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CITY OF BRADFORD

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ANNUAL REPORT  
OF  
MEDICAL OFFICER

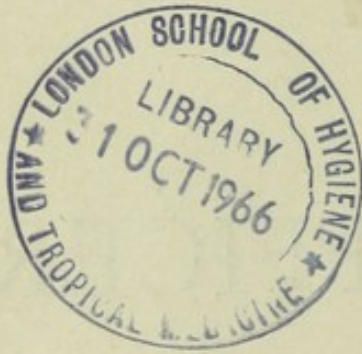
1930.

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IDLE, BRADFORD  
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## PREFACE.

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The following report on the health of the City has been compiled along the lines laid down in the Memorandum of the Ministry of Health.

The chief vital statistics for the year 1930 were :—

Estimated population	...	...	293,254
Birth-rate	...	...	14·92 per 1,000 of population
Death-rate	...	...	13·45 per 1,000 „ „
Zymotic death-rate	...	...	0·44 per 1,000 „ „
Tuberculosis death-rate	...	...	0·90 per 1,000 „ „
Infantile mortality rate	...	...	75 per 1,000 births

As compared with 1929 these figures show a decrease of 0·11 per 1,000 in the birth-rate and a decrease of 2·21 in the death-rate. There was a decrease of 0·06 in the zymotic death-rate, and a decrease of 0·11 in the tuberculosis death-rate, while the infantile mortality showed a decrease of 5.

JOHN J. BUCHAN,

*Medical Officer of Health.*

TOWN HALL, BRADFORD,

31st July, 1931.

NOTE.—The rates in this Report have been calculated on the Estimated Population of the Registrar General for 1930 as given above. While the Report was in the printer's hands the Preliminary Report of the Census for 1931 has been published, which shows that the population of Bradford on the 26th April last was 298,041. The Estimate for 1930 is probably, therefore, about 4,000 under the actual population for that year. The rates in the Report based on the population figures should therefore be rather less than those given.

## I.—VITAL STATISTICS.

*Area and Population.* The City of Bradford has an area of 24,342 acres, and the population as adjusted by the Registrar General for the middle of 1930 is 293,254.

## DISTRIBUTION AND DENSITY OF POPULATION.

Wards	Estimated Population, 1930	Area of Wards in Acres	Persons per Acre
Allerton ... ..	15,471	2,864	5·4
Bolton ... ..	10,397	1,001	10·4
Bradford Moor ... ..	23,670	680	35·0
Clayton ... ..	5,416	1462	3·7
East ... ..	15,058	385	39·1
East Bowling ... ..	16,080	565	28·1
Eccleshill ... ..	13,958	1,221	11·4
Exchange ... ..	2,620	118	22·2
Great Horton ... ..	23,334	1,289	18·1
Heaton ... ..	16,569	883	18·8
Idle ... ..	9,013	1,693	5·3
Listerhills ... ..	14,234	321	44·4
Little Horton ... ..	15,407	425	36·2
Manningham ... ..	21,522	449	48·0
North ... ..	10,492	353	29·7
North Bierley East ... ..	13,919	2,419	5·8
North Bierley West ... ..	11,968	1,863	6·5
South ... ..	12,974	303	42·8
Thornton ... ..	5,935	2,251	2·6
Tong ... ..	6,759	2,659	2·5
West ... ..	8,686	162	53·6
West Bowling ... ..	19,772	1,003	19·7
City ... ..	293,254	24,342	12·0

The average density of population varies from 2·5 persons per acre in Tong Ward to 53·6 in the West Ward.

*Births.* The number of births registered during the year was 4,376, of which 2,236 were males and 2,140 females. This gives a birth-rate for the year of 14.92 per 1,000, a decrease of 0.11 per 1,000 from last year.

AVERAGE QUINQUENNIAL BIRTH-RATES FROM 1871.

1871-75	...	39.0	1896-1900...	25.1	1921-25	...	17.9	
1876-80	...	35.6	1901-05	...	22.6	1926-30	...	15.2
1881-85	...	31.1	1906-10	...	20.1			
1886-90	...	29.8	1911-15	...	19.0			
1891-95	...	27.5	1916-20	...	15.4			

*Illegitimacy.* Of the 4,376 births registered, 259 or 5.9 per cent., were illegitimate. This rate is 0.8 per cent. higher than in 1929.

*Deaths.* The total deaths occurring in Bradford in 1930 was 4,073; after making additions and deductions of persons dying away from their place of residence the number becomes 4,020. The corrected death-rate is therefore 13.45 per 1,000, or 2.21 per 1,000 lower than in 1929.

AVERAGE QUINQUENNIAL DEATH-RATES FROM 1871.

1871-75	...	25.9	1896-1900...	17.9	1921-25	...	14.1	
1876-80	...	22.3	1901-05	...	16.3	1926-30	...	14.2
1881-85	...	19.9	1906-10	...	15.1			
1886-90	...	20.9	1911-15	...	15.5			
1891-95	...	19.7	1916-20	...	16.0			

The death-rate among the male population in 1930 was 15.12, and among the female population 12.51 per 1,000.

The birth and death-rates in the various wards of the city are set out in the table on page 7.

## BIRTH AND DEATH RATE IN EACH WARD.

Ward	Number		Rates per 1000	
	Births	Deaths	Births	Deaths
Allerton ... ..	247	196	15·97	12·43
Bolton ... ..	164	123	15·77	11·61
Bradford Moor... ..	331	314	13·98	13·01
Clayton... ..	74	77	13·66	13·95
East ... ..	259	216	17·20	14·07
East Bowling ... ..	234	205	14·54	12·51
Eccleshill ... ..	201	160	14·40	11·25
Exchange ... ..	59	40	22·14	14·98
Great Horton ... ..	293	302	12·56	12·70
Heaton ... ..	149	205	8·99	12·14
Idle ... ..	128	124	14·20	13·50
Listerhills ... ..	252	234	17·70	16·13
Little Horton ... ..	217	207	14·09	13·18
Manningham ... ..	327	306	15·19	13·95
North ... ..	198	161	18·87	15·06
North Bierley East ... ..	260	207	18·68	14·59
North Bierley West ... ..	182	149	15·21	12·22
South ... ..	231	230	17·80	17·39
Thornton ... ..	91	59	15·33	9·75
Tong ... ..	108	95	15·98	13·79
West ... ..	134	143	15·43	16·16
West Bowling ... ..	237	267	11·99	13·22
City ... ..	4,376	4,020	14·92	13·45

*Mortality at Different Ages.* The following Table shows the total deaths in each age group during the past six years.

NUMBER OF DEATHS IN EACH YEAR AT DIFFERENT AGE PERIODS.

Age	1925	1926	1927	1928	1929	1930
Under 1 year	461	435	404	307	346	327
1— 2 years	138	81	111	59	114	67
2— 5 „	104	66	106	53	88	62
5—15 „	95	72	99	84	102	85
15— 25 „	123	123	119	137	131	122
25— 45 „	444	435	473	421	439	396
45—65 „	1233	1142	1255	1180	1342	1203
over 65 „	1457	1567	1704	1684	1966	1758

The infantile mortality rate for 1930 was 75 per 1,000 births, as against 80 for 1929. The mortality between one and sixty-five years was 7.1 per 1,000, and over sixty-five years 102.5 per 1,000.

*Public Institutions.* The accommodation in all kinds of institutions available for Bradford amounts to more than 3,500 beds or 1.2 per cent. of the population or about 1 in 80.

## VOLUNTARY HOSPITALS, 1930.

Hospital	Number of beds	Character of cases	Cases admitted to Hospital	Cases treated in outdoor departments
Bradford Royal Infirmary ...	215	General ...	4,267	16,059*
Bradford Children's Hospital	74	Children ...	1,688	3,865
Royal Eye and Ear Hospital...	94	Eye and Ear	3,635	11,487
Totals ... ..	383	—	9,590	31,411

\* Exclusive of dental cases.

At the out-patient department of the Bradford Royal Infirmary 9,721 persons were treated as out-patients, and 6,338 as casualty cases, and 762 as dental cases. The number of attendances made by out-patients was 56,943, and by casualty cases 27,964. At the orthopædic department 55,484 treatments were given.

The total number of patients admitted to municipal hospitals in 1930 was 9,497. The nature of the cases is given elsewhere in this report in dealing with each hospital. On the 31st December, 1930, there were 180 patients maintained in institutions for the mentally defective.

At the end of the year the number of persons in receipt of relief in the Bradford Union was : Institutional, 1,261, and Domiciliary, 5,944, equal to 24·9 per 1,000 of the population.

## PROPORTION PER 1,000 OF POPULATION IN RECEIPT OF RELIEF.

	Indoor	Outdoor	Total Chargeable
England and Wales ... ..	5·4	19·3	24·7
Bradford Union ... ..	4·4	20·5	24·9

The number of deaths in public institutions is given in the tables on pages 10 and 11.

## DEATHS IN PUBLIC INSTITUTIONS.

Name of Institution	1928	1929	1930
Bradford Public Assistance Institutions ... ..	54	82	73
Clayton Public Assistance Institution ... ..	54	64	56
Other Public Assistance Institutions ... ..	5	5	6
Menston Asylum ... ..	45	52	37
Storthes Hall Asylum ... ..	14	12	30
Other Asylums ... ..	8	6	4
Royal Infirmary ... ..	194	197	181
Children's Hospital ... ..	42	76	76
Eye and Ear Hospital ... ..	4	13	11
St. Catherine's Home ... ..	1	11	8
Other Voluntary Hospitals ... ..	25	22	13
St. Luke's Hospital ... ..	899	967	914
Leeds Road Hospital ... ..	21	70	41
Bierley Hall Hospital ... ..	30	42	34
Grassington Sanatorium ... ..	22	4	5
North Bierley Joint Hospital ... ..	3	2	—
Calverley Joint Hospital... ..	2	1	2
Other Institutions ... ..	7	5	5
<b>Total ... ..</b>	<b>1,430</b>	<b>1,631</b>	<b>1,496</b>

It will be noted that in 1930, 135 deaths, or 3·0 per cent. of the total deaths, occurred in Public Assistance Institutions; 71 deaths, or 1·8 per cent., in Lunatic Asylums; 289 deaths, or 7·2 per cent., in Voluntary Hospitals; and 996 deaths, or 24·8 per cent., in Municipal Hospitals.

The percentage of the total deaths in the city occurring in public institutions in 1930 was 37·2.

The age incidence of deaths in Public Institutions is shown in the following Table :—

	Public Assistance Institutions	Lunatic Asylums	Voluntary Hospitals	Municipal Hospitals	Other Institutions	Total	Per cent. of Deaths at each age.
Under 1	—	—	44	90	4	138	42·2
1— 2	—	—	15	15	—	30	44·8
2— 5	—	—	12	26	—	38	61·3
5—15	1	—	26	29	—	56	65·9
15—25	—	3	12	49	—	64	52·5
25—45	3	15	54	135	1	208	52·5
45—65	23	39	84	306	—	452	37·6
65 and over	108	14	42	346	—	510	29·0
Total ...	135	71	289	996	5	1496	37·2

*Certification of Deaths.* 3,513 deaths, or 87·4 per cent., were certified by medical practitioners, and 357, or 8·9 per cent., by the coroner after inquest, and 150, or 3·7 per cent., where, after enquiries were made by the coroner, it was found that inquests were unnecessary. The table on the following page shows the causes of death as found at the inquests held.

RETURN SHOWING THE NUMBER OF INQUESTS HELD, AND VERDICTS  
RETURNED DURING THE YEAR ENDED 31ST DECEMBER, 1930.

CAUSE OF DEATH	Wilful Murder	Manslaughter	Temporary Insanity	Intemperance	Anthrax	Accidental	Abortion	Natural and Un-known Causes	Open Verdicts	Totals	Remarks
Violence... ..	1	1	...	...	...	...	...	...	...	2	
Burns and Scalds	...	...	...	...	...	12	...	...	...	12	
Railways	...	...	...	...	...	2	...	...	...	2	
Motor Vehicles...	...	...	...	...	...	40	...	...	...	40	
Other Conveyances	...	...	...	...	...	7	...	...	...	7	
Machinery	...	...	...	...	...	5	...	...	...	5	
Falls	...	...	...	...	...	48	...	...	...	48	
Suffocation	...	...	...	...	...	5	...	3	...	8	
Drowning	...	...	...	...	...	...	...	...	3	3	
Poisoning	...	...	...	...	...	6	...	...	...	6	
Other Causes	...	...	...	4	1	...	2	...	...	7	
SUICIDES:—											
Drowning	...	...	7	...	...	...	...	...	2	9	
Hanging	...	...	5	...	...	...	...	...	...	5	
Poisoning	...	...	22	...	...	...	...	...	6	28	
Other Means	...	...	6	...	...	...	...	...	...	6	
Natural and Un-known Causes...	...	...	...	...	...	...	...	169	...	169	
Totals	1	1	40	4	1	125	2	172	11	357	

There were also 150 cases where, after enquiries were made, the Coroner found that Inquests were not necessary.

TABLE A.

VITAL STATISTICS OF BRADFORD FROM 1899.

Year	Population	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Mortality Rate
1899	226,373	24·3	18·4	2·43	181
1900	278,634	24·1	17·1	1·43	141
1901	279,969	23·0	16·7	1·86	168
1902	280,833	23·3	15·7	1·38	138
1903	281,799	23·4	16·2	1·32	148
1904	282,568	22·2	17·4	2·43	167
1905	283,441	21·3	15·3	1·45	144
1906	284,314	20·9	16·2	1·97	152
1907	285,189	20·1	14·7	0·91	124
1908	286,071	21·0	15·7	1·46	143
1909	286,954	19·2	14·6	0·68	116
1910	287,839	19·1	14·3	1·26	127
1911	288,723	19·0	15·0	1·60	140
1912	289,618	19·3	14·5	0·82	98
1913	290,540	19·6	15·1	1·10	128
1914	291,482	19·6	15·7	1·22	122
1915	*280,737	17·4	16·9	1·22	123
1916	*271,105	16·67	15·99	0·61	118
1917	*266,338	13·06	15·34	0·81	132
1918	*259,707	13·30	19·13	1·07	123
1919	*282,714	13·40	16·27	0·31	113
1920	293,979	20·52	13·31	0·42	93
1921	291,100	19·57	13·72	0·66	109
1922	291,300	17·92	14·02	0·36	87
1923	290,800	18·19	13·75	0·48	78
1924	290,200	16·94	14·86	0·31	92
1925	290,200	16·63	13·97	0·65	95
1926	288,700	16·31	13·58	0·47	92
1927	293,200	14·73	14·57	0·52	92
1928	288,500	15·32	13·60	0·38	69
1929	289,200	15·03	15·66	0·50	80
1930	293,254	14·92	13·45	0·44	75

\* Civil population.

## II.—SANITARY CIRCUMSTANCES OF BRADFORD.

(A) *Water.* The water supply of Bradford, as provided by the Corporation Waterworks, is obtained from several upland surface sources and is distributed throughout the city by gravitation. The supply is constant and the water is generally soft. At the end of the year there were 62 farms and 217 houses in isolated localities in the city not connected with the Corporation mains. Ten years ago there were 90 farms and 390 houses in the city not so connected. Of the several sources of supply, only one exhibits in its natural state any plumbo-solvency. This is the supply from Thornton Moor, 1,241 feet above sea level, where water is collected from peaty uplands to the west of the city. This water is treated at the reservoir to reduce the degree of plumbo-solvency.

*Average Results of Analyses for Plumbo-solvency of Water as distributed.*

	Grains per Gallon			
	Lead	Lead taken up in 24 hours	Alkalinity	Hardness
<b>THORNTON MOOR WATER SUPPLY.</b>				
72 samples before 8 a.m. ....	0·02359	0·0388	0·6111	3·5388
72 samples after 1 p.m. ....	0·0043	0·0487	—	—
<b>INTERMEDIATE LEVEL SUPPLY.</b>				
52 samples before 8 a.m. ....	0·0214	0·0423	0·8596	2·7582
52 samples before 1 p.m. ....	0·0012	0·0686	—	—
<b>LOW LEVEL WATER SUPPLY.</b>				
30 samples before 8 a.m. ....	0·0020	0·0586	2·2366	3·7816
30 samples after 1 p.m. ....	0·0003	0·0560	—	—

The number of notices served to secure a proper water supply (Sec. 53 Bradford Corporation Act, 1925) was 73, affecting 157 houses and farms.

(B) *Drainage and Sewerage.* There are 211 farms and 983 houses not connected with the Corporation sewers, 35 of the farms and 84 houses being in the Clayton area. Seventeen houses have been connected during the year and four cesspools have been abolished.

(C) *Closet Accommodation and Scavenging.* During the year 404 new water closets were provided. These included 127 additional Water closets for dwelling-houses. Eighty water closets were substituted for waste water closets (tipper), and 82 were substituted for privies, the ashpits in connection with them being replaced by dust bins. Eighty-seven water closets were provided for factories and workshops, and 28 for other premises.

ESTIMATE OF SANITARY ACCOMMODATION AT THE END OF 1930.

(i.) **Dwelling-houses.**

	No. of Houses	Water Closets	Waste Water Closets	Privies
<b>WATER CLOSETS.</b>				
More than one sanitary convenience to each house ...	6770	11895	480	30
One to each house ...	50724	50724	—	—
Less than one to each house ...	20400	10567	—	—
<b>WASTE WATER CLOSETS.</b>				
One to each house ...	7076	—	7076	—
Less than one to each house ...	124	—	62	—
<b>PRIVIES.</b>				
One to each house ...	100	—	—	100
Less than one to each house ...	127	—	—	74
Totals ...	85323	73186	7618	204

**SUMMARY.**

	Number	Percentage
Houses with water closets ...	77,894	91·29
Houses with waste water closets ...	7,200	8·43
Houses with privies only ...	227	0·28

(ii.) **Business and other Premises**

	No. of Premises	Water Closets	Privies
Factories, workshops, and other business premises ...	4821	12707	34
Places of worship, schools, public institutions, clubs, &c.	682	4650	32
Totals ...	5503	17357	66

					1930.
Number of water closets	...	...	...	...	90,453
Number of waste water closets	...	...	...	...	7,618
Number of privies	...	...	...	...	270
					———— 98,431
Number of wet ashpits	...	...	...	...	170
Number of dry ashpits	...	...	...	...	21,436
Number of dust bins	...	...	...	...	49,448
					———— 71,054

These figures include the newly-added area of Clayton, in which area at the time of incorporation were 1,589 houses, 1251 of which were provided with water closets, and 117 with waste water closets.

PROGRESS OF CONVERSION OF PRIVIES AND PROVISION OF ADDITIONAL  
WATER CLOSET ACCOMMODATION, 1906-1930.

Year	Dwellinghouses		Factories and Workshops		Other Premises		Totals	
	W.C's.	Privies	W.C's.	Privies	W.C's.	Privies	W.C's.	Privies
1906	983	—	180	—	—	32	1163	32
1907	823	—	246	—	15	24	1084	24
1908	1854	25	254	2	78	5	2188	32
1909	1969	12	194	2	28	1	2191	15
1910	1945	18	217	2	—	—	2162	20
1911	2128	8	202	—	35	2	2365	10
1912	2917	9	196	—	95	—	3208	9
1913	3990	1	160	—	88	—	4238	1
1914	3123	1	127	—	14	—	3264	1
1915	2028	—	151	—	50	—	2229	—
1916	155	—	128	—	16	8	299	8
1917	30	—	70	—	—	—	100	—
1918	27	1	125	—	6	—	158	1
1919	77	5	135	—	22	—	234	5
1920	461	—	223	—	29	—	713	—
1921	1108	—	158	—	30	—	1296	—
1922	1654	—	134	—	25	—	1813	—
1923	2124	—	131	—	20	—	2275	—
1924	1503	—	89	—	31	—	1623	—
1925	1598	—	97	—	25	—	1720	—
1926	1363	—	107	—	43	—	1513	—
1927	834	—	101	—	64	—	999	—
1928	432	—	115	—	32	—	579	—
1929	369	—	111	—	19	—	499	—
1930	289	—	87	—	28	—	404	—

The number of times each ashpit was emptied by the Cleansing Department during the year was on the average 9. The dust bins are emptied each week.

During the period under review, 237 personal applications were made to the Sanitary Office for the cleansing of ashpits, as against 253 the previous year. One hundred and fifty-four applications were received through the post, as against 250, and 405 were made by the Sanitary Inspectors, as against 725 the previous year, the total being 796, as against 1,228 for the previous year. During the year 9,224 dust bins have been provided and 6,502 ashpits abolished.

Two hundred and seventy-three plans have been approved by the Health Committee for the construction of works, as follows:—282 water closets affecting 332 dwelling-houses; 3 water closets affecting 3 licensed premises; 2 urinals affecting 2 licensed premises; 103 water closets and 3 urinals affecting 72 factories and workshops; 24 water closets and 2 urinals affecting schools, clubs, and other premises.

