially those who breed their own stock and have self-supporting herds, the great advantages that accrue from the banishment of tuberculosis from their herds.

This propaganda has been supplemented occasionally by unsigned articles published in the press and calculated to inspire in turn the stockowner and the milk consumer regarding their material interests in a tubercle-free milk supply, and this has in great measure been responsible for the number of Certified and Grade A (T.T.) herds that we have in the County.

On many occasions when a herd has reached the point of being graded for the production of certified milk to be retailed by the producer, we have assisted him by drafting suitable circulars, &c., setting out the advantages of such milk and for distribution in the district where he intended to sell his produce. In some cases the establishment of the round has not been difficult, and if the milk producer has benefited materially, who can estimate the public health value of his enterprise, especially in those cases where certified milk is sold to working class people at no more than from ½d. to 1d. per pint over the price of unbottled ordinary milk?

In other cases, the battle has been an uphill one owing to the insistent hawking of an over-abundant milk supply in many places, and in some degree to the failure of the public to realise the real food value of liquid milk of any grade.

6. A List of Dairies Holding Milk Licences in Respect of Tubercle-Free Herds.

CERTIFIED.

Owner and Premises.	Average number of Herd.	Estimated number of gallons produced per annum.
James G. Gilchrist, Auchtygemmell, Lesmahagow.	40	20,535 gallons.
Wm. Fleming, Auldton, Ashgill.	58	28.470 ,,
Harry Roscoe, Boghead, Crawford.	12	4,289 ,,
James Hodge, Brownhill, Carnwath.	33	12,045 ,,
Eben. More & Co., Dalmacoulter, Airdrie.	70	20,987 ,,
Lord Hamilton of Dalziel, Dalziel Home Farm, Motherwell.	39	26,280 ,,
Glasgow District Board of Control, Gartloch Mental Hospital, Gartcosh.	98	51,343 ,,
Middle Ward District Committee, Hairmyres, East Kilbride.	46	30,477 ,,
Lanark District Board of Control, Hartwood Home Farm, Hartwood.	84	46,172 ,,
J. & T. Blackwood, Hill of Kilncadzow, Carluke.	53	21,900 ,,
John Hamilton, Low Mains, East Kilbride.	45	19,984 ,,
Andrew Murdoch, Teaths, Lesmahagow.	47	17,337 ,,
John Russell, Walton Mansion, Dunsyre.	64	28,835 ,,
James Wilson, Westburn, Cambuslang.	22	13,870 ,,

GRADE A (T.T.)

Owner and Premises.	Average number of Herd.	Estimated number of gallons produced per annum.
John Struthers, Anston, Dunsyre.	62	25,671 ,,
Gavin Hamilton, Auldtoun, Lesmahagow.	48	22,143 ,,
Hugh C. Brown, Birkwood Mains, Lesmahagow.	40	20,805 ,,
Lindsay Steele, Blackhill, Crossford.	34	17,429 ,,
John Fairie, Blackwoodyards, Kirkmuirhill.	48	21,900 ,
Andrew Gilchrist, Brae, Strathaven.	37	14,782 ,,
Alexr. Wilson, South Carnduff, Strathaven.	37	18,007 ,,
James A. Brown, Cormiston Towers, Biggar.	58	22,812 ,,
John Cadzow, Craighead, Carluke.	46	18,067 ,,
Thos. Pate, South Draffan, Kirkmuirhill.	40	27,557 ,,
Thos. Lambie, Drumbuie, East Kilbride.	48	18,432 ,,
S. A. Ballantyne, Eastwood, Lesmahagow.	31	16,425 ,,
Walter Adamson, Harleyholm, Carmichael.	67	27,010 ,,
T. B. M'Gregor, Lesserlinn, Lanark.	54	25,732 ,,
R. & W. Wallace, Linnhead, Sandilands.	39	27,010 ,,
Thos. Scott, Netherhall, Sandilands.	33	16,790 ,,
Rt. Hon. Earl of Home, Newmains Home Farm, Douglas.	28	12,288 ,,
John Kirkwood, Scorrieholm, Lesmahagow.	40	19,710 ,,
Thos. C. Stewart, Southfield, Blackwood.	60	24,698 ,,
Mrs. Murray, Stramolloch, Chapelton.	31	16,425 ,,
John Strachan, Udstonhead, Strathaven.	58	29,930 ,,
James Barr, Whiteshaw, Carluke.	46	26,554 ,,
T. & W. Ballantyne, Woods, Auchenheath.	36	12,531 ,,