(D) *Sanitary Inspection of District.* The number of tests to drains and sanitary fittings made by the Sanitary Inspectors during the year was 3,079, of which 1,413 were volatile tests with 271 positive results, 1,623 were coloured water tests with 272 positive results, 43 smoke tests with 19 positive results. In 402 of the houses tested infectious disease was present, in 277 cases diphtheria with 14 positive results, in 4 enteric fever with no positive results, and in 121 other diseases with 7 positive results. In 36 cases the system of drainage was such as to render impracticable the application of a test.

The drainage of 22 blocks of property, comprising 165 houses, was dealt with under Section 41 of the Public Health Act, 1875, as against 141 houses last year. The defects were found as the result of tests applied to the drains. In 6 cases after complaints of water in cellars, in 9 cases of bad smells in the cellars, in 4 cases after cases of infectious disease, and in 2 cases as the result of defects found during the course of work in progress. All these were dealt with by the City Surveyor after being referred to him by the Health Committee, and where necessary notices were served by this department for private drainage work.

The total number of downspouts disconnected from drains and sewers was 210 as against 130 last year. Accounts have been received and passed for payment for the disconnection of 78 downspouts at 85 houses, as against 41 downspouts and 50 houses last year. The total cost of the work involved was £157 14s. 1d., or an average of £2 0s. 1d. per downspout. The total amount payable by the Corporation was £73 16s. 5d.

The District Sanitary Inspectors have made 93,522 inspections and visits for the investigation and suppression of nuisances. The total number of nuisances reported was 8,525. The following statement shows the nature and the amount of work performed by the Inspectors during the year, together with the figures for the five preceding years for comparison.

PARTICULARS OF WORK DONE, 1925-1930.

<i>Drainage and Sanitary Arrangements—</i>	<i>No. of Cases.</i>					
	1925	1926	1927	1928	1929	1930
Choked drains cleansed ... ..	1276	1314	1135	904	614	862
Drains amended ... ..	748	733	651	592	643	734
Drains reconstructed ... ..	1190	868	604	410	387	510
Extra drains provided ... ..	512	515	170	124	130	178
Cellars drained ... ..	75	65	49	28	41	27
Drains underneath houses abolished ...	35	20	16	7	15	40
Drainage systems intercepted from sewers	34	30	16	7	8	22
Open drain inlets trapped ... ..	7	6	6	5	23	28
Waste pipes trapped ... ..	36	27	30	21	47	87
Waste Pipes disconnected ... ..	47	49	67	42	59	109
Rain water pipes disconnected ... ..	328	283	196	133	130	210
Rain water conductors repaired or renewed ... ..	1628	1757	1278	1128	1001	1181
House sinks repaired or renewed ... ..	82	108	64	101	144	138
New house sinks provided ... ..	58	56	56	55	84	137
Water closet pedestals renewed ... ..	117	113	92	138	264	153
Water closets and flushing apparatus repaired ... ..	317	354	246	287	532	297
Water closets cleansed ... ..	144	109	78	78	45	49
Water closet apartments cleansed and limewashed ... ..	784	542	518	487	410	413
Water closet apartments properly lighted and ventilated ... ..	—	4	3	5	15	12
Soil pipes repaired or renewed ... ..	31	31	23	23	37	34
Indoor soil pipes abolished ... ..	3	—	—	4	1	—
Urinals cleansed, amended or screened	18	14	7	11	9	18
Urinals remodelled ... ..	2	7	9	2	5	5
New urinals provided ... ..	2	3	4	5	3	1
<i>Privies and Ashpits—</i>						
Privy structures abolished ... ..	91	130	88	57	55	46
Deposit of slops in ashpits prohibited	32	12	8	5	45	18
General repairs executed ... ..	882	825	639	458	318	195
Privy apartments cleansed and lime-washed ... ..	85	48	44	29	22	20
Dust bins repaired or renewed ... ..	487	856	621	662	570	829
Ashpits abolished ... ..	—	—	—	20	1611	6502

	No. of Cases.					
	1925	1926	1927	1928	1929	1930
<i>Dwelling-houses, etc.—</i>						
Dampness excluded ... ..	179	241	190	224	127	298
Roofs repaired ... ..	550	461	341	343	168	334
General repairs executed ... ..	650	790	528	558	486	739
Houses or parts cleansed or limewashed	195	242	216	158	132	129
Ventilation improved ... ..	14	35	27	10	34	22
Overcrowding abated ... ..	17	28	29	33	47	28
Cellar areas cleansed ... ..	24	13	8	11	4	26
Caravans removed ... ..	25	26	51	45	112	35
Houses reported for provision of W.C.'s	990	1102	470	385	108	67
Houses reported for privies ... ..	—	26	23	3	—	2
<i>Courts, Back-yards, Stable-yards, etc.—</i>						
Paving repaired in yards and passages	271	182	208	147	163	236
Yards and passages newly paved ...	9	9	15	5	4	4
Yards repaved ... ..	—	—	—	2	3	13
Yards cleansed ... ..	157	90	113	80	92	78
Passages cleansed and limewashed ...	174	170	311	360	226	176
<i>Keeping of Animals, etc.—</i>						
Improper keeping of swine prohibited	8	14	3	7	4	—
Improper keeping of fowls prohibited ...	54	49	25	19	18	11
Accumulations of offensive matter removed ... ..	133	145	124	79	92	65
Accumulations of manure removed ...	54	50	51	48	33	16
Manure pits repaired ... ..	1	—	5	1	3	3
Manure pits provided ... ..	—	1	1	—	—	—
<i>Miscellaneous Nuisances—</i>						
Dangerous places made secure ... ..	108	103	91	38	77	55
Effluvia nuisances abated ... ..	16	33	17	15	39	17
Other unclassified nuisances abated ...	327	104	539	96	44	99
<i>Special Inspections—</i>						
Graveyards ... ..	41	51	121	150	46	51
Offensive trade premises ... ..	247	213	186	273	355	396
School inspections ... ..	642	637	750	719	832	812
Zymotic disease investigated and subsequent visits made ... ..	3322	4654	16903	23068	10793	6320
Complaints specially investigated ...	2337	1985	1620	1625	1586	1767

During the year 1,192 complaints as to nuisance were received, as against 1,153 the previous year. The number of statutory notices served for the abatement of nuisances was 2,442, as against 2,289 last year. The number of notices served for the abolition of ashpits was 3,187, and the number of notices served for the provision of dust bins was 3,618. The houses affected by the ashpit notices were 9883 and the houses affected by dust bin notices were 9,366. The number of preliminary notices served for dangerous places to be made secure was 21, as against 30 the previous year. There were 55 of these places dealt with, as against 77 last year. Twelve cases were heard at the City Court for failing to obey notices issued from this department, 10 cases were withdrawn the work having been done either before the hearing of the case or during the time of adjournment. The remaining 2 cases (overcrowding of dwelling-houses) were dismissed. Costs amounting to £2 6s. 0d. were inflicted in the 10 cases. Under the

provisions of the Bradford Corporation Act, 1928, Section 53, relating to caravans, 36 cases were heard in the Police Court against caravan dwellers and caravan owners and also the owners of the land on which the caravans were placed for failing to comply with the requirements of the Act. In 7 cases fines were inflicted amounting in the aggregate to £4 15s. 0d. The remaining cases were withdrawn on payment of costs amounting to 48s.

The number of visits made to Burial Grounds in the City was 51, as against 46 last year. No irregularities were observed. Under the terms of licenses issued from the Home Office the District Inspectors supervised the exhumation and reinterment of five bodies, two at Bowling Cemetery, one at Tong Cemetery, one at Thornton Church Yard, and one at Allerton Wesleyan Methodist Burial Ground.

During the year the Woman Sanitary Inspector has made 312 visits to the women's conveniences in the public streets, parks, cemeteries and recreation grounds, for the purpose of making inspection as to the condition of the conveniences set apart for the use of females, with the result that in 2 instances nuisances were found. These were notified verbally to the person in charge and abated.

(E) *Workshop and Shop Inspection, etc.***(1) FACTORIES, WORKSHOPS AND WORKPLACES.****I.—INSPECTIONS (INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS).**

Premises	Number of		
	Inspections	Written Notices	Prosecutions
FACTORIES ... .. (Including Factory Laundries)	826	43	...
WORKSHOPS ... .. (Including Workshop Laundries)	2305	62	...
WORKPLACES ... .. (Other than Outworkers' premises)	360	40	...
TOTALS ... ..	3491	145	...

**II.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.**

Particulars	Number of Defects			Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts:*</i>				
Want of cleanliness ... ..	76	74	...	...
Want of ventilation ... ..	30	29	...	...
Overcrowding ... ..	2	1	...	...
Want of drainage to floors ... ..	14	14	...	...
Other nuisances ... ..	529	520	...	...
Sanitary accommodation				
insufficient ... ..	65	56	...	...
unsuitable or defective	77	72	...	...
not separate for sexes	40	35	...	...
<i>Offences under the Factory and Workshop Act:—</i>				
Illegal occupation of underground bake-house (S. 101) ... ..	2	2	...	...
Other offences (excluding offences relating to outwork and offences under the sections mentioned in the schedule to the Ministry of Health (Factories and Workshops, Transfer of Powers Order, 1921) ... ..	...	...	...	...
TOTALS ... ..	835	803	...	...

\* Including those specified in Sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

## III.—REGISTERED WORKSHOPS, ETC.

Workshops on the Register (S.131) at the end of the year	Number
Workshops ... ..	2061
„ Bakehouses ... ..	394
Factory Bakehouses ... ..	124
Total ... ..	2579

## IV.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories:—	
Failing to affix Abstract of the Factory and Workshop Acts (S. 133), 1901 ... ..	32
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Act, but not under the Factory and Workshop Act (S. 5), 1901	72
Other Reports to H.M. Inspectors ... ..	
Underground Bakehouses (S. 101):—	
Workshop Bakehouses in use at the end of the year ... ..	22
Factory Bakehouses in use at the end of the year ... ..	12
Homework—Secs. 107 to 110:—	
Employers failing to keep list of outworkers (form 44) ... ..	7
Notices served on employers for failing to keep or send in lists ... ..	415
List of outworkers not received ... ..	1
Cases of outwork in infected and unwholesome premises ... ..	...
Outworkers visited ... ..	285
Prosecutions for failing to send in list of outworkers ... ..	1
Limewashing and painting of Bakehouses (S. 99):—	
Occupiers requested to limewash or cleanse walls and ceilings of bakehouses ... ..	146

## (2) SHOPS ACTS, 1912—1928.

*Shops Inspected.* The total number of shops on the Register is 7,638, and the number of visits and investigations made was 5,090. The number of shops visited in which young persons were employed was 451, and in 94 instances the employers had failed to exhibit the notice referring to the specific provisions of the Act. With one exception the employers were cautioned. Visits were made to 622 shops where female assistants were employed, and in all cases seats were provided for the assistants as required by the Act.

In 28 shops no notice specifying the day of the weekly half-holiday was displayed, and the offenders were all cautioned. In 53 instances

shops were found open and the occupiers selling non-exempted articles on the weekly half-holiday, and two persons were found hawking on the day fixed for the closing of shops. Four of these offenders were prosecuted, and the remainder cautioned. The occupiers of 141 shops were found not displaying the notices specifying the exempted trades for which they were remaining open after the closing hour of the weekly half-holiday, and they were all cautioned. In 231 cases employers had failed to provide the prescribed form relating to their assistants' weekly half-holiday; one employer was prosecuted, and the remainder cautioned. In 4 shops assistants were found employed after half past one o'clock on their specified weekly half-holiday, and the employers were cautioned. In 7 shops assistants were not being allowed correct intervals for meals; one employer was prosecuted, and the remainder cautioned.

*Closing Orders.* During night visits and observations after the closing hours affecting certain classes of shops, 2 shops were found open after the prescribed closing hour. In 64 shops official copies of Closing Orders, etc., were not displayed. All these offenders were cautioned.

*Shops (Hours of Closing) Act, 1928.* As a result of night inspections 19 shop keepers and 2 hawkers were found carrying on business after the closing hour. One offender was prosecuted, and the remainder cautioned.

### PROSECUTIONS

The following is a summary of the prosecutions taken under the Shops Acts, etc.

Nature of Offence.	No. of Cases.	Penalties.	Costs.
<i>Shops Act, 1912</i>			
Shops open after closing hour on weekly half-holiday	4	£ s. d. 1 0 0	£ s. d. 0 8 0
Failing to allow correct meal intervals for shop assistants ... ..	1	1 0 0	0 5 0
Failing to affix prescribed form relating to half-holiday of assistants ... ..	1	Dismissed	
Failing to affix Abstract relating to hours of young persons ... ..	1	Dismissed	
<i>Shops (Hours of Closing) Act, 1928</i>			
Shop open after closing hour ... ..	1	1 0 0	
<i>Factory &amp; Workshop Act, 1901</i>			
Failing to send in list of Outworkers ... ..	1	1 0 0	0 2 6
Totals ... ..	9	£4 0 0	£0 15 6

### (3) RAG FLOCK ACT, 1911—1928.

During the year 19 samples of rag flock were submitted to the City Analyst, and they were all found to comply with the standard of cleanliness laid down in the Regulations under the Act.

(F) Premises, Etc., Controlled by Bye-laws or Regulations.

#### (1) COMMON LODGING HOUSES.

At the end of the year there were 16 registered common lodging houses in the city, comprising 97 sleeping rooms, and affording nightly accommodation for 790 males, 22 females, and 24 couples.

The total number of persons accommodated during the year was 190,865, as against 205,756 the previous year. The nightly average was 522, representing 60·7 per cent. of the accommodation available. This shows a decrease of 6·0 per cent. on the previous year.

The following table shows the number of nights spent by single men, women, young persons, and couples in common lodging houses during the year :—

ADULTS			8 to 21 years		Under 8 years	
Males	Females	Couples	Males	Females	Males	Females
170551	5526	6726	376	42	276	642

The whole of the houses have been limewashed and cleansed in accordance with the Public Health Act, 1875.

Five applications for transfer of Registry as keepers were granted during the year.

The total number of inspections made during the year was 694, all of which were day visits, and it was found unnecessary to make any serious complaint in any case. There have been no cases of infectious disease reported during the year in any Common Lodging House. No difficulties have been experienced in gaining admittance and it has not been necessary to resort to Police Court proceedings.

## (2) CANAL BOATS.

The number of boats inspected within the city boundary during the year was 31. With one exception the structural and sanitary conditions of all these was satisfactory. In the exception above mentioned the cabins of the boat were found to be not weatherproof and dry. A notice was served in respect to this defect, which was outstanding and had not been written off at the end of the year. The defects for which notices were outstanding at the end of the previous year were remedied during the year under review.

## (3) OFFENSIVE TRADES, Etc.

The number of offensive trades within the city is 346, of which 295 are fish friers. Two hundred and thirty-five of the fish friers and one other trade are subject to annual license. The number of visits of inspection made to fish friers was 836, and to other offensive trades 396. One prosecution for establishing an offensive trade without the consent of the Local Authority to wit :—the trade of fish frier, was undertaken during the year and a penalty of £1 was imposed.

#### (4) SCHOOLS.

The number of visits made for the sanitary inspection of schools was 820, as against 832 last year. Minor defects have been noted and remedied at various schools.

#### (5) INSPECTION OF CINEMAS AND OTHER PLACES OF PUBLIC ENTERTAINMENT.

The periodical inspection of these places was carried out as usual by the District Sanitary Inspectors, and 159 recorded inspections have been made during the year. Minor defects which were observed were remedied on the attention of the management being called thereto. A number of visits were made during the year in regard to the exclusion of children from cinemas owing to the prevalence of zymotic disease, but no breaches of the law were observed.

#### (G.) *Other Sanitary Work.*

##### (1) SMOKE INSPECTION.

During the year 62 chimneys were found to be discharging black smoke for more than a total of 3 minutes in the half hour. The firms concerned were notified in writing within 24 hours of the period of smoke emission, and notices to abate the nuisances were served in each case. The average discharge of black smoke in these cases was 6.1 minutes in 30. Seven firms again discharged excessive smoke from their chimneys, and Court proceedings were instituted with the results as shown :—

SUMMARY OF PROSECUTIONS TAKEN UNDER THE PUBLIC HEALTH  
(SMOKE ABATEMENT) ACT, 1926.

Black smoke dis- charged mins. in 30.	Particulars of Plant	Method of firing	Cause of smoke	Penalties and Costs
7	Five Lancashire Boilers	Machine	Excessive restriction of draught (Withdrawn after improvement) ... ..	£ s. d. —
5½	Five Lancashire Boilers	Machine	Insufficient draught plant and excessive dragging of fires (withdrawn after alterations) ... ..	—
4	One Cornish Boiler ...	Hand ...	Heavy spread firing (costs only ... ..)	0 7 0
6	One Lancashire Boiler ...	Hand ...	Heavy spread firing ...	2 0 0
5	One Lancashire Boiler ...	Hand ...	Heavy spread firing (costs only) ... ..	0 7 0
8½	Five Lancashire Boilers	Hand ...	Heavy spread firing ...	5 0 0
6	One Lancashire Boiler ...	Hand ...	Furnaces neglected; Fireman engaged on other duties...	2 0 0
			Total ...	£9 14 0

In only 1 case was an alteration to the existing plant necessary to prevent smoke, in all the other cases the excessive smoke discharges were brought about by some form of negligent boiler management. Compared with many previous years there has been a considerable reduction in the number of firms found to be discharging black smoke in excess of the time limit. This has been reflected in the number of prosecutions, which are much lower than the average for the past 10 years. This reduction in the black smoke offences may or may not be permanent but it is attributed to, chiefly, the less tendency to force the rate of combustion beyond the capacity of the boiler plant; and an increased desire for better instruction and knowledge in boilerhouse management and smoke prevention, resulting in more conscientious and painstaking work by the boilermen.

Several firms have installed soot and fuel dust blowers to their Lancashire boiler plants during the past few years, and instead of withdrawing the flue grit and soot by hand or pneumatic means a considerable portion is blown up the chimney by steam jets. Usually the apparatus consists of a number of steam pipes which are carried around the whole of the boiler flues. About 30 steam nozzles are fitted to various points. A so-called brick, baffled collecting chamber is

sometimes fitted near the chimney base and is connected by flues to the chimney. In operation the steam jets are blown daily or nightly, in succession, through the internal flues, the external flues and economiser chamber, this carries the soot and flue grit around the plant and into the collecting chamber where a portion settles, the remainder being emitted from the chimney in grey or black clouds. Under usual working conditions it is impossible to distinguish the grit and smoke emissions from smoke when viewed from the ground level, it is dispersed as smoke and does not settle to the ground within half a mile of its centre of distribution. In some cases the grit and sooty matter is only discharged at night time.

In July two gauges for the collection and measurement of atmospheric deposit were put into use, one being installed in the centre of the city which might be considered as mainly an industrial area; the other being placed out about 2 miles to the north of the city centre where the district is mainly residential. Deposits are collected and analysed monthly. The average for 6 months during which the gauges have been in operation is as shown:—

TONS PER SQUARE MILE.

Total Deposit Soluble and Insoluble	Tarry Matter	Carbonaceous Matter (Combustible)	Ash	Two Soluble Matters in Total Deposit	
				Sulphates (S.O <sub>3</sub> )	Chlorine (Cl.)
CENTRAL 35.05 ...	0.99	15.90	18.16	4.32	1.69
NORTH 17.67 ...	0.40	8.27	9.00	2.79	1.36

**(2) THE RATS AND MICE DESTRUCTION ACT, 1919.**

The following is a summary of the work performed by the Corporation Rat Catcher under the operation of the above-named Act.

The figures for the five previous years are given for comparison:—

	1925	1926	1927	1928	1929	1930
No. of complaints dealt with	46	85	54	51	36	35
No. of Poison baits set ...	1447	2207	1085	1459	345	10
No. of Poison baits taken ...	695	1100	466	617	119	—
No. of rats caught alive ...	1802	1927	2487	2940	2352	1791
No. of rats caught dead ...	220	351	186	289	18	—
Total ...	2022	2278	2673	3229	2370	1791

The charges made for the Rat

Catcher's services amounted

to a sum equal to the

percentages as given of the

wages paid to him ...

54% 39% 40% 27% 4% 6%

## III.—FOOD.

## (A) MILK SUPPLY.

Report by W. HALSTEAD, M.R.C.V.S., Veterinary Inspector.

There is an average dairy cow population in Bradford of 4,133 animals, housed in 264 dairy farms. The amount of milk produced by these cows is estimated at 9,500 gallons per day, whilst about 8,000 gallons come into the city by train or road; the total amount of milk consumed in the city being about 17,500 gallons daily, representing about 0·4 pints per head of the population for all purposes.