7. A Note of the Number of any other Dairies known to have Tubercle-Free Herds with the Average Number of Animals and the Estimated Number of Gallons Produced Per Annum.

We have intimate knowledge of upwards of 30 herds that are already tubercle-free or very nearly so, and if the demand for tubercle-free milk was sufficient they could be brought in in a few months to produce upwards of 1,500 gallons daily, nor would this exhaust our almost immediate resources.

The lack of expansion in the demand for high-class fresh milk in the last 2 or 3 years has greatly prejudiced the further increase in the number of graded herds.

8. A Note of any General Difficulties which are Found by Producers to Militate against the Successful Marketing of Certified and Grade A (Tuberculin Tested) Milk with any Suggestions for Meeting such Difficulties.

Over-production of all classes of milk during the past few years is the chief factor, and as our consumption of liquid milk per head of the population is much lower than it should be for reasons known and unknown, the call for intensive propaganda in favour of milk as the cheapest and best food is urgent.

A less expensive and less elaborate method of capping bottles containing graded milks would be much appreciated, especially in those cases where certified milk is taken direct to the consumer's door and sold at a fraction more than unbottled ordinary milk. In such cases the producer grudges the expensive outer capping and contrives on occasion to do without it.

(e) Notes on any Samples taken for Examination in terms of Section 21 of the Act of 1914.

No such samples were taken by us during 1929.

(f) A Statement of the Extent to which Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914, is being complied with.

In so far as these sections refer to the milk of any cow, which is suffering from tuberculosis with emaciation or from tuberculosis of

the udder, or of any cow which is giving tuberculous milk, direct reference should be made to Table IV as all such cases, being amenable to the Tuberculosis Order, are at once dealt with under that Order.

My last report dealt at some length with the procedure adopted in this County against the "weeded" cow, as being an animal suffering from a diseased condition liable to infect or contaminate the milk. There has been no change in procedure during 1929, and although 148 cows were put under restriction, only one case of a "weeded" cow was reported to us under Section 13 of the Milk and Dairies (Scotland) Act, 1914.

The sanitary inspection of Registered Dairies and exempted premises is not in the hands of the Veterinary Inspector in this County, but, acting under instructions, we still take short notes of defects in cowsheds and refrain, as instructed, so far as is humanly possible, from discussing them with owners. In extraordinary cases, a special report, in addition to the ordinary dairy herd sheet, is supplied to the County Medical Officer.

During the year we were in no case asked to inspect or give advice regarding plans for the construction of new or the reconstruction of old Cow Sheds.

Work done under the Milk (Special Designations) (Scotland) Order, 1923.

See also list under **(d)** (6).

As at 31st December, 1929, the number of herds licensed for the production of Graded Milk within the County was 14 "certified" herds, and 23 "Grade A (Tuberculin-Tested)" herds, a total of 37 tubercle-free herds. "Grade A," 4 herds.

Compared with the figures for 1928, this shows a decrease of 2 Certified Licences, an increase of 5 Grade A (T.T.), and the same number of Grade A.

Of our 37 tubercle-free graded herds, 27 herds became eligible as at 31st December, 1929, to be tested only once a year. The other 10 herds will be tested twice per annum, and, in terms of the Order, this will be continued until under two successive testings no reactor has been disclosed.

The "prescribed tests" applied were invariably the double intradermal and ophthalmic tests.

During 1929 we tested 25 herds once and 12 herds twice, and the average number of animals tested per herd was 47.