The dairy herds were regularly inspected during the year, 430 visits being made to the dairy farms in the city. Fourteen cases of Tuberculosis were observed amongst the cattle, 11 of which were affected with Tuberculosis of the Udder. These 11 were members of 11 herds, with a total daily milk production of 660 gallons. The remaining 3 cows were affected with Tuberculosis in various other forms. The number of samples taken for bacteriological examination was 209, of which 111 were for biological tests.

*Tuberculosis Order, 1925.* Of the above mentioned 14 cows, 13 were slaughtered under the provisions of this Order; on post-mortem examination 6 showed the disease as not advanced; whilst in the remaining 7 cows the lesions were those of advanced Tuberculosis. The amount of compensation paid to the owners was £125 3s. 10d., and the nett salvage received for the disposal of the carcasses, etc., was £76 4s. 5d. In the case of the other cow, the owner elected to have this animal slaughtered on his own behalf. The slaughter was carried out at the Public Abattoir.

*Contagious Abortion.* During the routine inspection of dairy cows, definite clinical evidence of contagious abortion was noted in 5 herds. The estimated quantity of milk produced on these farms was 150 gallons daily. No cases of Undulant Fever attributable to the consumption of milk from these herds were reported.

*Milk and Dairies Consolidation Act, 1915.*

*Biological Examination of Milk for Tuberculosis.* Five hundred and forty-one samples were taken; 276 sources were outside and 265 were inside the city. Seven samples from outside sources were reported as positive for B. Tuberculosis, and from 2 farms 2 cows with Tuberculosis of the Udder were slaughtered by the authorities concerned. On the

five remaining farms the source of the contamination could not be traced. Six samples from farms inside the city were also reported positive, and from 3 farms the affected animals were slaughtered. On the three remaining farms the source of the contamination could not be traced.

*The Milk (Special Designations) Order, 1923.* There is one herd in the city producing under this Order about 40 gallons of Grade "A" Tuberculin Tested milk per day, and 9 herds producing 619 gallons of Grade "A" milk per day.

#### SUMMARY.

Number of city dairy farms	...	...	...	...	264
Average dairy cow population	...	...	...	...	4133
Number of visits to city farms	...	...	...	...	430
Number of visits to farms outside the city	...	...	...	...	2
Number of county cows inspected	...	...	...	...	18

Cows affected with:—

(1) Tuberculosis of the Udder:

Slaughtered (a) Not advanced	...	...	...	7	
(b) Advanced	...	...	...	3	
				—	10

(2) Clinical Tuberculosis (other forms):

Slaughtered (a) Not advanced	...	...	...	0	
(b) Advanced	...	...	...	3	
				—	3

(3) Slaughtered by owners

...	...	...	...	1	
-----	-----	-----	-----	---	--

Bacteriological Examinations (Samples)	...	...	...	209
Submitted for Biological Tests (Samples)	...	...	...	111

*Tuberculosis Order, 1925.*

Compensation paid to owners	...	...	£125	3	10
Nett Salvage received for carcasses	...	...	£76	4	5

*Milk and Dairies Order, 1926.* There are 493 cowsheds within the city, and much improvement has been effected within recent years in their structure and equipment. The dairy cows have been kept in the majority of cases in a clean condition, though there is still an ill-founded reluctance on the part of farmers to make full use of the clipping machine on hairs of the flanks and udders of the cows.

## SUMMARY OF DEFECTS REMEDIED.

	1929	1930
Floors ... ..	35	79
Light and ventilation ... ..	23	55
Water supply ... ..	8	—
Drainage ... ..	5	14
Manure pits ... ..	3	3
Milk-rooms provided ... ..	39	62
Milk-rooms altered ... ..	—	19
General repairs ... ..	6	18
Rooms added for sterilization purposes	—	6

Total number of visits to farms in 1930, 1130.

*Milk Shops, Dairies and Purveyors of Milk.* There were at the end of the year 335 vendors of milk registered and residing within the city. These may be classified as follows :—

Cowkeepers and retailers ... ..	149
Retailers only (in street or from their homes) ... ..	156
Milkshops (including dairies, confectioners, small grocers and other shops) ... ..	30
Shops where milk is sold in sealed bottles only ... ..	636

The number of visits made to these premises was 1195, and generally the premises were found to be in a satisfactory state.

In addition to these 335 vendors residing within the city, 71 dairymen came into the city from surrounding districts to sell milk by retail.

The milk supply produced within the city is supplemented from 255 sources outside the boundary. From these sources the milk arrives in Bradford in 94 cases by rail, 1 by tramways, and 160 by road.

During the year 35 milk purveyors were registered, in addition to 143 shopkeepers who were registered to sell milk in sealed bottles only.

Fourteen persons have been granted a dealer's licence to sell Certified milk, and 45 to sell Grade " A " milk.

*Chemical Examination of Milk.* Nine hundred and ninety samples of milk were analysed, and the results are shown in tabulated form on the following page. These show that 3.74% of the samples gave an analysis under 3.0% of fat, and 69.39% over 3.5% of fat; whilst 1.01% of these samples gave an analysis under 8.5% of non-fatty solids.

## RESULTS OF MILK ANALYSIS, 1930.

Non-Fatty Solids	Fat																	Per Cent								
	Under 2.5	2.5	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	4.6 & over	Total	
Under 7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	Under 7.5
7.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.5
7.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.6
7.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.7
7.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.8
7.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.9
8.0	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	2	8.0
8.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.1
8.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.2
8.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.3
8.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.4
8.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.5
8.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.6
8.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.7
8.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.8
8.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.9
9.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.0
9.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.1
9.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.2
9.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.3
9.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.4
9.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.5
9.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.6
9.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.7
9.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.8
9.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9.9
10.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.0
Totals ...	6	6	4	2	10	9	33	36	39	80	78	77	81	77	73	72	56	42	52	41	23	21	72	990		

The total either below 3·0% of fat or 8·5% of non-fatty solids was 47, or 4·75% of the samples. In addition 6 separated milk samples were analysed, and these were all found to be genuine.

*Bacteriological Examination of Milk.* Reference to the Report of the City Bacteriologist will give the number of the samples examined and further details.

The 632 samples of milk submitted for bacterial counts were obtained from 480 sources of supply; in 260 cases the supply was from outside the city boundary, and in 220 cases inside. In 225 samples, or 35·6%, B. Coli was absent in 1 c.c.; in 519 samples, or 25·16%, B. Coli was absent in 0·1 c.c.; in 149 samples, or 23·58%, B. Coli was absent in 0·01 c.c.; in 57 samples, or 9·02%, B. Coli was absent in 0·001 c.c.; and in 42 samples, or 6·64%, B. Coli was present in 0·001 c.c.

*Municipal Milk Depot.* At the Municipal Milk Depot in 1930 61,947 gallons of milk were obtained from 4 sources, including 14,073 gallons of Grade "A" Tuberculin Tested milk, and 30,988 gallons of Grade "A" milk. The amount of milk sold was 60,652 gallons.

The institutions supplied with the milk were as follows:—

Hospitals and other Institutions under the Health						
Committee	...	...	...	...	...	5,389 gallons
Maternity and Child Welfare Scheme	...	...	...	...	...	46,122 gallons
Other Institutions and Persons	...	...	...	...	...	9,141 gallons
						Total
						60,652 gallons

### **(B) THE FOOD AND DRUGS ADULTERATION ACT 1928, AND THE PUBLIC HEALTH (PRESERVATIVES ETC, IN FOOD) REGULATIONS.**

The number of samples of food and drugs taken under these Acts and submitted to the Public Analyst for analysis by the sampling officer was 1,409. Of these 1,345 were certified as genuine, and 64 as adulterated or doubtful. In 7 adulteration cases proceedings were taken against the vendors. The total penalties and costs amounted to £10 10s. 0d.

The adulterations in the remaining cases were small, and the vendors were cautioned by letter.

TABLE SHOWING NUMBER OF SAMPLES PROCURED AND EXAMINED DURING 1930.

Nature of Sample	Number Submitted	Statutory Sample		Informal Sample	
		Genuine	Adult-erated	Genuine	Adult-erated
Baking Powder ... ..	7	—	—	7	—
Beer ... ..	7	2	—	4	1
Black Pudding ... ..	1	—	—	1	—
Bottled Fruit ... ..	1	—	—	1	—
Bottled Mussels ... ..	1	—	—	1	—
Butter ... ..	41	—	—	41	—
Candied Peel ... ..	1	—	—	1	—
Cheese ... ..	3	—	—	3	—
Cheese (Cream) ... ..	2	—	—	2	—
Cocoa ... ..	6	—	—	6	—
Coffee ... ..	10	—	—	10	—
Coffee with Chicory ... ..	2	—	—	2	—
Cream ... ..	9	5	—	4	—
Cream (Tinned) ... ..	1	—	—	—	1
Cornflour ... ..	4	—	—	4	—
Dried Fruit ... ..	12	1	1	9	1
Dried Peas ... ..	1	—	—	1	—
Dripping ... ..	1	—	—	1	—
Egg Substitute ... ..	1	—	—	1	—
Fish Cake ... ..	1	—	—	1	—
Flour ... ..	3	—	—	3	—
Ginger Wine ... ..	3	—	—	3	—
Golden Syrup ... ..	3	—	—	3	—
Grape Juice ... ..	1	—	—	1	—
Grilled Fish ... ..	1	—	—	1	—
Ground Almonds ... ..	3	—	—	3	—
Honey ... ..	7	—	—	7	—
Iodised Salt ... ..	3	—	1	1	1
Jam ... ..	13	1	1	10	1
Jelly ... ..	2	—	—	2	—
Lemon Cheese ... ..	1	—	—	1	—
Lemonade Powder ... ..	1	—	—	1	—
Lard ... ..	19	—	—	19	—
Margarine ... ..	38	—	—	38	—
Marmalade ... ..	1	—	—	1	—
Milk ... ..	996	411	22	539	24
Milk (Condensed) ... ..	7	—	—	7	—
Mineral Waters ... ..	6	—	—	6	—
Mustard ... ..	5	—	—	5	—
Oatmeal ... ..	3	—	—	3	—
Pepper ... ..	8	—	—	8	—
Pickles ... ..	4	1	—	3	—
Potted Meat ... ..	7	—	—	7	—
Potted Fish ... ..	2	—	—	2	—
Pudding (Currant) ... ..	1	—	—	1	—
Raisin Wine ... ..	2	1	—	1	—
Rice ... ..	7	—	—	7	—
Rum and Coffee ... ..	1	—	1	—	—
Sauce ... ..	1	—	—	1	—
Sausage ... ..	8	—	—	8	—
Self-raising Flour ... ..	1	—	—	1	—
Shredded Beef Suet ... ..	1	—	—	1	—
TOTALS (Carried forward) ..	1172	422	26	789	29

TABLE SHOWING NUMBER OF SAMPLES PROCURED AND EXAMINED DURING 1930.

Nature of Sample	Number Submitted	Statutory Sample		Informal Sample	
		Genuine	Adult-erated	Genuine	Adult-erated
TOTALS (Brought forward) ..	1172	422	26	789	29
Sugar ... ..	10	—	—	10	—
Sweets ... ..	13	—	—	13	—
Table Syrup ... ..	1	—	—	1	—
Tapioca ... ..	4	—	—	4	—
Tea ... ..	9	—	—	9	—
Tinned Fruit ... ..	4	—	—	4	—
Tinned Tomatoes ... ..	1	—	—	1	—
Vinegar ... ..	1	—	—	1	—
Vinegar (Malt) ... ..	4	1	—	3	—
Vinegar (White) ... ..	1	—	—	1	—
Ammoniated Tinct. of Quinine... ..	4	—	—	4	—
Amm. Tinct. of Quinine Tablets	2	—	1	—	1
Bicarbonate of Soda ... ..	1	—	—	1	—
Bismuth and Magnesia ... ..	1	—	—	1	—
Borax ... ..	1	—	—	1	—
Boric Acid ... ..	2	—	—	2	—
Boric Ointment ... ..	4	1	—	2	1
Camphorated Oil ... ..	2	—	—	2	—
Castor Oil ... ..	2	—	—	2	—
Compound Liquorice Powder ... ..	2	—	—	2	—
Cinnamon and Quinine (Conc.) ... ..	1	—	—	1	—
Citric Acid ... ..	3	—	—	3	—
Cod Liver Oil ... ..	1	—	—	1	—
Cod Liver Oil and Malt Extract	1	—	—	1	—
Cod Liver Oil Tablets ... ..	1	—	—	—	1
Cream of Tartar ... ..	4	—	—	4	—
Disinfectant ... ..	1	—	—	1	—
Flowers of Sulphur ... ..	1	—	—	1	—
Gelatine ... ..	1	—	—	1	—
Glycerine ... ..	5	—	—	5	—
Glycerine, Honey, and Lemon Juice ... ..	2	—	1	—	1
Gregory Powder ... ..	3	—	—	3	—
Ground Ginger ... ..	4	—	—	4	—
Light Calcined Magnesia ... ..	2	—	1	—	1
Milk of Sulphur ... ..	5	—	—	5	—
Olive Oil ... ..	6	—	—	6	—
Preservative ... ..	1	—	—	1	—
Seidlitz Powder ... ..	1	—	—	1	—
Soap Liniment ... ..	3	—	—	3	—
Spirits of Sal Volatile ... ..	3	—	—	3	—
Spirits of Nitre ... ..	3	2	—	—	1
Sulphur, Sarsaparilla, and Treacle ... ..	1	—	—	1	—
Tartaric Acid ... ..	5	—	—	5	—
Tincture of Iodine ... ..	3	—	—	3	—
White Precipitate Ointment	2	—	—	2	—
Zinc Ointment ... ..	4	—	—	4	—
Whytrine ... ..	1	1	—	—	—
Almond Oil ... ..	1	—	—	1	—
Totals ... ..	1,409	427	29	918	35

**(C) SLAUGHTERHOUSES AND MEAT INSPECTION.**

The number of private slaughterhouses within the city is 34, and 1 knacker's yard. Eight of these, and also the knacker's yard, are subject to annual license, and 26 are registered slaughterhouses. The number of visits made to private slaughterhouses was 1,610, and to butchers' shops and potted meat and sausage-makers' premises 3,185. There were no seizures of diseased or unsound meat during the year.

The number of carcasses condemned wholly or partly was 1,697. These were as follows :—

**CARCASES CONDEMNED WHOLLY OR PARTLY AND DESTROYED.**

	Wholly	Partly	Total
Cows ... ..	169	554	723
Bulls .. ..	..	10	10
Heifers ... ..	19	87	106
Bullocks ... ..	5	56	61
Sheep ... ..	75	30	105
Pigs ... ..	207	432	639
Calves ... ..	40	13	53
<b>Totals ... ..</b>	<b>515</b>	<b>1182</b>	<b>1697</b>

The total weight of meat in lbs. found unsound or unwholesome was as follows :—Beef, 101,366; Mutton, 5,202; Pork, 34,192; Veal, 2,280; Offals, 30,953; a total of 173,993 lbs., or upwards of 77 tons. In addition to which the following quantities of imported meat were destroyed : Chilled and Frozen Beef, 191 lbs.; Frozen Mutton, 42 lbs.

The total number of animals slaughtered at the Public Abattoirs was as follows :—

Beasts ... ..	17,460
Sheep ... ..	41,174
Lambs ... ..	3,200
Calves ... ..	5,739
Pigs ... ..	19,257
Total	86,830

Of these animals, 669 beasts and 402 pigs were found tuberculous, the extent and incidence of which is shown in the following table :—

	Beasts		Pigs	
	No.	Per-centage	No	Per-centage
Wholly destroyed ...	128	0·73	76	0·39
Partially destroyed ...	80	0·45	139	0·72
Internal organs only destroyed ... ..	461	2·64	187	0·97
Totals ... ..	669	3·82	402	2·08

The particulars as to the total number of animals slaughtered have been obtained from the Office of the Markets Superintendent.

#### (D) OTHER ARTICLES OF FOOD.

Daily inspections were made during the year in the St. James's Wholesale Market and the wholesale fish warehouses. In addition regular inspection of produce was made in the Rawson Place and Copsy Quarry Retail Markets. Eighty-two visits to fish curing and crab boiling premises were made by the Inspector. No cause for complaint was noted and the fish being treated was of good quality.

The following food stuffs were found to be unsound or unwholesome and were destroyed after surrender by the owners :—weights are in pounds; Rabbits 5,012; Wet Fish 2,362; Dry Fish 2,277; Shell Fish 11,911; Game and Poultry 192; Fruit 82,287; Vegetables 61,200; 86

tins of fruit; and 200 Dutch Eggs. This gives a total weight of 73 tons, as against 82 tons destroyed last year. The weight of fruit destroyed as compared with the previous year's figures (17,080 lbs.) is a serious loss to the growers, and indicates the necessity for regulating the supplies sent into the city. The greater part of this loss occurred in 3 or 4 weeks during the soft fruit season.

*Ice Cream.* Eight hundred and ten inspections of ice cream makers' premises and utensils were made. Whilst these were clean in the ordinary sense the results of the bacteriological examination of samples indicate a lack of appreciation of precautions in handling and storage essential to bacteriological cleanliness. The following table gives the results of the bacteriological examination of 84 samples submitted during the year.

ABSTRACT OF THE RESULTS OF THE BACTERIOLOGICAL EXAMINATION OF  
ICE CREAM.

Coliform Bacilli	Number of Samples	Colonies on Agar at 37° C. per 1 cc.						
		under 50,000	under 100,000	under 200,000	under 500,000	under 1,000,000	under 2,000,000	over 2,000,000
Absent in 1 cc. ...	27	19	3	—	1	2	1	1
Present in 1 cc. and absent in 0·1 cc. ...	20	12	3	—	—	1	2	2
Present in 0·1 cc. and absent in 0·01 cc. ...	10	3	1	2	1	1	1	1
Present in 0·01 cc. and absent in 0·001 cc. ...	8	2	—	1	2	2	—	1
Present in 0·001 cc. and absent in 0·0001 cc. ...	3	—	—	—	—	2	—	1
Present in 0·0001 cc.	16	—	1	—	2	4	—	9
Totals ...	84	35	8	3	6	12	4	15

*Fish Friers' Premises.* Visits to fish friers' premises during the year numbered 836. The premises and utensils were generally found to be in a satisfactory condition and the fish and dripping of good quality. Twelve applications for consent to establish the business of fish frier were considered by the Health Committee and two were granted. In one case, however, the business has not been established. Consent to

transfer existing businesses was granted in 34 cases. At the end of the year there were 295 businesses within the city, seven having been added by the inclusion of Clayton within the city area.

*Shell-fish, Watercress and Lettuce.* One hundred and fifty-seven samples of these commodities were submitted to the City Bacteriologist for examination. The results are indicated in the following table:—

Nature of Sample	Source of Supply	Result		
		Good	Bad	Doubtful
Mussels ...	Glasson Dock ...	1	—	—
" ...	Boston, Lincs ...	29	1	2
" ...	Mostyn ...	7	1	1
" ...	Heysham ...	3	—	—
" ...	Ulverston ...	10	1	—
" ...	Dalbeattie ...	2	—	1
" ...	Park Gate, Cheshire ...	6	1	2
" ...	King's Lynn ...	7	1	1
" ...	Killorglin (S.W. Ireland) ...	7	2	—
" ...	Southwick ...	4	—	—
" ...	Wirrall ...	—	1	—
" ...	Bagilt ...	1	—	—
Cockles ...	Flookburgh ...	11	—	—
" ...	Cark-in-Cartmel ...	10	—	—
" ...	King's Lynn ...	3	—	1
" ...	Park Gate, Cheshire ...	4	—	1
" ...	Barrow-in-Furness ...	2	—	—
" ...	Barra, N.B. ...	3	—	—
" ...	Mostyn ...	1	—	—
Oysters ...	Liverpool ...	1	—	—
Watercress ...	Abby Alford ...	4	—	—
" ...	Alresford ...	4	—	—
" ...	Dorset ...	2	—	—
" ...	Redburn ...	1	—	—
" ...	Warford ...	1	—	—
" ...	Pickering ...	2	—	—
" ...	Berkhamstead ...	1	—	—
" ...	Rickmansworth ...	1	—	—
Lettuce ...	Blackpool ...	3	—	—
" ...	France ...	5	—	—
" ...	Holland ...	4	—	—
	Totals ...	140	8	9

## IV.—PREVALENCE AND CONTROL OF DISEASE.

## (A) INFECTIOUS DISEASES.

The total deaths in Bradford from enteric fever, smallpox, measles, scarlet fever, whooping cough, diphtheria, and diarrhœa and enteritis under 2 years, known for convenience as Zymotic diseases, in 1930 was 128, giving a mortality rate for this group of 0·43 per 1,000.