The total number of reactors disclosed in graded herds during the year was 24. 2 herds had 5 reactors; 1 herd had 4 reactors; 1 herd had 3 reactors; 2 herds had 2 reactors; and 3 herds had 1 reactor.

All reacting animals were put into immediate isolation and were disposed of expeditiously, several by immediate slaughter.

On occasion, doubtful reactors put into isolation were re-tested after a suitable period, and the necessary steps taken.

A clinical examination of each herd was carried out during the period of each tuberculin testing, and, in addition, 65 clinical examinations of herds and relative score card assessments were carried out.

TABLE I.

STATEMENT SHOWING THE NUMBER OF HERDS INSPECTED AND THE NUMBER OF COWS EXAMINED DURING THE YEAR 1929.

	Upper Ward.	Middle Ward.	Lower Ward.	Total.
Herds inspected, ...	786	919	114	1,819
Cows examined, ...	14,109	19,448	2,676	36,233

TABLE II.

STATEMENT SHOWING THE NUMBER OF COWS FOUND TO HAVE ABNORMAL CONDITIONS OF THE UDDER.

	Upper Ward	Middle Ward.	Lower Ward.	Total.
Tuberculosis, ...	28	38	5	71
Atrophy, ...	390	655	96	1,141
Mammitis, ...	15	38	3	56
Induration (non-tubercular), ...	181	188	19	388
Eruptions, ...	20	57	—	77

TABLE III.

STATEMENT SHOWING THE NUMBER OF SAMPLES TAKEN AND THE RESULTS OF EXAMINATION.

	Upper Ward.	Middle Ward.	Lower Ward.	Total.
Number of samples taken, ...	250	312	23	585
Number found to contain tubercle bacilli, ...	30	39	5	*74
Number found to contain other infectious organisms, ...	61	92	9	†162
Number negative,...	159	181	9	349

* Taken from 71 cows. 2 samples also contained other infectious organisms.
† Taken from 157 cows.

TABLE IV.

*STATEMENT SHOWING THE NUMBER OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

District.	Tuberculosis of the Udder.			Tuberculous Emaciation.			Chronic Cough, &c.			Totals.
	Total No.	Found on Herd Inspection.		Total No.	Found on Herd Inspection.		Total No.	Found on Herd Inspection.		
		No.	%		No.	%		No.	%	
Upper Ward,	26	13	50	18	3	16·6	40	9	22·5	84
Middle Ward,	36	21	58·3	29	5	17·2	85	23	27·1	150
Lower Ward,	6	4	66·6	4	1	25	6	1	16·6	16
Totals,	68	38	58·3	51	9	19·6	131	33	22·1	250

* See Map (Appendix).

TABLE V.

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.		Private Veterinary Surgeons.		Veterinary Inspectors of other Local Authorities.		Detected by County Veterinary Inspector.		Totals.	
Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
120	135	50	36	3	1	77	79	250	251

TABLE VI.

STATEMENT SHOWING RESULT OF POST-MORTEM EXAMINATION OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

	Tuberculosis of the Udder.	Tuberculous Emaciation.	Chronic Cough, &c.	Totals.
"Advanced," ...	39	38	71	148
"Not Advanced," ...	33	13	56	102
	72	51	127	250

Contraventions of the Tuberculosis Order of 1925.

2 contraventions of the Tuberculosis Order of 1925 were reported to the Executive Committee of the County Council, and in 1 case a prosecution was instituted, a letter of warning being addressed to the offender in the other case.

A fine of £10 was imposed in the case where proceedings were instituted.

Burghs of Biggar and Lanark.

In the Burgh of Lanark 4 herds, comprising 30 cows, and in the Burgh of Biggar 1 herd, comprising 1 cow, were examined. In no case did we find any evidence of tuberculosis of the udder, nor did our inspections reveal any case amenable to the Tuberculosis Order.