## AVERAGE QUINQUENNIAL ZYMOTIC DEATH-RATES FROM 1886.

1886-90 ...	2·3	1906-10 ...	1·3	1926-30 ...	0·46
1981-95 ...	2·3	1911-15 ...	1·2		
1896-1900...	2·0	1916-20 ...	0·4		
1901-1905...	1·7	1921-25 ...	0·5		

The Zymotic death-rate for the first quarter was 0·71; for the second 0·46; for the third 0·29; and for the fourth 0·25.

The diseases to be notified in Bradford are smallpox, chicken pox, cholera, plague, diphtheria, membranous croup, erysipelas, scarlet fever, measles and German measles, whooping cough, ophthalmia neonatorum, infective enteritis, acute poliomyelitis, cerebro-spinal fever, tuberculosis, acute polio-encephalitis, encephalitis lethargica, pemphigus neonatorum, pneumonia and influenzal pneumonia, malaria, dysentery, and the fevers known by any of the following names, typhus, typhoid, enteric, relapsing, continued or puerperal.

*Diphtheria.* Cases, 354; Deaths, 21; Fatality, per cent., 5·9.

## MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	0·09	0·04	0·06	0·03	0·06	0·06	0·12	0·06	0·16	0·07
England and Wales	0·12	0·11	0·07	0·06	0·07	0·07	0·07	0·06	0·08	0·09

The number of cases of Diphtheria in 1930 was less than that for 1929, and the fatality rate was lower. The sickness rate per 1,000 was 1·18. The cases were fairly evenly distributed throughout the city, the greatest number occurring in the Great Horton Ward, where 37 cases were notified, and in the Bradford Moor, North and South Wards, where 35, 27 and 27 cases occurred respectively.

## CASES OF DIPHTHERIA MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	45	27	29	30	24	12	19	11	36	39	32	50

The greatest incidence of the disease fell on children over two years of age, and the highest death-rate on those under one year.

## CASES AND DEATHS ACCORDING TO AGE.

	Under 1 yr.	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	Over 20	Total
Cases ...	10	8	26	28	31	46	32	32	21	21	37	16	46	354
Deaths	2	1	—	3	1	5	1	—	2	2	1	—	3	21
Fatality per cent.	20.0	12.5	—	10.7	3.2	10.9	3.1	—	9.5	9.5	2.7	—	6.5	5.9

The number of cases removed to hospital was 301, or 85.0 per cent. of the cases.

Supplies of diphtheria anti-toxin for the use of practitioners in the city are kept at the Fever Hospital and at the Health Department. All patients admitted to the City Fever Hospital suffering from diphtheria receive a therapeutic dose of anti-toxin. The Schick test is not employed in the city.

*Enteric Fever.* Cases notified, 11; Death, 1; Fatality per cent., 9.1.

## MORTALITY RATES PER 1,000 IN PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ...	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
England and Wales	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

The monthly incidence of the disease is shown as follows:—

## CASES OF ENTERIC FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	—	1	—	1	—	—	1	2	3	1	—	2

The sickness rate in Bradford was 0·04 per 1,000 of the population.

The number of cases removed to hospital was 7.

*Scarlet Fever.* Cases, 1,282; Deaths, 18; Fatality per cent., 1·4.

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	0·04	0·09	0·02	0·01	0·02	—	0·01	0·04	0·05	1·40
England and Wales	0·03	0·04	0·03	0·02	0·03	0·02	0·01	0·01	0·02	0·02

The number of cases of Scarlet Fever notified in 1930 was 449 less than in 1929. The sickness rate per 1,000 was 4·29. The greatest number of cases occurred in the Great Horton and Bradford Moor Wards, where 119 cases were notified, and in Allerton, West Bowling and South Wards, where 104, 101 and 95 cases occurred respectively.

CASES OF SCARLET FEVER MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases...	221	133	103	97	71	69	98	72	102	119	90	107

The cases and deaths classified according to age are seen in the following Table :—

CASES AND DEATHS ACCORDING TO AGE.

	Under 1 year	1-5 years	5-15 years	15-25 years	25-45 years	45-65 years	Over 65 years	Total
Cases ... ..	9	324	767	107	71	4	—	1282
Deaths ... ..	1	7	7	—	2	1	—	18
Fatality per cent. ...	11·1	2·2	0·9	—	2·8	25·0	—	1·4

The number of cases removed to hospital was 1,062, or 82·9 per cent. of the cases. The Dick test is not employed in the city.

*Small-pox.* Fifteen cases of Small-pox occurred in the city in 1930.

The following Table gives the vaccination returns in Bradford since 1915.

VACCINATION STATISTICS.

Year	1 Births	2 Vaccinated	3 Insusceptible	4 Dead	5 Con. Objector	6 Post-poned	7 Removed	8 Un-accounted	Percent- age not Vaccinated including Columns 5, 6, 7, 8
1915	4,249	1,559	6	365	1,720	136	322	141	54·6
1916	4,028	1,337	6	355	1,767	103	278	182	57·7
1917	3,262	1,068	18	287	1,418	66	251	154	57·9
1918	3,221	885	7	288	1,367	92	310	272	63·4
1919	3,310	953	5	258	1,551	93	284	166	63·3
1920	5,208	1,363	9	370	2,609	109	444	304	66·6
1921	4,878	1,230	5	360	2,583	130	263	350	68·2
1922	4,415	1,231	6	277	2,413	91	231	166	65·7
1923	4,447	1,495	14	257	2,182	103	249	147	60·3
1924	4,172	1,336	14	274	1,855	129	376	188	61·1
1925	4,095	1,184	15	265	1,968	101	310	252	64·2
1926	3,892	1,325	32	271	1,727	76	244	108	55·9
1927	3,584	1,228	16	223	1,700	61	231	125	59·1
1928	3,707	1,147	12	208	1,930	32	243	135	63·1
*1929	4 419	1,119	35	233	2,599	67	240	202	69·1

\*The figures for that part of Bradford included in the old North Bierley Union are not available for those years prior to 1929.

*Diarrhœa.* Deaths, 39; Mortality per 1,000, 0·13.

The number of deaths from diarrhœa has now greatly diminished, and the rate continues low.

## DEATHS IN EACH WARD FROM DIARRHOEAL DISEASES IN 1930.

Ward	Certified as Infective			Not Certified as Infective			Total Deaths from Diarrhoeal Diseases		
	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total
Allerton ...	—	—	—	—	—	—	—	—	—
Bolton ...	—	—	—	—	—	—	—	—	—
Bradford Moor	—	—	—	1	2	3	1	2	3
Clayton ...	—	—	—	—	—	—	—	—	—
East ...	—	—	—	2	1	3	2	1	3
East Bowling	1	—	1	1	—	1	2	—	2
Eccleshill ...	—	—	—	1	1	2	1	1	2
Exchange ...	—	—	—	—	—	—	—	—	—
Great Horton	—	—	—	—	—	—	—	—	—
Heaton ...	—	—	—	1	—	1	1	—	1
Idle ...	—	—	—	1	—	1	1	—	1
Listerhills ...	1	—	1	1	—	1	2	—	2
Little Horton	—	—	—	3	1	4	3	1	4
Manningham	—	—	—	2	2	4	2	2	4
North ...	—	—	—	4	1	5	4	1	5
North Bierley East...	—	—	—	2	—	2	2	—	2
North Bierley West ...	—	—	—	—	1	1	—	1	1
South ...	—	—	—	6	1	7	6	1	7
Thornton ...	—	—	—	—	—	—	—	—	—
Tong ...	—	—	—	—	1	1	—	1	1
West ...	—	—	—	1	—	1	1	—	1
West Bowling	—	—	—	—	—	—	—	—	—
City ...	2	—	2	26	11	37	28	11	39

Twenty-three, or 59.0 per cent. of the total deaths, occurred under one year of age.

#### DEATHS AT VARIOUS AGE PERIODS.

Age Periods...	Months			Total under One Year	Years						
	0-3	3-6	6-12		0-1	1-2	2-5	5-15	15-25	25-45	45-65
Deaths ...	8	8	7	23	5	2	—	1	1	4	3

#### DEATHS OCCURRING MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Number of Deaths ...	4	3	3	4	—	3	2	4	5	6	3	2	39

The number of notifications of cases of zymotic enteritis received in 1930 was 20.

*Puerperal Fever and Puerperal Pyrexia.* Cases, 75; Deaths, 15; Fatality per cent., 20.0.

#### RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Cases ... ..	40	35	30	20	22	27	74	77	103	75
Deaths ... ..	15	13	9	4	4	10	12	10	7	15
Fatality per cent.	37.5	37.1	30.0	20.0	18.2	37.0	16.2	13.0	6.8	20.0
Number of live births to each death ... ..	380	402	588	1252	1207	471	360	442	621	291

*Measles and German Measles.* Cases notified, 3,023; Deaths, 12; Mortality per 1,000, 0.04.

*Whooping Cough.* Cases notified, 1,549; Deaths, 48; Mortality per 1,000, 0.16.

*Erysipelas.* Cases, 157; Deaths, 8; Fatality per cent., 5.1.

RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Cases ... ..	152	210	206	159	136	142	152	175	179	157
Deaths ... ..	3	12	23	6	9	10	15	9	17	8
Fatality per cent.	2.0	5.7	11.2	3.8	6.6	7.0	9.8	5.2	9.5	5.1

*Influenza.* Deaths, 34; Mortality rate per 1,000, 0.11.

RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths ... ..	56	141	113	159	96	43	152	48	268	34

*Anthrax.* Cases, 3; Death, 1; Fatality per cent., 33.3.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Cases ... ..	4	6	2	6	8	5	4	5	—	3
Deaths ... ..	1	0	1	2	0	0	0	1	—	1
Fatality per cent.	25.0	0.0	50.0	33.3	0.0	0.0	0.0	20.0	—	33.3

**(B) TUBERCULOSIS.**

The number of deaths from all forms of tuberculosis in 1930 was 265, giving a mortality rate of 0·89 per 1,000.

## RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths ... ..	339	297	297	311	284	292	292	288	292	265

## MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	1·16	1·02	1·02	1·05	0·98	1·01	1·00	1·00	1·01	0·89
England & Wales	1·13	1·12	1·03	1·06	1·04	0·96	0·97	0·93	0·96	—

The mortality from this cause is the lowest on record. During the past thirty years there has been a progressive reduction in the death-rate from all forms of tuberculosis; this is well seen in the following Table, which shows the average mortality rate per 1,000 for the five-yearly periods; 1901-1905 being 107 per cent. above that of last year.

AVERAGE MORTALITY RATE PER 1,000 FROM TUBERCULOSIS IN  
BRADFORD FOR PERIODS OF FIVE YEARS FROM 1901.

Periods ... ..	1901- 1905	1906- 1910	1911- 1915	1916- 1920	1921- 1925	1926- 1930
Pulmonary ... ..	1·31	1·19	1·19	1·16	0·84	0·81
Other Forms ... ..	0·53	0·46	0·34	0·30	0·21	0·17
All Forms ... ..	1·84	1·65	1·53	1·46	1·05	0·98

*Public Health Act, 1925, Section 62.* No action was taken under this section during the year.

## NEW CASES AND MORTALITY DURING 1930.

Age Periods	NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0 to 1 ... ..	—	—	—	—	—	—	—	1
1 to 5 ... ..	—	4	17	7	—	1	5	6
5 to 10 ... ..	9	5	33	21	1	—	2	5
10 to 15 ... ..	8	13	18	13	1	5	—	2
15 to 20 ... ..	16	24	15	2	6	10	—	3
20 to 25 ... ..	24	25	6	9	14	12	1	1
25 to 35 ... ..	43	36	6	6	18	21	3	4
35 to 45 ... ..	45	28	2	5	29	14	—	1
45 to 55 ... ..	39	10	5	4	41	8	2	2
55 to 65 ... ..	26	5	1	2	31	5	—	—
65 and upwards	8	3	1	2	4	5	1	—
Totals ... ..	218	153	104	71	145	81	14	25

Of the deaths occurring from all forms of tuberculosis in 1930 17 per cent. were not notified.

(A) *Pulmonary Tuberculosis*. Deaths, 226; Mortality rate per 1,000, 0.76.

## RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths ... ..	268	225	234	261	236	242	233	237	243	226

## MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	0.92	0.77	0.80	0.88	0.81	0.84	0.80	0.82	0.84	0.76
England & Wales	0.88	0.89	0.80	0.80	0.83	0.77	0.79	0.76	0.79	.

Considering the deaths in relation to sex the death-rate from pulmonary tuberculosis was in 1930 among males 1·06 per 1,000, and among females 0·51 per 1,000. The chart on page 51 shows the male and female death-rates from pulmonary tuberculosis for the past twenty-five years in Bradford and indicates that the divergence of rates in the two sexes since 1922—the rate among men tending on the whole to rise and that among women to fall. Within these twenty-five years the rates in the sexes were least different in 1913, 1918 and 1919, while the greatest differences occur in each of the past four years. The low rate among females since 1926 is to some extent characteristic of Bradford figures, and is at the moment a phenomenon rather difficult to account for.

Of the deaths occurring in 1930, 14 per cent. were not notified. The notifications received numbered 428, of which 371 were notified for the first time. This is an increase in primary notifications over the previous year.

(B) *Other Forms of Tuberculosis.* Deaths, 39; Mortality rate per 1,000, 0·13.

RECORD OF PREVIOUS YEARS.

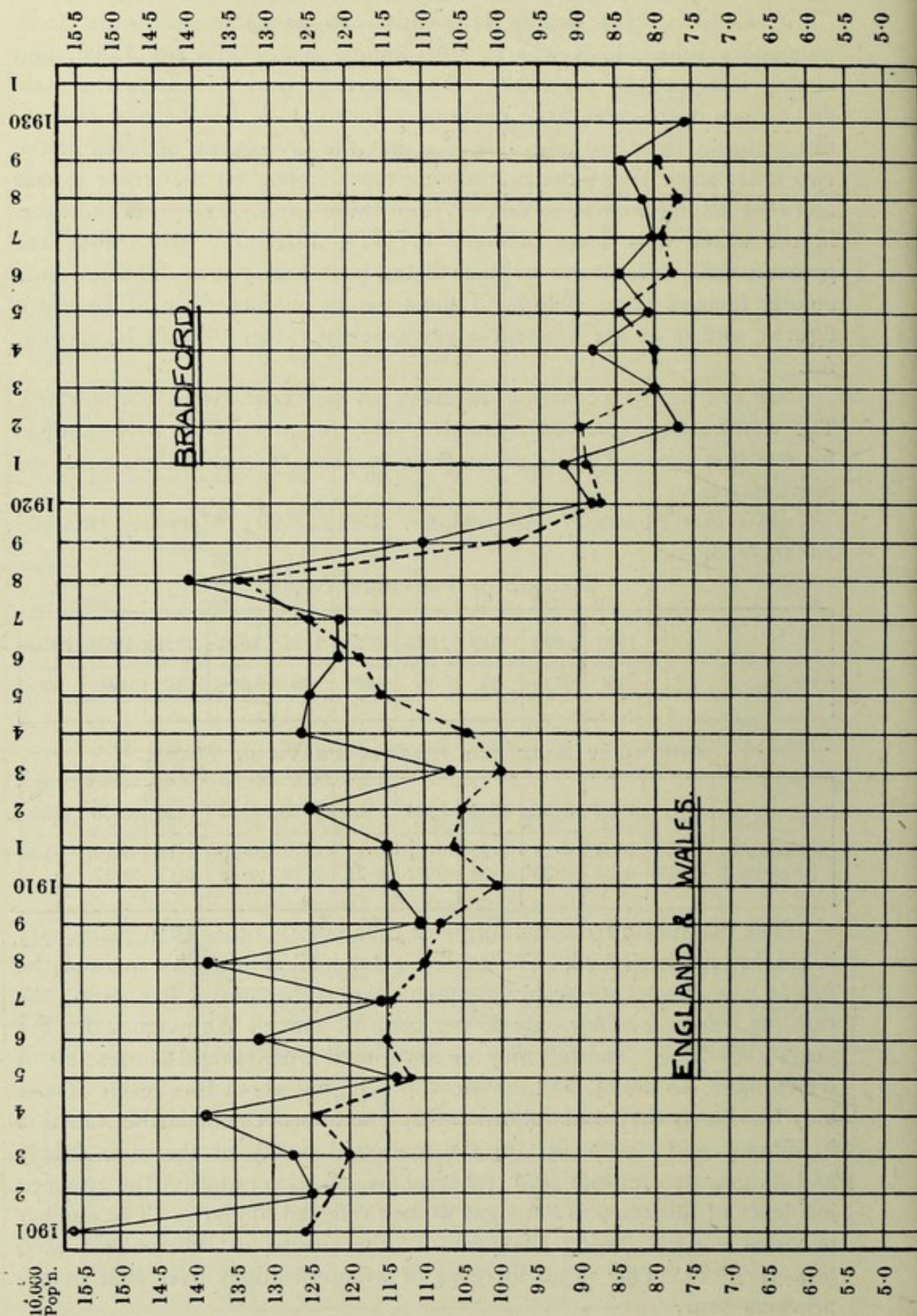
	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths ... ..	71	72	63	50	48	50	59	51	49	39

MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

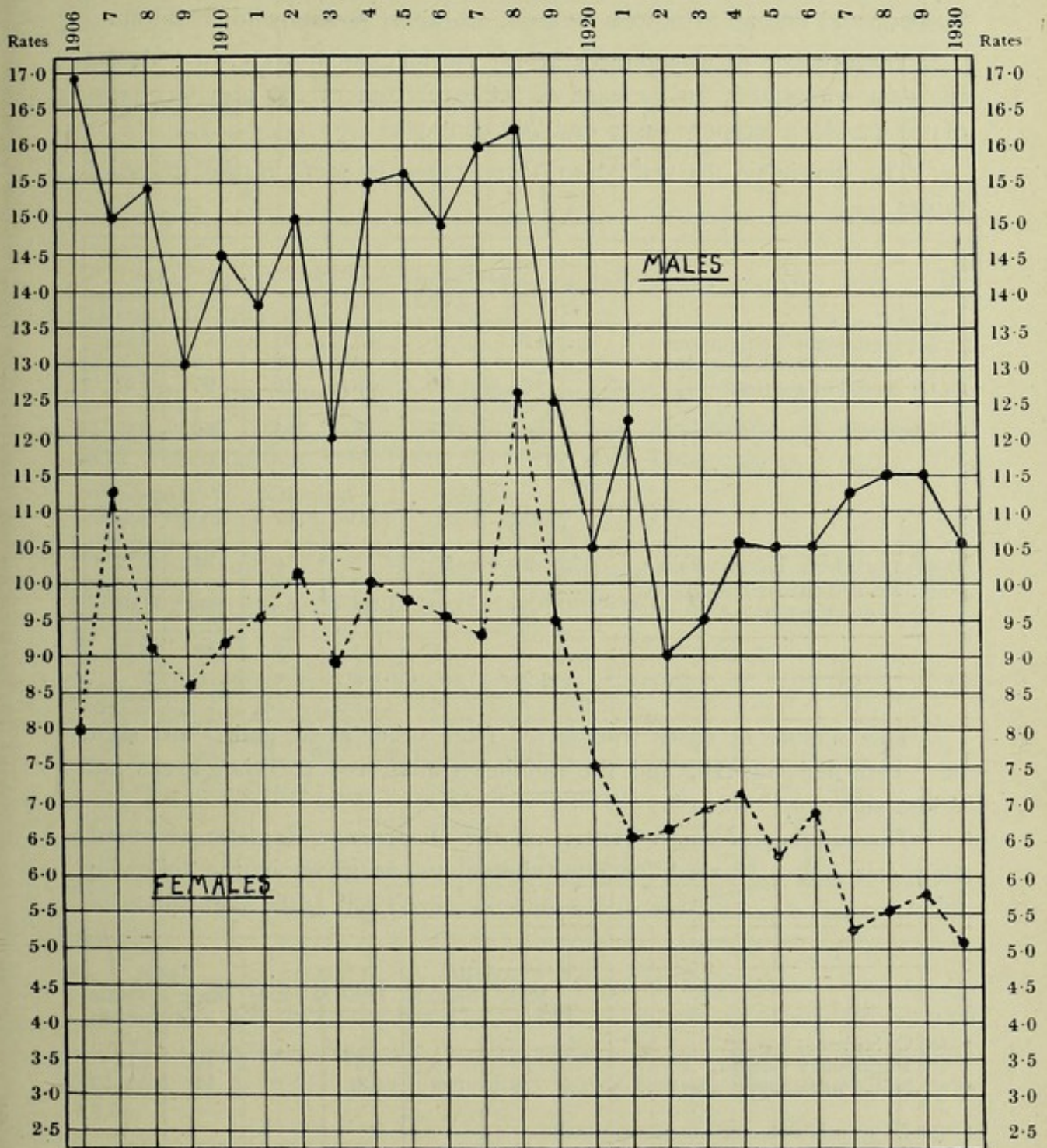
	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	0·24	0·25	0·22	0·17	0·17	0·17	0·20	0·18	0·17	0·13
England & Wales	0·25	0·23	0·23	0·22	0·21	0·19	0·18	0·17	0·17	.