I have the honour to be,

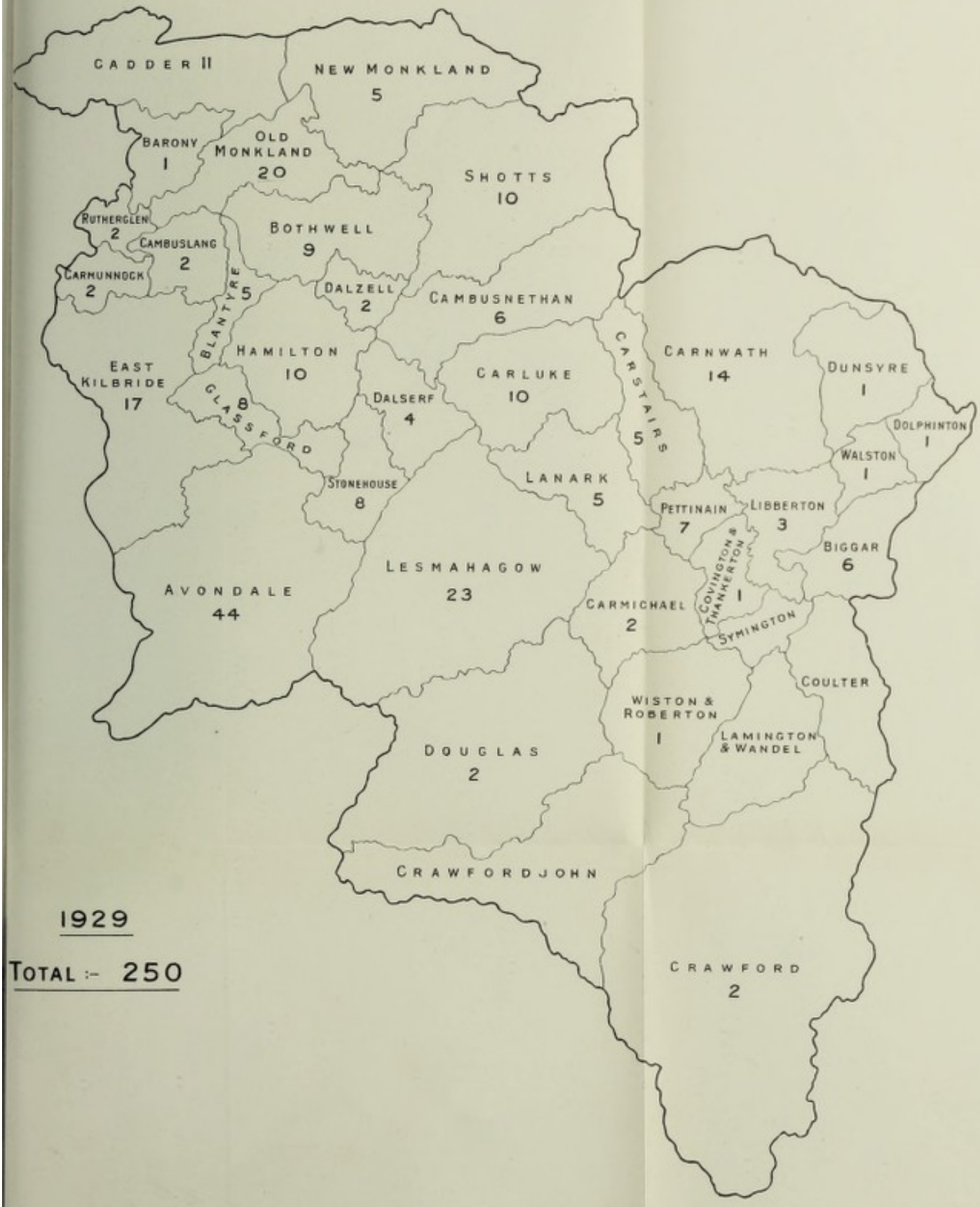
MY LORDS AND GENTLEMEN,

Your obedient Servant,

HUGH BEGG, F.R.C.V.S.,

County and District Veterinary Inspector.

APPENDIX



1929

TOTAL :- 250

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