The death-rate from the forms of tuberculosis other than pulmonary is the lowest on record. The table on page 47 shows how marked the fall in the death-rate from non-pulmonary tuberculosis has been, the rate for last year being only 25 per cent. of that of the average for the years 1901-1905. The fall may be associated with several causes, all of which have, no doubt, had an effect in bringing about this result. These may be shortly stated as follows :—(a) The improvement in the nutrition in infancy and childhood; (b) the increased purity of the milk supply and its greater freedom from tuberculous infection; and (c) the lessened incidence of tuberculosis amongst women referred to above. The number of cases notified during the year of other forms of tuberculosis was, however, 175. This is an increase of 27 notifications over that of the previous year.

DEATH-RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE  
POPULATION IN ENGLAND AND WALES AND BRADFORD, 1897-1930.



DEATH-RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE POPULATION IN BRADFORD ACCORDING TO SEX.



## ANTI-TUBERCULOSIS CENTRE.

Report by H. VALLOW, M.D., D.P.H., Tuberculosis Officer.

The Anti-tuberculosis Centre, or Tuberculosis Dispensary, is open for consultations on six sessions per week, one being a general evening session, and one an afternoon session, set apart specially for children.

The number of attendances at the Anti-Tuberculosis Centre during the year was 4,186, an increase of 508 over that of the previous year; of these, 441 were new cases and 269 contacts.

The diagnosis arrived at in these cases is seen in the following tables :—

	Adults		Children		Total	
	Male	Female	Male	Female	Male	Female
NEW CASES:—						
(a) Definitely Tuberculous... ..	116	92	37	31	153	123
(b) Doubtfully Tuberculous ... ..	4	3	6	3	10	6
(c) Non-Tuberculous ... ..	64	32	33	20	97	52
Total ... ..	184	127	76	54	260	181
CONTACTS:—						
	Adults	Children	Total			
	Male	Female	Male	Female	Male	Female
(a) Definitely Tuberculous... ..	21	27	13	10	34	37
(b) Doubtfully Tuberculous ... ..	—	4	2	—	2	4
(c) Non-Tuberculous ... ..	50	50	46	46	96	96
Total ... ..	71	81	61	56	132	137

The number of cases transferred from other areas and “lost sight of” returned was 19, and the number transferred to other areas and “lost sight of” was 85.

The number of cases written off the Dispensary Register as cured, diagnosis not confirmed, or non-tuberculous, is given in the following table :—

	Adults		Children		Total	
	Male	Female	Male	Female	Male	Female
(a) Cured:—						
Pulmonary Cases... ..	12	8	7	5	19	13
Non-Pulmonary Cases ... ..	8	5	6	6	14	11
(b) Diagnosis not confirmed or non-tuberculous ... ..						
Totals ... ..	140	101	94	80	234	181

The number of persons on the Dispensary Register on December 31st, 1930, is shown in the following table :—

	Pulmonary				Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
(a) Diagnosis completed	435	379	100	94	68	60	179	137	503	439	279	231
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	3	3	8	3

The health visitors have paid 4,543 visits to the homes for Dispensary purposes.

The Tuberculosis Officer visited the homes of 175 cases, 90 of these visits being made along with the medical practitioner in attendance. 850 consultations took place at the Anti-Tuberculosis Centre with medical practitioners.

The number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision was 2,668.

The number of attendances at General Hospitals, or other Institutions approved for the purpose, of patients for

(a) " Light " treatment was ... ..	2,124
(b) Other special forms of treatment ... ..	361

The number of patients to whom Dental Treatment was given at, or in connection with, the Dispensary was 245.

The number of persons on the Dispensary Register on January 1st was 1,378, and on December 31st, 1,469. The number of insured persons on the Dispensary Register on December 31st was 766, and the number of insured persons under domiciliary treatment on December 31st was 118.

The number of reports received during the year in respect of insured persons on Form G.P. 36 was 217.

*Residential Treatment.*

Patients have been sent to the Sanatoria and Hospitals as required, and the following return shows the extent of this residential treatment. Institutions:—Grassington Sanatorium, Bierley Hall Hospital, and St. Luke's Hospital (Tuberculosis Section).

Number of Patients			In Institutions on Jan. 1	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
			M.	89	313	247	68
	F.	53	191	148	31	65	
	M.	23	76	74	—	25	
	F.	21	54	51	3	21	
Number of Observation Cases	Adults	M.	4	21	23	—	2
		F.	12	17	21	—	8
	Child- ren	M.	3	10	8	—	5
		F.	5	12	12	—	5
Total ...		210	694	584	102	218	

The following table shows the immediate results of treatment of patients and observation of doubtful cases discharged from Residential Institutions during the year 1930.

Classification on admission to the Institution	Condition at Time of Discharge	Duration of Residential Treatment in the Institution												Total	
		Under 3 months			3-6 months			6-12 months			More than 12 months				
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
Pulmonary Tuberculosis	Class T.B. Minus	Quiescent ... ..	1	—	—	4	4	—	—	2	—	—	—	—	11
		Improved ... ..	5	8	—	3	2	—	4	7	3	2	5	—	39
		No Material Improvement	4	5	—	1	—	—	2	—	—	—	—	—	12
		Died in Institution ...	1	1	—	—	—	—	1	—	—	—	—	—	3
	Class T.B. plus Group 1	Quiescent ... ..	—	—	—	—	—	—	1	1	—	—	—	—	2
		Improved ... ..	2	—	—	2	1	1	2	—	—	1	—	—	9
		No Material Improvement	—	2	—	—	—	—	—	—	—	—	—	—	2
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 2	Quiescent ... ..	—	—	—	2	—	—	2	1	—	—	1	—	6
		Improved ... ..	29	11	2	14	4	—	10	4	—	5	3	—	82
		No Material Improvement	8	3	—	5	1	—	2	2	—	3	1	—	25
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. plus Group 3	Quiescent ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved ... ..	29	10	4	10	4	1	6	2	—	1	1	1	69	
	No Material Improvement	44	19	7	7	5	2	3	1	—	1	—	—	89	
	Died in Institution ...	53	21	2	7	5	—	3	3	—	1	1	—	96	
Non-Pulmonary Tuberculosis	Bones and Joints	Quiescent or Arrested ...	—	—	—	—	—	—	1	1	1	2	2	—	7
		Improved ... ..	5	6	5	1	—	4	—	2	—	—	1	—	24
		No Material Improvement	3	2	4	—	—	1	—	—	—	—	1	—	11
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—
	Abdominal	Quiescent or Arrested ...	—	—	—	—	—	—	—	—	—	—	—	—	—
		Improved ... ..	—	3	5	—	—	—	—	—	—	—	—	—	8
		No Material Improvement	—	—	2	—	—	—	—	—	—	—	—	—	2
		Died in Institution ...	—	—	1	—	—	—	—	—	—	—	—	—	1
	Other Organs	Quiescent or Arrested ...	—	1	—	—	1	—	2	1	—	—	—	3	8
		Improved ... ..	5	7	3	2	7	8	1	1	3	—	1	2	40
		No Material Improvement	4	2	1	—	—	—	—	—	—	—	—	—	7
		Died in Institution ...	2	—	—	—	—	—	—	—	—	—	—	—	2
Periph-eral Glands	Quiescent or Arrested ...	—	—	—	3	—	4	—	—	7	—	1	3	18	
	Improved ... ..	3	1	18	—	—	11	—	—	12	—	—	1	46	
	No Material Improvement	—	—	3	—	—	—	—	—	—	—	—	—	3	
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	
Observation for purpose of Diagnosis															
	Tuberculous ... ..	—	—	—	1	—	1	—	—	1	8	15	12	38	
	Non-Tuberculous ... ..	—	—	—	2	—	—	7	1	1	2	3	4	20	
Doubtful ... ..	—	1	—	—	—	1	1	—	—	2	1	—	6		

## GRASSINGTON SANATORIUM.

W. M. CUMMING, M.D., Ph.D., D.P.H., MEDICAL SUPERINTENDENT.

The beds are used for those cases of pulmonary and non-pulmonary forms of Tuberculosis in which there is reasonable prospect of cure or considerable improvement.

## ADMISSIONS AND DISCHARGES, 1930.

	Adults		Children		Total	
	M.	F.	M.	F.	M.	F.
Remaining 31/12/29 ... ..	49	44	19	20	68	64
Admitted ... ..	97	65	44	39	141	104
Discharged ... ..	100	63	39	40	139	103
Died ... ..	3	3	—	—	3	3
Remaining 31/12/30 ... ..	43	43	24	19	67	62

Of the adult cases discharged, 12 men and 1 woman stayed under one month. The reasons for this short stay were: 5 men and 1 woman took their discharge against medical advice, 3 men (non-tuberculous) were certified fit for work, 3 men were transferred to St. Luke's Hospital for surgical and special treatment, and 1 man returned home for personal reasons. Amongst the adult males 66 had well-established pulmonary tuberculosis, the tubercle bacillus being found in 52, but not 14, and 16 had other forms of tubercle; among the adult females 42 had well-established pulmonary tuberculosis, the tubercle bacillus being found in 19, but not in 23, while 18 had other forms of tubercle. Amongst the children, 12 boys and 10 girls had intrathoracic tubercle.

*Pulmonary Tuberculosis.*

## GAIN IN WEIGHT.

	Adults				Children	
	M.		F.		M.	F.
	T.B. +	T.B. -	T.B. +	T.B. -		
Average stay in days ...	239	265	339	236	205	218
Average age ...	35	31	30	31	8	8
Average gain in weight	$8\frac{9}{17}$	$8\frac{8}{18}$	$10\frac{1}{12}$	$8\frac{1}{18}$	$7\frac{5}{16}$	$6\frac{1}{18}$

Of the male adults, 50 gained weight, 7 lost weight, 7 were too ill to be weighed, and 2 died. Of the female adults, 30 gained weight, 4 lost weight, 5 were too ill to be weighed, and 3 died.

All the children gained in weight.

The capacity for work of the cases of pulmonary tuberculosis discharged in 1930 is shown below :—

	T.B. +		T.B. -		Total	
	M.	F.	M.	F.	M.	F.
Full Work ...	22	4	8	13	30	17
Light Work ...	8	3	2	5	10	8
Fit for Exercise ...	5	3	1	3	6	6
Unfit for Work ...	15	6	3	2	18	8
	50	16	14	23	64	39
Died in Institution ...	2	3	—	—	2	3

*Other forms of Tuberculosis.*

	Male.	Female.
Average stay in days ...	242	217
Average age ...	21	24
Average gain in weight ...	$8\frac{3}{16}$	$9\frac{14}{16}$

Thirteen men and 17 women gained weight, and 1 woman lost weight.

In all, 545 sputum examinations were made, 224 by the ordinary direct method, and 321 after concentration. In 13 instances tubercle bacilli were demonstrated in the sputum after concentration when results had been negative with the direct method. During 1930 the dentist visited the Sanatorium periodically, and extracted 190 teeth, filled 38 teeth, scaled 11 teeth, made 2 dentures, and carried out various minor operations.

The results of treatment of the children are shown on the following table :—

Result of Treatment of Children	Quiescent		Improved		No Material Improvement		Died		Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
(1) Intrathoracic Tubercle ...	5	1	7	9	—	—	—	—	12	10
(2) Other Forms...	6	6	17	17	—	3	—	—	23	26
(3) Suspected Cases	—	—	2	1	—	1	—	—	2	2
Totals ...	11	7	26	27	—	4	—	—	37	38

All children who are fit were recommended on discharge to go to the Open-Air School.

The table showing results of treatment in adults is given on the following page, and from this table it is clear that the great majority in all the A. sub-classes and I.B and II.B are likely to improve with sanatorium treatment. Of the cases in III.B, about 67 per cent. of them will benefit, but very few cases in any of the C. sub-classes are likely to improve.

TABLE SHOWING RESULT OF TREATMENT.

Stage	Cases with T.B. in Sputum						Cases with T.B. Absent						Total								
	Quiescent		Improved		No Material Improvement		Died		Total		Quiescent		Improved		No Material Improvement		Died		Total		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
I A.	1	4	—	—	5	1	5	4	6	5	—	11	9	6	5	10	5	—	—	16	10
II A.	3	12	1	—	15	3	2	8	—	10	3	4	12	9	—	—	—	—	—	15	13
III A.	—	13	6	—	13	6	—	1	—	1	—	—	—	13	7	—	—	—	—	13	7
I B.	—	—	1	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
II B.	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
III B.	—	—	5	1	9	1	—	1	1	—	—	—	—	6	2	4	—	—	—	10	2
I C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
III C.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	4	33	8	10	52	19	5	6	8	15	1	2	14	23	9	44	23	11	7	66	42

NOTE ON CLASSIFICATION.—Pulmonary Tuberculosis cases in Adults are sub-divided into two classes:—(1) Tubercle Bacilli present in the sputum; (2) Tubercle Bacilli absent. Each of these classes is further sub-divided according to the extent of the lesion in the lung and the severity of the symptoms. For the extent of the lesion a modified Turban-Gerhardt system is used, Stage 1 being a localised lesion involving if both lungs, not more than the extent of the lung above the clavicle in front, and above the spine of the scapula behind; whilst if only one lung is affected, a lesion extending not lower than the second rib in front and the spine of the scapula behind is indicated. Stage 2 indicates a slight lesion up to one lobe, or a severe lesion of half a lobe. Stage 3 includes all other cases. The letters A., B. and C. are used to denote severity of symptoms in each case. A denotes constitutional disturbance absent or slight; B, intermediate between A and C; C, severe constitutional disturbance or deterioration. Constitutional disturbance is in each case estimated by degree of pyrexia, tachycardia, dyspnoea, malnutrition.

## BIERLEY HALL HOSPITAL.

	Men.	Women.	Total.
Admissions ... ..	78	73	151
Discharges ... ..	53	60	113
Deaths ... ..	20	13	33
No. of patient days ... ..	8,319	7,881	16,200
Average No. of beds occupied...	23.2	21.4	44.6
Pulmonary cases ... ..	...	...	146
Non-Pulmonary cases ... ..	...	...	2
Observation cases ... ..	...	...	3

Of the cases discharged, 27 men and 41 women showed some improvement in their condition. Although the number of admissions were higher than the previous year, the average stay in hospital was much shorter, especially amongst the women; the average number of beds occupied and the total number of the patient days was considerably less.

Of the cases discharged during the year, 8 men and 12 women were in Stage I. of the disease, 6 men and 21 women in Stage II., 36 men and 23 women in Stage III., while 3 men and 4 women were observation cases. There were 2 women non-pulmonary cases, 1 suffering from tuberculosis of the vertebra and 1 from tuberculosis of the peritoneum. There were 68 cases discharged improved, 27 men and 41 women.

**(C). VENEREAL DISEASES.**

The Centre at the Municipal General Hospital is well equipped, and conveniently situated so as to serve the whole area. In the Municipal General Hospital itself beds are provided for indoor treatment of venereal disease in its various forms, and the provision made is adequate.

The number of new cases from the area of the City of Bradford and the attendances at the Venereal Diseases Centre since its opening are shown in the following table :—

Year	Venereal Diseases		Non-Venereal Diseases		Attendances	
	Male	Females	Males	Females	Males	Females
1918 ... ..	200	175	34	41	1,604	1,639
1919 ... ..	583	235	79	42	10,990	4,011
1920 ... ..	627	311	121	31	21,129	9,174
1921 ... ..	457	184	144	29	28,676	11,390
1922 ... ..	403	164	126	31	23,162	7,863
1923 ... ..	359	134	110	44	21,398	7,565
1924 ... ..	315	123	103	50	17,390	5,615
1925 ... ..	248	142	143	42	13,294	4,859
1926 ... ..	374	119	43	29	20,095	4,957
1927 ... ..	312	115	99	53	20,116	5,369
1928 ... ..	344	122	141	83	20,972	5,253
1929 ... ..	308	145	156	116	17,955	4,654
1930 ... ..	311	145	165	110	19,215	6,230

	Males	Females
1. Number of persons dealt with at the Out-patient Clinic for the first time and found to be:—		
Suffering from Syphilis ... ..	71	87
Suffering from Gonorrhœa ... ..	241	58
Not suffering from Venereal Disease ... ..	165	110
(1 male and 2 females, double infection) Total ... ..	477	255
2. Number of persons discharged from the Out-patient Clinic after completion of treatment for:—		
Syphilis ... ..	20	22
Gonorrhœa ... ..	156	36
Total ... ..	176	58
3. Number of persons who ceased to attend the Out-patient Clinic without completing treatment and who were suffering from:—		
Syphilis ... ..	49	68
Gonorrhœa ... ..	42	15
(1 male and 0 females, double infection) Total ... ..	91	83
4. Total attendances of all persons at the Out-patient Clinic who were:—		
Suffering from Syphilis ... ..	2,652	2,744
Suffering from Gonorrhœa ... ..	15,038	2,799
Not found to be suffering from Venereal Disease ... ..	1,525	687
Total ... ..	19,215	6,230
5. Aggregate number of "In-patient days" of treatment given to persons suffering from:—		
Syphilis ... ..	214	759
Gonorrhœa ... ..	336	484
Not suffering from Venereal Disease ... ..	39	—
Total ... ..	589	1,243
6. Number of persons treated with Salvarsan Substitutes ... ..	142	134

## 7. Number of doses of Salvarsan Substitutes given:—

Dose	Norvarsenobillon	Silber Salvarsan	Sulpharsenol	Number of Doses
·05 grm.	77	—	—	77
·10 "	63	6	—	69
·12 "	—	—	10	10
·15 "	278	65	—	343
·18 "	—	—	6	6
·20 "	—	77	—	77
·24 "	—	—	6	6
·30 "	500	20	4	524
·36 "	—	—	5	5
·42 "	—	—	8	8
·45 "	1,044	—	—	1,044
·48 "	—	—	30	30
·60 "	707	—	6	713
Total ...	2,669	168	75	2,912

## 8. Examinations of Pathological Material:—

Specimens from persons attending at the Treatment Centre which were examined at the Municipal Laboratory:—

	Number
For detection of Spirochaetes ... ..	24
For detection of Gonococci ... ..	1,144
For Wassermann reaction... ..	751

Total ... .. 1,919

## Authorities responsible for patients:—

Area	New Cases	Number of Attendances at Out-patient Clinic	Aggregate number of In-patient Days	No. of doses of Salvarsan Substitutes used in Treatment Centre
Bradford ...	732	25,445	1,832	2,912
West Riding ...	102	3,900	208	432
Total ... ..	834	29,345	2,040	3,344

Number of out-patients remaining under treatment :—

	Bradford.	West Riding Area.
Male ... ..	331	59
Female ... ..	280	40
	<hr/>	<hr/>
Total	610	99
	<hr/>	<hr/>

Number of persons receiving in-patient treatment :—

Male ... ..	26	1
Female ... ..	35	4
	<hr/>	<hr/>
Total	61	5
	<hr/>	<hr/>

Pathological Examinations made in the Laboratory during the twelve months ending on the 31st December, 1930 :—

Nature of Test	For Treatment Centre	For Practitioners
	No. of Tests	No. of Tests
For detection of Spirochaetes	37	5
For detection of Gonococci	1589	688
For Wassermann reaction...	939	2925
Other examinations ...	—	22
Totals ... ..	2565	3640

The number of doses of salvarsan supplied free to medical practitioners in Bradford by the Local Authority during 1930 was 437.

The following tables showing figures for the past four years seem to show that the prevalence of venereal disease is somewhat diminishing.

#### NUMBERS.

	1927	1928	1929	1930
Ophthalmia neonatorum cases notified ...	47	35	34	40
Congenital syphilis deaths registered ...	3	3	6	2
Still Birth cases notified ... ..	195	200	183	195

## PROPORTIONS PER 1,000 BIRTHS.

	1927	1928	1929	1930
Ophthalmia neonatorum cases notified ...	10.9	7.9	7.8	9.1
Congenital syphilis deaths registered ...	0.69	0.68	1.38	0.46
Still Birth cases notified ... ..	45.2	45.2	42.1	44.6
Illegitimate Births registered ... ..	59.1	54.3	50.6	59.2

**(D) OTHER DISEASES.**

*Malignant Diseases.* Deaths 480; Mortality rate per 1,000, 1.61.

## RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths ... ..	397	411	374	444	406	458	450	440	445	480

## MORTALITY RATES PER 1,000 FROM MALIGNANT DISEASES SINCE 1921.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	1.36	1.41	1.29	1.50	1.40	1.59	1.53	1.52	1.54	1.61
England and Wales	1.21	1.23	1.41	1.30	1.34	1.36	1.38	1.42	1.44	—

As will be seen in the following tables, malignant disease shows an increase both in the male and female sex.

## MALIGNANT DISEASE IN BRADFORD ACCORDING TO SEX AND SITE.

## CRUDE ANNUAL DEATH RATES PER 1,000

Situation of Disease	1929			1930		
	Males	Females	Persons	Males	Females	Persons
Buccal Cavity ... ..	0.18	0.04	0.11	0.20	0.01	0.10
Pharynx, œsophagus, stomach, liver and annexa	0.56	0.37	0.46	0.55	0.36	0.45
Peritoneum, intestines, and rectum ... ..	0.32	0.25	0.28	0.43	0.44	0.44
Female genital organs ...	—	0.36	0.36	—	0.31	0.31
Breast ... ..	—	0.36	0.36	—	0.30	0.30
Skin ... ..	0.03	0.01	0.02	0.03	0.03	0.03
Other or unspecified organs	0.42	0.18	0.30	0.34	0.20	0.26
Total ... ..	1.51	1.57	1.54	1.55	1.66	1.61

The table on page 67 gives the number of deaths at different age periods in Bradford during the past four years according to the situation of the disease, and sex. This table shows that a very large majority of deaths from malignant disease now arises from affections of one or other of four sites—œsophagus and stomach, 419; rectum and colon, 364; uterus, 189; and breast, 186. It is, therefore, seen that by far the greatest number of deaths in the city from cancer occur from malignant disease affecting some part of the alimentary tract.

The table on page 66 gives the deaths for 1930 according to occupation, while the following table shows the deaths among occupied males during the past five years 1926-1930.

### CANCER AND OCCUPATION.

#### DEATHS, 1926-1930—OCCUPIED MALES.

Occupation	Approximate number employed	Buccal Cavity	Stomach, Liver, etc.	Peritoneum, Intestines, and Rectum	Skin	Others	Total
Combing ... ..	3,500	8	30	11	2	15	66
Dyeing ... ..	4,500	7	30	16	2	13	68
Other Textiles ...	15,000	16	70	40	6	53	185
Engineering ...	10,000	16	51	28	4	24	123
Transport Workers	9,500	10	25	13	2	15	65
Building Trades ...	8,000	13	32	28	—	22	95
Commercial Workers ...	10,000	17	44	29	4	31	125
Clerical Workers...	4,500	3	19	21	2	15	60
Other occupations	30,000	23	76	34	5	64	202

This table seems to show an increased incidence among combers and dyers, but this conclusion can only be accepted with reservation, as the numbers are small and the estimate of those employed loose, while no correction is made for age differences. The higher incidence is not seen in any particular location of the disease.

In 1930 there were 101 deaths from malignant disease in the Municipal General Hospital, St. Luke's; 27 in the Bradford Royal Infirmary; and 11 in other institutions in Bradford. Although only 30% of the cases died in hospital, the proportion of cases of malignant disease which in the course of their illness are treated in hospital is very large.

CANCER—OCCUPATION AND SITE.

DEATHS, 1930.

MALES		FEMALES										
Occupation	Buccal Cavity	Stomach, Liver, etc.	Peritoneum, Intestines and Rectum	Skin	Others	Occupation	Breast		Genital Organs		Alimentary	Others
							Mar- ried	Un- marri'd	Mar- ried	Un- marri'd		
Woolcombing ... ..	2	11	2	—	5	Woolcombing ...	—	—	—	—	—	—
Dyeing ... ..	3	5	2	—	2	Spinning ...	—	2	—	1	3	—
Other Textiles ... ..	6	14	9	—	11	Weaving ...	—	1	—	—	2	—
Engineering ... ..	3	7	10	2	4	Other Textiles ...	—	2	—	1	3	—
Transport Workers... ..	4	6	4	—	3	Commercial ...	—	—	—	—	2	—
Building Trades ... ..	3	3	7	—	3	Clerical ...	—	—	—	—	4	1
Commercial ... ..	2	12	11	—	5	Domestic ...	41	2	48	3	115	37
Clerical ... ..	—	5	5	1	4							
Other Occupations ... ..	4	13	7	2	10							
Total ... ..	27	76	57	5	47	Total ...	41	7	48	5	129	38



*Cancer Investigation in Bradford.*—Much attention is paid to this subject in the city and records are accumulating as to the incidence, prognosis and effects of treatment which will throw some light on the position. The work has been done in close co-operation with the medical profession in practice, to whose active interest and sympathy its success is almost entirely due. A medical committee on Cancer was formed in 1925, locally representative of the various branches of the profession, and with their help a system of notification, investigation and following up of cases and suspected cases was inaugurated and considerable propaganda work undertaken.

Briefly put, the cancer scheme in Bradford aims at:—

- (a) Continued observation of patients after operation.
- (b) Continued observation of suspected cancerous conditions.
- (c) Collection of data respecting the treatment of cancer.
- (d) Educational effects on the public and Medical Profession.

Malignant disease, including suspected cases, is voluntarily notifiable, and practitioners are urged to notify all cases coming under their care. In a disease of this description considerable hesitation and difficulty is naturally felt by the practitioners in notifying, but there has been a gradual increase in the number of cases notified, last year 228 cases being reported as against 187 in 1929. In addition also the cases admitted to the hospitals and some nursing homes are reported, this giving information of a further 198 cases, so that in all 426 cases were brought under observation for the first time in 1930 as against 403 in 1929. The following table gives a short statement of how the cases were being dealt with.

## CANCER CASES REPORTED IN 1929-1930.

	1929		1930	
New cases notified by Practitioners .. .. .	187		228	
	M.	F.	M.	F.
	70	117	105	123
Number of newly notified cases referred for Hospital Treatment .. .. .	73		130	
Approximate number of Cancer Patients resident in the Bradford City Area admitted to Hospitals or Nursing Homes during the year..	289		328	
	M.	F.	M.	F.
Of these:—	113	167	126	202
(a) Cases considered to be unsuitable for active Operative, Deep X-Ray, or Radium Treatment .. .. .	6		17	
(b) Cases operated on—				
Radical Operation .. .. .	52		54	
Non-Radical Operation (e.g. Colostomy, etc.) .. .. .	66		69	
Totals .. .. .	118		123	
(c) Cases treated by Deep X-Ray Therapy—				
Primary X-Ray Therapy .. .. .	26		29	
Post Operative X-Ray Therapy .. .. .	28		5	
Totals .. .. .	54		34	
Radium Treatment .. .. .	102		154	
	M.	F.	M.	F.
	42	60	55	99
Pathological Verification .. .. .	102		110	
Number of cases not Pathologically verified .. .. .	178		218	

Patients who have received either Operative, Radium, or Deep X-Ray Therapy Treatment are invited to attend periodically for re-examination. These re-examinations and consultations are arranged by the cancer investigation officer in co-operation with the medical practitioner in attendance, and they are carried out by the consulting surgeons or other specialists concerned at times fixed by them. These gentlemen have shown great interest in the work and have undertaken it quite voluntarily.

A short summary of the results of the follow-up of cases during 1930 who had undergone radical, non-radical or radium treatment for their condition is given below.

It is impossible, without going into great detail, to summarise completely the results of the modern methods of treatment, but from what

is stated it will be seen that the results are hopeful and especially hopeful when the cases come under treatment early in the disease. Cancer indeed, is a curable disease, only becoming incurable when proper measures for its treatment are delayed.

#### *Radical Operations.*

During the year, 78 cases of cancer who had undergone radical operation at some period during the past five years were examined and reported upon as follows :—

No sign of recurrence with good general health ... ..	67
No sign of recurrence with impaired general health ... ..	5
Recurrence with good general health ... ..	2
Recurrence with bad general health ... ..	4

#### *Non-Radical Operation.*

Twenty-three cases of cancer who had undergone non-radical operation (i.e., Colostomy, etc.) during the past four years were examined with the following results :—

No sign of recurrence with good general health ... ..	15
No sign of recurrence with impaired general health ... ..	6
Recurrence with good general health ... ..	—
Recurrence with bad general health ... ..	2

#### *Radium Treatment.*

One hundred and twenty-five cases who had undergone radium treatment during the past two years were examined and reported upon as follows :—

No sign of recurrence with good general health ... ..	87
No sign of recurrence with impaired general health ... ..	24
Recurrence with good general health ... ..	4
Recurrence with bad general health ... ..	10

Of the patients on the " follow-up " list on January 1st, 1930, who had undergone treatment either by Surgical Operation, Deep X-Ray Therapy or Radium Therapy, 42 are known to have died.

In 41 of these cases death was certified as having been due to malignant disease. In one case death was certified to have been caused by diabetes mellitus.

The following information regarding these fatal cases is given.

Case No.	Site of Primary Growth	Date of Death	Duration of life from date of notification or admission to hospital
I.15 .. ..	Mouth .. ..	30/3/30	11 months
G.26 .. ..	Mouth .. ..	19/9/30	19 months
R.23 .. ..	Rectum .. ..	28/4/30	11 months
S.5 .. ..	Uterus .. ..	28/7/30	2 years 9 months
P.1 .. ..	Breast .. ..	6/7/30	2 years 9 months
H.2 .. ..	Breast .. ..	18/4/30	2 years 9 months
O.4 .. ..	Breast .. ..	22/4/30	1 year 10 months
W.33 .. ..	Breast .. ..	19/6/30	1 year 11 months
W.56 .. ..	Breast .. ..	11/1/30	1 year 3 months
M.54 .. ..	Breast .. ..	7/6/30	1 year
B.40 .. ..	R.I. Region ..	12/6/30	2 years
B.12 .. ..	Colon .. ..	18/11/30	2 years 10 months
B.9 .. ..	Rectum .. ..	10/9/30	3 years
F.15 .. ..	Rectum .. ..	27/9/30	2 years 5 months
B.81 .. ..	Tongue .. ..	12/5/30	11 months
W.87 .. ..	Tongue .. ..	29/7/30	8 months
B.85 .. ..	Jaw .. ..	17/7/30	7 months
S.77 .. ..	Rectum .. ..	8/4/30	11 months
Y.62 .. ..	Cervix .. ..	25/4/30	1 year 3 months
S.82 .. ..	Cervix .. ..	15/5/30	10 months
N.14 .. ..	Cervix .. ..	17/7/30	1 year
G.34 .. ..	Cervix .. ..	14/5/30	6 months
H.95 .. ..	Cervix .. ..	25/4/30	5 months
G.35 .. ..	Cervix .. ..	26/3/30	4 months
P.46a .. ..	Cervix .. ..	8/10/30	10 months
S.70 .. ..	Breast .. ..	15/4/30	Chr. Diabetes Mellitus
H.79 .. ..	Breast .. ..	18/4/30	11 months
C.69 .. ..	Breast .. ..	29/4/30	9 months
H.96 .. ..	Breast .. ..	28/3/30	1 year
H.93 .. ..	Breast .. ..	13/2/30	3 months
L.24 .. ..	Vulva .. ..	7/9/30	16 months
S.72 .. ..	Vulva .. ..	29/5/30	13 months
R.34 .. ..	Vulva .. ..	22/6/30	9 months
W.65 .. ..	Cheek .. ..	23/2/30	1 year
O.14 .. ..	Cheek .. ..	Died out of City	
P.41 .. ..	Thyroid .. ..	Died out of City	
M.51 .. ..	Neck .. ..	Died out of City	
M.64 .. ..	Lip .. ..	18/5/30	6 months
W.66 .. ..	Leg .. ..	6/1/30	20 months
C.68 .. ..	Larynx .. ..	17/10/30	13 months
R.30 .. ..	Bladder .. ..	18/1/30	8 months
B.89 .. ..	Thigh .. ..	12/6/30	11 months

Number of Patients who have been brought to the notice of the Committee and who were alive on 1st January .. .. .	1930 312	1931 375
---	-------------	-------------

Of the 375 cases shewn under the 1931 heading—

7	first came under observation in	1925.
15	.. .. .	1926.
18	.. .. .	1927.
55	.. .. .	1928.
104	.. .. .	1929.
176	.. .. .	1930.
<hr/>		
375		

	1929	1930
Number of Patients invited to attend for re-examination by Surgeon or Radium Specialist	220	270
Number actually re-examined .. .. .	176	226

Of the 226 cases shewn under the 1930 heading 6 were reported to be going "downhill." All the others were considered to be progressing satisfactorily.

Reports regarding the 44 patients (the balance of the 270 asked to attend) who were unable to attend for re-examination were obtained from their family doctors. Twenty-two of these cases were reported to be showing definite signs of recurrence.

Reports on the remaining 105 cases who did not receive institutional treatment were received from the family doctors.

#### *Propaganda in Cancer.*

Continuous efforts are made to educate the public as to the necessity of seeking early treatment. A Cancer Week was held and two series of lectures and film demonstrations have been given, and stands have been taken at local Health Exhibitions, where cancer literature has been given a prominent place. In addition also a leaflet dealing with the most important facts regarding cancer was printed and circulated amongst the householders of the city.

In order to keep medical practitioners fully informed as to the trend of events so far as cancer was concerned, in conjunction with the British Empire Cancer Campaign, a series of lectures on the various phases of cancer was arranged and was well attended by practitioners.

*Respiratory Diseases.* Deaths, 446; Mortality rate per 1,000, 1.49.

DEATHS FROM BRONCHITIS AND PNEUMONIA IN PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bronchitis ...	332	413	397	467	407	297	407	388	523	142
Pneumonia ...	299	256	319	375	350	218	373	252	417	266

AGE INCIDENCE OF DEATHS.

Age Periods	1 year	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Bronchitis	9	—	2	—	—	7	30	94
Pneumonia	30	14	11	3	16	30	72	90

*Rheumatic Fever and Organic Heart Disease.* Deaths, 881; Mortality rate per 1,000, 2.95.

The deaths from rheumatic fever numbered 16 and from organic heart disease 865.

The ages at death of the total number of fatal cases of rheumatic fever during the past ten years has been as follows:—

AGE INCIDENCE OF DEATHS FROM RHEUMATIC FEVER, 1921-1930.

	Under 5 years	5-15	15-25	25-45	45-65	Over 65 years
Deaths ... ..	5	32	26	25	28	29

Deaths from organic heart disease in 1930 occurred in 392 cases amongst males, and in 473 cases amongst females. This gives a death-rate of 2.86 per 1,000 amongst males, and 2.92 per 1,000 amongst females. From the table which follows it will be seen that the higher incidence of deaths amongst females occurs at later ages of life.

DEATHS FROM ORGANIC HEART DISEASE, 1930, ACCORDING TO  
SEX AND AGE.

Sex	Under 5 yrs.	5-15	15-25	25-45	45-65	Over 65 yrs.	Total
Males ... ..	1	2	2	27	142	218	392
Females ... ..	—	2	5	28	120	318	473
Total ... ..	1	4	7	55	262	536	865

*Cerebro-Spinal Fever.* There were 13 cases notified, with 5 deaths, in 1930, as against 6 cases, with 2 deaths, in the previous year.

*Encephalitis Lethargica.* The cases numbered 7 and the deaths 3, as against 7 and 3 respectively in 1929.

*Acute Polioencephalitis.* There were no cases notified during the year.

*Deaths from Violence.* Deaths, 188; Mortality rate per 1,000, 0.63.

RECORD OF PREVIOUS YEARS.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths ... ..	132	157	152	145	162	164	171	195	167	188
Mortality rate per 1,000 ... ..	0.45	0.54	0.52	0.49	0.56	0.57	0.58	0.68	0.58	0.63

## V.—MATERNITY AND CHILD WELFARE.

**(A) INFANT MORTALITY IN 1930.**

The infantile mortality rate for the year was 75 per 1,000 births. This rate is 4 per 1,000 births less than the corrected rate for 1929.

## CORRECTED INFANTILE MORTALITY RATES FROM 1921.

Year	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Bradford ... ..	107	85	78	91	94	91	91	70	79	75
England and Wales	80	75	68	74	75	70	69	66	74	60

*Age Distribution of Infantile Mortality.* The infantile mortality rate in the first four weeks of life may be taken as an indication of the operation of antenatal and neonatal causes in bringing about infant deaths. This rate from 1909 is seen in the following table :—

INFANTILE MORTALITY RATE PER 1,000 BIRTHS IN THE FIRST FOUR  
WEEKS OF LIFE, FROM 1909.

Year	Bradford				Total for four Weeks	England and Wales Total for four Weeks
	Week					
	1	2	3	4		
1909	34.3	4.7	5.2	5.2	49	41
1910	28.0	6.2	5.3	5.8	45	38
1911	33.7	7.3	5.6	4.7	51	40
1912	29.4	5.1	5.7	3.2	43	38
1913	32.1	6.5	6.2	3.1	48	39
1914	27.3	5.9	7.2	3.8	44	39
1915	28.2	6.5	5.3	3.9	44	38
1916	31.1	8.1	4.7	4.7	49	37
1917	31.2	7.4	2.6	3.0	44	37
1918	28.1	6.2	3.6	3.6	42	36
1919	34.0	5.9	4.2	2.7	47	40
1920	27.8	8.9	5.8	3.6	46	35
1921	29.9	6.8	4.9	2.8	45	35
1922	22.2	6.5	5.0	3.8	37	34
1923	22.9	5.3	4.0	4.2	36	32
1924	27.3	4.8	5.0	2.4	40	33
1925	23.8	4.1	4.8	3.1	36	32
1926	24.0	6.2	5.5	3.2	39	32
1927	25.0	5.8	3.0	2.5	36	32
1928	26.2	4.3	2.5	0.9	34	31
1929	24.4	3.7	3.9	3.2	35	33
1930	26.7	5.3	3.9	1.6	37	—

This table shows that the death rate among young infants from prenatal and neonatal causes rose slightly last year.

For the remainder of the first year of life, the Infantile Mortality Rate per 1,000 births is given in the following table, which shows a very low rate of infantile mortality after three months in 1930. The table on page 82 shows the state of infantile mortality in Bradford each year from 1881, with the average infantile mortality rate for five yearly periods.

INFANTILE MORTALITY RATE PER 1,000 BIRTHS AFTER THE FIRST MONTH OF LIFE, FROM 1909.

Year	1 to 3 months		3 to 6 months		6 to 12 months	
	Bradford	England and Wales	Bradford	England and Wales	Bradford	England and Wales
1909	22	20	19	19	29	29
1910	22	20	21	19	34	28
1911	26	25	28	26	35	39
1912	19	18	14	15	22	24
1913	21	20	27	20	31	29
1914*	22	19	20	19	35	28
1915*	19	19	21	19	34	34
1916*	24	17	19	15	24	22
1917*	23	17	24	16	31	26
1918*	23	17	23	16	35	28
1919*	18	15	20	13	28	21
1920*	20	16	17	13	17	17
1921*	23	15	18	14	22	19
1922*	15	13	13	11	21	19
1923*	13	11	13	10	15	16
1924*	18	12	14	11	20	19
1925*	16	13	17	11	26	19
1926*	15	12	15	10	22	16
1927*	15	11	15	10	25	17
1928*	15	11	10	9	11	14
1929*	12	12	10	11	23	10
1930*	13		9		15	

\* The figures of infantile mortality for Bradford for these years are founded on numbers of births corrected in each year.

*Illegitimacy and Infantile Mortality.* Since 1921 the number and the percentage of illegitimate births are shown in the following table:—

ILLEGITIMACY IN BRADFORD FROM 1921.

Year	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Number ... ..	355	281	275	285	227	260	255	240	220	259
Percentage of total births ... ..	6.2	5.4	5.2	5.7	4.7	5.5	5.9	5.4	5.1	5.9

The infantile mortality rate is always very much higher among illegitimate than among legitimate infants. The following table shows the corrected Infantile Mortality Rates amongst these two classes of infants for the past ten years :—

CORRECTED INFANTILE MORTALITY RATES AMONG ILLEGITIMATE AND  
LEGITIMATE INFANTS.

Year	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Illegitimate ...	175	157	201	144	123	142	133	115	128	116
Legitimate ...	104	83	72	89	94	89	91	67	77	72

*Place Distribution of Infantile Mortality.* The Ward which showed the highest infantile mortality rate was South, where the rate was 108 per 1,000 births, while the West and West Bowling Wards showed a rate above 100 per 1,000. The rate was lowest in the Great Horton, Thornton, and Heaton Wards. The record of infantile mortality for the past 10 years in the different wards of the city is shown in the table on page 78.

*Causes of Death in Infantile Mortality.* The table on page 79 shows the deaths from stated causes under one year for the past ten years, from which it will be seen that the low rate of infantile mortality last year was mainly due to the decrease in respiratory diseases.

The infantile mortality rate arising from the greatest causes of infantile deaths, namely, Premature Birth, Congenital Defects, and Atrophy, Debility and Marasmus, is shown for the past 10 years in the table below.

INFANTILE MORTALITY PER 1,000 BIRTHS FROM DEVELOPMENTAL AND  
WASTING DISEASES IN BRADFORD SINCE 1921.

Cause of Death	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Premature Birth...	24.8	19.3	20.0	22.2	18.0	22.3	22.0	24.0	18.2	20.0
Atrophy, Debility, and Marasmus ...	8.4	9.8	7.0	7.4	12.6	11.3	7.2	4.8	7.4	8.5
Congenital Mal- formations ...	13.7	7.3	7.2	8.0	7.2	7.6	5.1	5.4	5.5	5.5
Atelectasis ...	1.2	1.5	1.1	0.4	0.8	1.1	1.6	0.7	0.5	3.4

INFANT MORTALITY RATE PER 1,000 BIRTHS, IN WARDS, FOR THE  
YEARS 1921 TO 1930.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Allerton ... ..	142	55	76	26	60	44	63	62	53	73
Bolton ... ..	92	94	91	88	75	99	104	75	60	67
Bradford Moor ... ..	112	80	53	94	76	82	99	40	70	57
Clayton ... ..	16	59	90	58	53	97	34	28	39	81
East ... ..	77	100	63	76	83	86	94	60	126	70
East Bowling ... ..	119	70	76	107	111	164	113	74	98	77
Eccleshill ... ..	63	86	21	84	63	129	61	45	41	85
Exchange ... ..	216	47	77	141	102	169	185	140	182	68
Great Horton ... ..	78	65	69	64	77	57	61	52	62	34
Heaton ... ..	57	76	49	54	64	97	91	66	72	54
Idle ... ..	68	100	64	58	70	61	86	49	92	86
Listerhills ... ..	135	125	118	112	91	111	107	71	105	95
Little Horton ... ..	153	95	96	92	106	67	102	64	101	60
Manningham ... ..	133	96	68	99	78	65	75	43	39	73
North ... ..	119	78	87	143	161	133	120	87	106	96
North Bierley (East) ... ..	63	59	81	112	85	88	109	72	69	77
North Bierley (West) ... ..	86	52	81	73	100	73	75	87	62	71
South ... ..	124	108	144	125	116	130	117	101	108	108
Thornton ... ..	120	57	114	22	96	105	50	89	34	44
Tong ... ..	101	56	71	70	95	57	124	136	59	65
West ... ..	167	130	79	127	153	105	105	124	115	104
West Bowling ... ..	98	110	69	87	127	59	71	68	73	101
City ... ..	109	87	78	92	95	92	92	69	80	75

INFANT MORTALITY: NETT DEATHS FROM STATED CAUSES UNDER 1 YEAR OF AGE FROM 1921.

Causes of Death.	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Small-pox ...	—	—	—	—	—	—	—	—	—	—
Chicken-pox ...	—	—	—	—	—	—	—	—	1	—
Measles ...	15	4	15	1	15	3	21	2	8	2
Scarlet Fever ...	—	1	2	—	—	—	—	1	—	1
Whooping Cough ...	19	16	9	12	20	16	7	21	9	24
Diphtheria and Croup ...	2	1	1	1	2	3	4	1	3	2
Erysipelas ...	—	1	2	—	—	—	2	1	1	1
Tuberculous Meningitis ...	5	3	4	5	1	2	8	2	2	1
Abdominal Tuberculosis ...	—	1	1	3	2	1	—	1	1	—
Other Tuberculous Diseases ...	1	1	2	1	1	4	—	—	2	—
Meningitis (not tuberculous) ...	5	8	7	5	3	4	3	2	6	3
Convulsions ...	38	25	41	39	27	25	28	10	22	21
Laryngitis ...	1	4	1	—	—	—	2	—	2	—
Bronchitis ...	34	41	18	28	36	20	20	7	17	9
Pneumonia (all forms) ...	84	58	41	75	80	39	77	40	62	30
Diarrhoea and Enteritis ...	45	19	22	31	36	63	30	28	20	23
Gastritis ...	7	2	3	3	1	2	4	2	—	3
Syphilis ...	31	15	19	8	8	6	3	3	6	2
Rickets ...	2	5	2	3	—	1	1	—	1	—
Suffocation (overlying) ...	2	2	—	2	2	4	4	6	6	4
Injury at Birth ...	8	4	2	9	2	2	8	5	4	9
Atelectasis ...	7	8	6	2	4	5	7	3	2	15
Congenital Malformations ...	78	38	38	40	35	36	22	24	24	24
Premature Birth ...	141	101	106	111	87	105	91	106	79	87
Atrophy, Debility, and Marasmus ...	48	51	37	37	61	53	31	21	32	37
Other Causes ...	46	47	31	46	38	41	31	21	36	29
Total ...	619	456	412	462	461	435	404	307	346	327

INFANTILE MORTALITY IN CERTAIN GREAT TOWNS FROM 1921.

Deaths per 1,000 Births.

Town.	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Birmingham	82	85	71	80	75	70	72	65	79	62
Bradford	109	87	78	92	95	92	92	69	80	75
Bristol	66	71	61	69	76	68	56	61	61	59
Halifax	98	106	86	93	83	75	81	65	74	62
Huddersfield	85	74	72	95	68	55	71	65	78	56
Hull	94	106	83	90	100	91	91	80	107	71
Leeds	96	97	85	102	87	87	77	77	96	66
Leicester	85	85	81	76	86	74	76	70	81	55
Liverpool	105	94	98	102	98	103	91	92	95	81
London	80	74	60	69	67	64	59	67	70	59
Manchester	94	94	85	97	92	83	82	90	96	78
Newcastle	91	86	89	89	79	78	75	82	83	71
Nottingham	102	81	85	84	94	98	82	85	95	76
Portsmouth	63	63	52	66	61	53	54	54	67	57
Salford	101	103	95	119	103	98	75	96	114	75
Sheffield	98	81	89	88	83	78	89	73	87	66
Stoke-on-Trent	135	115	93	100	105	99	97	86	103	71
West Ham	71	77	58	69	58	56	60	64	77	65

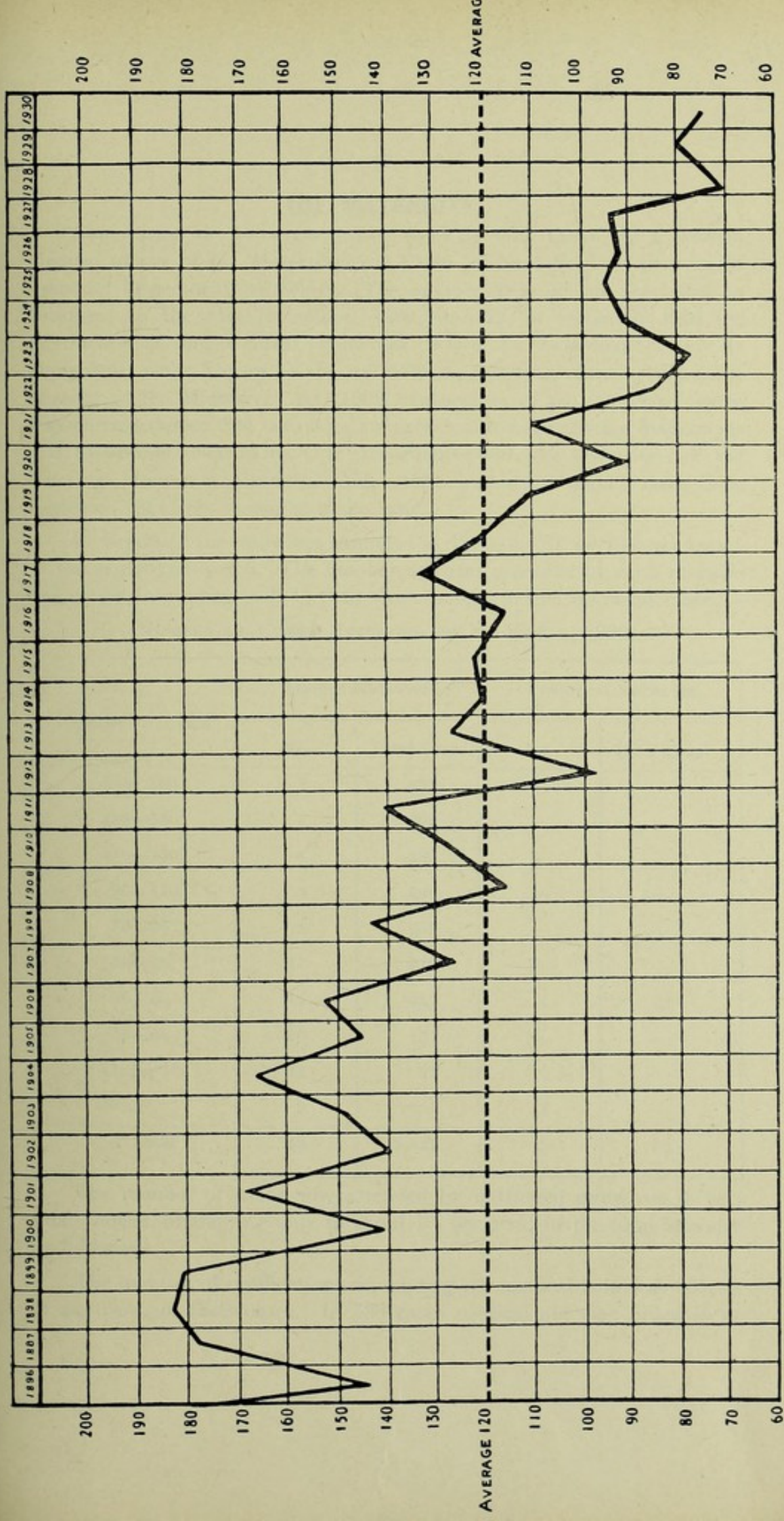
## INFANT MORTALITY, 1904-1930.

YEAR	Deaths under One Year of Age per 1000 Births		
	Total	Diarrhoeal Diseases	Total less Diarrhoeal Diseases
1904	167	29	138
1905	144	21	123
1906	152	34	118
1907	124	11	113
1908	143	30	113
1909	116	6	110
1910	127	20	107
1911	139	32	107
1912	99	4	95
1913	128	27	101
1914	122	15	107
1915	123	16	107
1916	119	11	108
1917	132	8	124
1918	125	9	116
1919	114	8	106
1920	93	6	87
1921	109	8	101
1922	87	4	83
1923	78	4	74
1924	92	6	86
1925	95	7	88
1926	92	13	79
1927	92	7	85
1928	69	6	63
1929	80	5	75
1930	75	5	70

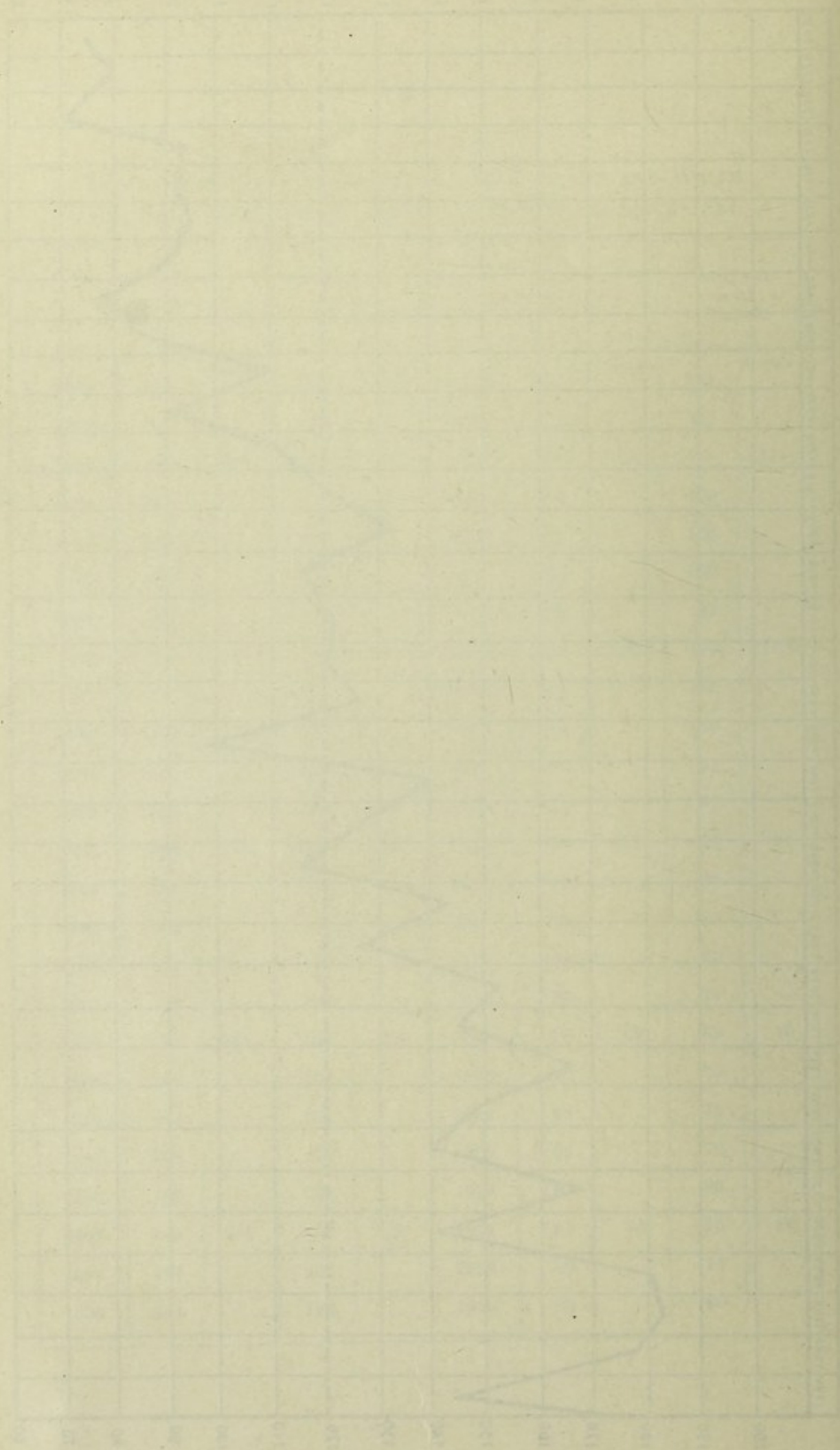
INFANT MORTALITY IN BRADFORD AND ENGLAND AND WALES  
FOR EACH YEAR, AND IN GROUPS OF FIVE YEARS SINCE 1881.

BRADFORD.		ENGLAND AND WALES.	BRADFORD.		ENGLAND AND WALES.				
1881	154	Average	130	Average	1906	152	Average	132	Average
1882	174	} 160	141	} 139	1907	124	} 132	118	} 117
1883	147		137		1908	143		120	
1884	181		147		1909	116		109	
1885	144		138		1910	127		106	
1886	168		149		1911	139		130	
1887	179	} 170	145	} 145	1912	99	} 122	95	} 110
1888	153		136		1913	128		109	
1889	181		144		1914	122		105	
1890	169		151		1915	123		110	
1891	181		149		1916	119		91	
1892	155	} 176	148	} 151	1917	132	} 117	97	} 91
1893	198		159		1918	125		97	
1894	144		137		1919	114		89	
1895	203		161		1920	93		80	
1896	143		148		1921	109		83	
1897	179	} 165	156	} 156	1922	87	} 92	77	} 76
1898	184		160		1923	78		69	
1899	181		163		1924	92		75	
1900	140		154		1925	95		75	
1901	168		151		1926	92		70	
1902	139	} 153	133	} 138	1927	92	} 82	69	} 68
1903	148		132		1928	69		65	
1904	167		145		1929	80		74	
1905	144		128		1930	75		60	

INFANT MORTALITY PER 1,000 BIRTHS, 1896-1930.



Average for 35 years.....120.



**(B) MATERNITY.**

*Supervision of Midwives.* The work is undertaken by a woman medical officer of the Maternity and Child Welfare Staff, with a nurse assistant inspector of midwives. The number of midwives practising in Bradford on the 31st December, 1930, was 72, of whom 69 held the Certificate of the Central Midwives Board by examination, or its equivalent, while 3 were on the roll as *bona-fide* practitioners before the passing of the Midwives' Act, 1902. Inspection of the midwives' work was carried out on 331 occasions, of which 250 were routine inspections and 81 special inspections. In accordance with the provisions of the Nursing Homes Registration Act, 1927, maternity homes have been inspected regularly throughout the year.

In Bradford the midwives attended in 1930, 3,179, or 70.6 per cent., of the registered births. The number of cases attended by each midwife has varied from none to 171; their work is seen in the following table:—

NUMBER OF CASES ATTENDED BY MIDWIVES, 1930.

Number of Cases	Trained Midwives		Untrained Midwives	
	No.	Total Cases	No.	Total Cases
Over 150	3	491	—	—
130—150	2	269	—	—
110—130	4	480	—	—
90—110	4	396	—	—
70—90	3	255	—	—
50—70	11	610	—	—
30—50	11	452	1	32
10—30	10	157	—	—
Under 10	12	37	—	—
None	9	—	2	—
Total	69	3,147	3	32

The number of cases now attended by untrained midwives is very small indeed, amounting only to about 1.1 per cent. of the total attended by midwives.

The number of notifications of sending for medical help was 667, or 21 per cent. of their cases. In 538 cases medical aid was called in on

account of the mother, and in 129 cases on account of the child. The reasons given for medical aid in the case of the mother were as follows :—Ruptured Perineum, 205 cases; Uterine Inertia, 81; Malpresentation, 39; A.P. Hæmorrhage, 29; Pyrexia, 23; Adherent Placenta, 16; P.P. Hæmorrhage, 23; Contracted Pelvis, 73; Premature Birth, 15; Chest Trouble, 3; Debility, 5; Eclampsia, 2; Abortion, 10; Dead Fœtus, 10; Albuminuria, 11; Placenta Prævia, 13; Œdema, 4; Heart Trouble, 1; Abnormal Condition (not due to pregnancy), 19; Emergency, 4.

In the case of the child the reasons for sending for medical aid were as follows :—Dangerous Feebleness (premature or otherwise), 41; Inflammation of Eyes, 43; Convulsions, 10; Malformations, 10; Cleft Palate (Hare Lip), 2; Skin Disease, 2; Jaundice, 4; Spina Bifida, 8; Asphyxia, 5; Abnormal Condition, 5.

Two notices were sent to the Local Supervising Authority of the deaths of infants under the care of midwives before the arrival of a medical practitioner. The midwives reported 36 still births, or about 1·1 per cent. of their cases.

The number of cases attended by municipal midwives in the city was 640, or 20·0 per cent. of the total cases attended by midwives in the city. The average number of cases attended in 1930 by each municipal midwife was 91. The following statement shows the work done by municipal midwives in two years, 1929 and 1930, as compared with the total work by midwives in the city.

#### WORK OF MUNICIPAL MIDWIVES.

	1929		1930	
	All Midwives	Municipal Midwives	All Midwives	Municipal Midwives
Births Attended ...	3,097	733	3,179	640
Medical Aid Notices ...	624	183	667	173
Still Births ...	31	7	36	3
Death of Mother...	1	—	—	—
High Temperature ...	23	10	23	7
Total Visits to Patients...	44,934	11,093	42,948	9,721
Ante-Natal Visits ...	7,092	3,109	7,526	2,121

Under the Midwives' Act, 1918, the total number of claims for midwifery fees sent in by medical practitioners during 1930 was 389. The Local Supervising Authority determined to recover in full 195 of these claims, and in part 62, leaving 132 paid in full by the Authority. The total cost to the Authority of these claims was £248 17s. 3d.

*Ante-Natal Work.* The health visitors carry out home supervision of cases not attending an ante-natal clinic or not under medical supervision or not attended by a municipal midwife. During 1930 they had 177 expectant mothers under observation before the birth of the child, 817 expectant mothers being visited by either municipal midwives or health visitors in the year.

The total number of patients attending the various ante-natal centres in 1930 was 1,464. The number continues to increase, but it is still too small, representing only about 46 per cent. of the cases booking midwives. The total number of attendances amounted to 5,256.

*Still Births.* The number of still births registered in 1930 was 230, or 5.3 per cent. of the live births registered. The number notified was, however, only 195, and for purposes of comparison the following table is given.

STILL BIRTHS NOTIFIED IN PREVIOUS YEARS.

Year	...	...	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Number	...	...	216	223	221	198	186	203	195	200	183	195
Per cent.	...	...	3.8	4.3	4.2	4.0	3.8	4.2	4.5	4.7	4.2	4.3

*Deaths of Women in Childbirth.* In the tables at the end of the report 23 deaths occurring in the puerperal state in the city are shown.

These deaths are classified in the three following tables, according to the age periods of the mother, the duration of pregnancy, and the conditions from which the deaths arose. From these tables it will be noted that 8 of the 23 deaths occurred in pregnancies of less than six months' duration, all in younger women, while 4 of the deaths occurred in women over 40 years where the pregnancy had run full time or nearly so.

## DEATHS IN CHILD BIRTH.

(1) *Age Period and Classified Cause.*

Classified Cause	Age Period						
	20 years	25 years	30 years	35 years	40 years	45 years	Total
Toxaemias ... ..	—	1	2	1	—	—	4
Septic Conditions ... ..	—	4	6	1	3	—	14
Accidents of Pregnancy ... ..	—	—	2	—	2	—	4
Accidents of Parturition ... ..	—	—	—	—	1	—	1
Totals... ..	—	5	10	2	6	—	23

(2) *Duration of Pregnancy and Classified Cause.*

Classified Cause	Duration of Pregnancy										
	1 mon.	2 mos.	3 mos.	4 mos.	5 mos.	6 mos.	7 mos.	8 mos.	9 mos.	un-known	Total
Toxaemias ... ..	—	—	—	—	—	1	1	—	2	—	4
Septic Conditions ... ..	—	1	2	—	1	1	—	1	8	—	14
Accidents of Pregnancy ... ..	1	—	1	—	—	—	—	—	1	1	4
Accidents of Parturition... ..	—	—	—	—	—	—	—	—	1	—	1
Totals ... ..	1	1	3	—	1	2	1	1	12	1	23

(3) *Age Period and Duration of Pregnancy.*

Duration of Pregnancy	Age Period						
	20 years	25 years	30 years	35 years	40 years	45 years	Total
1 month ... ..	—	—	—	1	—	—	1
2 months ... ..	—	—	1	—	—	—	1
3 months ... ..	—	1	2	—	—	—	3
4 months ... ..	—	—	—	—	—	—	—
5 months ... ..	—	—	1	—	—	—	1
6 months ... ..	—	—	2	—	—	—	2
7 months ... ..	—	1	—	—	—	—	1
8 months ... ..	—	—	—	—	1	—	1
9 months ... ..	—	3	4	2	3	—	12
Unknown ... ..	—	—	—	1	—	—	1
Totals... ..	—	5	10	4	4	—	23

The accommodation for Maternity cases available in Bradford includes 10 beds in the Bradford Maternity Hospital, 60 beds at the Municipal General Hospital, and about 6 at St. Monica's Home.

The maternity cases at the Municipal General Hospital numbered 858, and are reported on page 111.

The number of maternity cases dealt with at the Bradford Maternity Hospital in 1930 was 200, the number of live children born was 181, including 15 premature births, 3 of whom died within 14 days, and the number of still births was 4.

The number of maternity cases dealt with at St. Monica's in 1930 was 17.

The number of puerperal fever cases notified in 1930 was 35, and of puerperal pyrexia 40, of which 39 were admitted to hospital and 36 nursed at home. There were 15 deaths from puerperal fever.

The total number of cases of ophthalmia neonatorum notified was 40. All these cases were visited and supervised, and the majority had hospital treatment as out-patients. Of these cases 3 died and 7 were admitted to St. Luke's Hospital with the mother. Of the cases admitted to hospital all except one made a perfect recovery. In this one case enucleation of one eye was necessary and there is a certain amount of scarring of the other eye.

### (C) INFANCY.

During the year 1930 the number of births registered in Bradford was 4,445, while the number notified under the Notification of Births Act, 1907, was 4,506.

#### RECORD OF PREVIOUS YEARS.

	1924	1925	1926	1927	1928	1929	1930
Births registered ... ..	5,010	4,827	4,708	4,316	4,471	4,396	4,445
Births notified ... ..	4,897	4,849	4,702	4,368	4,443	4,406	4,506
*Notifications to 100 registrations ... ..	97.7	100.5	99.9	101.2	99.4	100.2	101.4

\* The comparisons here are not quite accurate, as the times of notification and registration are different and the births to be notified include still births which are not included among those registered.

## TIME OF RECEIPT OF NOTIFICATIONS OF BIRTH IN 1930.

Persons notifying	Receipt of Notification							Total	Per cent received late
	Within 2 days	3-7 days	1-2 weeks	2-3 weeks	3-4 weeks	1-2 m'nths	2-3 m'nths		
Doctor ...	248	88	17	7	5	4	—	369	32·8
Midwife ...	2508	674	20	5	1	1	—	3209	21·8
Father ...	35	16	3	1	—	1	—	56	37·5
Doctor and Midwife ...	7	—	—	—	—	—	—	7	0·0
Father and Doctor ...	1	—	—	—	—	—	—	1	0·0
Institutions	720	142	2	—	—	—	—	864	16·7
Total ...	3519	920	42	13	6	6	—	4506	21·9

Following the receipt of the notification generally all cases notified by midwives are visited as soon as possible after the birth, and also those cases with doctors in attendance where the home circumstances seem to warrant it. The number of births notified in 1930 visited was 4,309, so that practically all the births were visited.

## BIRTHS VISITED IN 1930.

Person in attendance	Times between Birth and Visit					Total
	1 week	2 weeks	3 weeks	4 weeks	Over 4 weeks	
Doctor ...	56	637	11	2	4	710
Midwife ...	2,622	28	2	—	—	2,652
Institution ...	—	931	12	2	2	947

Of the 4,309 births visited it was considered that 60 required visitation once only during the first year, while 4,249 were selected for more frequent revisitation during their first year of life. The total number of visits paid in 1930 to infants was 36,699.

## FEEDING OF INFANTS UNDER VISITATION COMPLETING FIRST YEAR.

	Hand fed from birth	Mixed feeding from birth	Wholly breast fed				
			Under 1 month	Under 3 months	Under 6 months	Under 9 months	9 months and over
Infants ...	24	4	364	735	1,027	1,175	322
Percentage ...	0·7	0·1	10·0	20·1	28·1	32·2	8·3

## WORK OF MOTHERS IN 1930.

	Outside the home			Inside the Home
	Factories	Other Work	Total	
Within six months before birth ...	336	24	360	3,280
Within six months after birth ...	318	11	329	3,311

This table as compared with the previous year shows a less proportionate number of mothers employed outside the home before birth and a higher proportionate number of mothers employed outside the home after birth; this is to be correlated with the larger number of women giving up breast feeding before the infant is six months old, as shown in the preceding table, and may be due to present-day economic conditions.

Of the 360 mothers working within six months before confinement 14 were employed within three months before the birth, and of the 329 mothers working within six months after confinement 26 returned to work within three months after the birth.

The number of cases of epidemic diarrhoea coming under notice and visited by the health visitors last year was 11.

*Child Centres.* The Local Authority conducts 13 Child Clinics in the city, at each of which a medical officer attends. The principal child clinic is situated in Morley Street, and it is open every week-day morning and afternoon except Thursdays and Saturdays, when it is open in the morning only. The following table shows the location of each clinic, the days on which it is in operation, and the total attendances last year.

## CHILD CLINICS IN BRADFORD.

Clinic	Days of Attendance	Times of Attendance	Attendances during year
Central, Morley Street...	Daily ... ..	Morning and Afternoon	26,736
Mount Street ... ..	Tuesday ... ..	Morning and Afternoon	3,706
Green Lane ... ..	Monday and Thursday ... ..	Afternoon only ... ..	4,514
Sticker Lane ... ..	Friday ... ..	Afternoon only ... ..	2,625
Otley Road ... ..	Wednesday ... ..	Morning and Afternoon	5,182
Brownroyd ... ..	Thursday ... ..	Morning and Afternoon	4,206
Great Horton ... ..	Monday ... ..	Morning only ... ..	1,920
Wakefield Road ... ..	Wednesday ... ..	Afternoon only ... ..	2,332
Low Moor ... ..	Tuesday ... ..	Afternoon only ... ..	2,017
West Bowling ... ..	Monday ... ..	Afternoon only ... ..	1,708
Lapage Street ... ..	Thursday ... ..	Afternoon only ... ..	2,769
Idle ... ..	Friday ... ..	Afternoon only ... ..	2,053
Clayton ... ..	Alternate Thursdays ... ..	Afternoon only ... ..	367

These Centres are all doing excellent work and are keenly appreciated by those who take advantage of their services. They are primarily special educational institutions for instruction to mothers on how to keep babies and young children healthy. Mothers seeking such knowledge are welcomed, especially if the baby is well; it is too late often to seek this information when the baby is ill. All mothers require this knowledge, and the work of the Centres is directed to benefiting the child through the mother, whose co-operation is most desired.

The number of attendances in 1930 at the Central Clinic was 26,736, and the number at the District Clinics 33,399, an average of 53 cases per session at the Central Clinics, and 44 cases per session at the District Clinics. There has been an increase of 5,105 attendances at child clinics during 1930, which is altogether satisfactory.

The number of children registered for the first time at the Child Clinics in 1930 was 2,908, an increase of 104. The following table shows the growth of the work since its inception.

## CHILD CLINICS.

Year	New Cases	Total attendances	Average weekly attendances	Average daily attendances
1914	2,488	31,193	600	120
1915	1,987	28,192	540	108
1916	1,998	23,490	452	90
1917	1,721	19,194	369	74
1918	1,606	17,068	328	65
1919	1,810	19,495	375	75
1920	2,832	28,829	554	110
1921	2,872	35,784	688	137
1922	2,115	25,868	497	99
1923	1,926	24,320	468	93
1924	1,822	24,952	480	96
1925	3,102	35,937	680	136
1926	2,551	38,279	736	147
1927	2,341	41,337	795	159
1928	2,604	50,689	975	195
1929	2,804	55,030	1,101	220
1930	2,908	60,135	1,203	241

The work at the Central Clinic is arranged into sessions for infants, sessions for children, and "family" sessions attended by mothers who have an infant and one or more children. At the Branch Clinics, which are attended for the most part by mothers with families—infants and young children are dealt with at each session.

*Death-rate Among Young Children.* The mortality rates among children from 1—2 years and 2—5 years are seen in the following tables. The number of cases of Measles coming under notice under 5 years of age was 1,601, of whom 28 were removed to municipal hospitals. The number of cases of Whooping Cough under 5 years was 971.

MORTALITY RATE BETWEEN 1 AND 2 YEARS PER 1,000 PERSONS LIVING  
AT THESE AGES.

	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
General Mortality Rate ... ..	33.5	19.8	28.7	25.8	30.1	18.6	26.3	14.7	28.8	16.9
Mortality Rate from specified Group Causes:—										
Common Infectious Diseases ... ..	8.77	2.53	7.70	4.26	13.31	3.45	7.81	3.49	8.40	6.30
Influenza ... ..	—	1.55	0.83	1.28	0.22	—	0.47	—	0.51	0.25
Tuberculosis ... ..	3.37	2.91	2.29	2.34	2.40	2.76	2.13	1.25	2.54	1.77
Bronchitis and Pneumonia ... ..	11.92	6.80	9.00	10.23	8.94	4.83	11.13	4.74	12.9	3.53
Diarrhœa and Enteritis ... ..	2.47	0.78	1.04	0.85	1.53	2.07	0.71	2.00	0.76	1.26
Estimated Population between 1 and 2 years on June 30th ...	4,445	5,148	4,801	4,692	4,584	4,347	4,223	4,008	3,928	3,968

MORTALITY RATE BETWEEN 2 AND 5 YEARS PER 1,000 PERSONS LIVING  
AT THESE AGES.

	1923	1924	1925	1926	1927	1928	1929	1930
General Mortality Rate	6.6	6.8	7.19	4.75	7.74	4.08	7.08	5.16
Mortality Rate from Specified Group Causes:—								
Common Infectious Diseases ... ..	2.26	0.91	2.76	1.29	2.63	0.85	2.01	2.00
Influenza ... ..	0.31	0.56	0.0	0.0	0.15	0.08	0.32	0.08
Tuberculosis ... ..	0.70	0.49	0.76	0.65	0.58	0.54	0.64	0.42
Bronchitis and Pneumonia ... ..	1.33	1.83	2.00	0.72	2.12	0.77	1.93	1.08
Estimated Population between 2 and 5 years on June 30th ...	12,806	14,208	14,474	13,907	13,703	12,999	12,422	12,022

**(D) GENERAL.**

The Health Visitors paid 72,015 visits to cases during the year. Of these, 258 were made to ante-natal cases, 36,699 to infants under one year, 4,172 being primary visits, 25,501 to children between 1 and 5 years of age 4,543 to tuberculosis cases, 11 to cases of infective enteritis, 3,274 to cases of measles, 1,572 to cases of whooping cough, and 157 to nursing mothers and other cases.

The dental work in connection with maternity and child welfare is shown in the table on page 126, where it will be seen that 229 mothers and 468 young children were under treatment for dental conditions during 1930.

The main voluntary effort in connection with Maternity and Child Welfare in Bradford is undertaken by the Bradford Maternity Care Committee, which still continues its educational work among mothers attending various centres. Mothers are instructed in dressmaking, sewing, knitting, cookery, and mothercraft by experienced teachers. There have been four centres, namely, Wakefield Road, Otley Road, Lilycroft, and Green Lane, with 5 sewing classes and 1 cookery class; during the year, however, in response to numerous requests, a centre has been opened at Fairweather Green. The total number of mothers registered at the classes is 246, with an average weekly attendance of 17. During the year, 1,100 new garments were made at the classes, and over 200 were re-made from old clothes brought by the mothers. There was also a good proportion of garments knitted by the mothers. A maternity box is available for the use of the poorer members at the time of their confinement.

The Holiday Home at Grassington continues to be very successful, 120 mothers and 224 children having visited the Home. Out of that number, 17 mothers paid for themselves, 13 were sent to the Home by the Health Committee, 70 by the Bradford Hospital and Convalescent Fund, 4 by the Guild of Help, and 16 by other organisations. 105 children were sent by the Victoria Children's Convalescent Fund.

*Home Helps.* During the first full year's working home helps have attended 44 cases, covering 588 days. Of these, 20 received the service free, 20 paid part, and 4 paid full cost.

## VI.—BACTERIOLOGICAL AND PATHOLOGICAL WORK.

The Annual Report on bacteriological and pathological work by the City Pathologist which follows shows how the work continues to develop. The value of this work is very great not only to the Health Department and other departments of the Corporation, but also to the hospitals and public institutions of the city and the public generally. It has been greatly appreciated, but it has grown to such an extent that the laboratory staff, despite an increase during the year, is still strained to its full capacity, not only on account of the increasing amount of work to be done, but also of its increasing complexity and variety. The staff is at present working in two laboratories, the main one at Edmund Street and the other at St. Luke's Hospital.

In the Report particular attention should be drawn to the results of the examinations of the milk supplies in the city, which indicate that, on the whole, a high standard of cleanliness is maintained in city-produced milk. This, along with the increase in the city in the production of Grade "A" milk is eminently satisfactory. The figures also clearly indicate that the standard set up by the Minister of Health in the Milk (Special Designations) Order 1923 could now be revised so far as Bradford is concerned. With respect to the water examinations note might also be made of the great improvement which has now occurred.

## REPORT BY THE CITY PATHOLOGIST,

M. A. C. BUCKELL, M.B., B.S. (London), D.P.H.

Twenty-three thousand eight hundred and seventy-two specimens were examined during 1930. The continued growth of the work of the Laboratory is seen in the following figures:—

1930	...	23,872	1927	...	17,770
1929	...	22,695	1926	...	15,675
1928	...	19,944	1925	...	14,396

The 23,872 specimens were distributed as follows:—

Anthrax	...	...	...	...	329
Infectious Diseases	...	...	...	...	15,772
Food, etc.	...	...	...	...	3,791
Miscellaneous Specimens	...	...	...	...	3,980
					<hr/>
					23,872
					<hr/>

## ANTHRAX.

*Human.* One suspected case was investigated; this was negative.

*Wool, etc.* Only seven samples were received from local sources; all were negative.

As in past years investigations for the control of the Government Wool Disinfecting Station (Home Office) at Liverpool were carried out. One hundred and thirty-four samples of disinfected wool, etc., were examined for anthrax; in none of these was any anthrax found.

One hundred and fifty-eight samples of raw wool, etc., were examined; in these B. Anthracis was recovered from:—

5	out of 70	samples of	Karachi	Goat	Hair.
1	„ „	2	„ „	Bombay	Goat Hair.
3	„ „	3	„ „	Turkish	Goat Hair.
3	„ „	16	„ „	Egyptian	Wool.
1	„ „	2	„ „	E. Indian	Wool (Harnai).
4	„ „	4	„ „	Fawn	Persian Locks.

## ANTHRAX SUMMARY :

	Total	Positive
Human ... ..	1	0
Wool, etc., Local ... ..	7	0
Home Office, Raw ... ..	158	17
Home Office, Disinfected ... ..	134	0
Biological Tests ... ..	29	0
	329	17

## INFECTIOUS DISEASES.

*Enteric Fever.* Six cases of infection by Paratyphosus B. were detected by serological means; three of these were confirmed by culture.

*Undulant Fever.* Two cases were detected within the city, and a small outbreak was investigated in one of the city's institutions, resulting in the detection of three cases and the possibility of one or two others being mildly affected. The milk supply was examined, and cows suffering from infectious abortion were found and the milk supply freed from infection. No further cases have occurred.

*Venereal Diseases.*

## Wassermann Reactions.

	Treatment Centre	Practitioners.	Institutions.	Total
1928 ...	645 ...	332 ...	1,779 ...	2,756
1929 ...	691 ...	357 ...	2,224 ...	3,272
1930 ...	939 ...	416 ...	2,509 ...	3,864

## Smears for Gonococci.

1928 ...	2,506
1929 ...	2,181
1930 ...	2,277

Dark ground examinations, 42.

Colloidal Gold Reactions, 22.

*Summary, 1930 :*

Wassermann Reactions ...	3,864
Smears for Gonococci ...	2,277
Dark ground examinations ...	42
Colloidal Gold Reactions ...	22
	<hr/>
	6,205
	<hr/>

## INFECTIOUS DISEASES SUMMARY :

Cerebrospinal Fever ...	15
Diphtheria ...	5,841
Dysentery ...	12
Enteric Fever ...	240
Food Poisoning ...	6
Malaria ...	3
Tuberculosis—Sputa ...	2,970
Cerebrospinal fluid ...	23
Pus, etc. ...	43
Urine ...	52
Fæces ...	9
Body fluids ...	22
Biological tests ...	11
Puerperal Fever ...	196
Undulant Fever ...	93
Venereal Diseases ...	6,205
Vincent's Angina ...	30
Weil's Disease ...	1
	<hr/>
	15,772
	<hr/>

## FOOD, ETC.—MILK.

One thousand two hundred and thirty-five samples of milk were examined by the methods laid down in the Ministry of Health's Memo., Foods/139. The results from these were as follows :—

(A) *The Municipal Milk Depot.*

One hundred samples of Grade A.T.T. milk as received at the Depot were examined. B. Coli was absent from 0.1 c.c. in 93%. Seven per cent. of the samples failed to reach the required standard. Two samples showed more than 30,000 organisms per c.c.

One hundred and fifty samples of milk received at the Depot from other sources were examined; the results are given in the following table :—

DEPOT SAMPLES FROM " OTHER " SOURCES.

No. of samples examined	B. coli absent from				No. of organisms c.c.	
	1.0 c.c.	0.1 c.c.	0.01 c.c.	0.001 c.c.	Less than 30,000	More than 200,000
150	32.6%	68.6%	91.3%	98%	88.6%	11.3%

68.6% of these samples fulfil the requests for " Certified " milk.

(B) *From the City's Inspectors.*

Six hundred and thirty-two samples were received; 262 of these were from 220 sources within the city; 312 were from 260 sources outside the city. These were all street samples of " raw " milk.

The results are given in the following tables :—

Source	No. of Samples Examined	B. Coli absent from			
		1.0 cc.	0.1 cc.	0.01 cc.	0.001 cc.
City within ... ..	262	38.17%	66.03%	88.17%	96.95%
City outside ... ..	312	28.2%	52.57%	79.49%	89.10%

Source	No. of Samples Examined	Organisms per c.c.		
		Less than 10,000	Less than 30,000	More than 200,000
City within ... ..	262	59.16%	76.34%	0.0%
City outside ... ..	312	60.58%	81.09%	1.60%

From these figures it will be seen that the percentage of samples reaching certified standard (the highest set by the Ministry of Health,

absence of B. Coli in 0.1 c.c., and less than 30,000 organisms per c.c.) is :—

City, within	...	...	...	66.56%
City, outside	...	...	...	54.52%
All samples	...	...	...	60.61%

The figures are not quite as good as those of the previous year. But although the percentage of samples fulfilling Certified Standard is less, a larger proportion of samples in 1930 were free from B. Coli in 1.0 c.c. than in former years.

PERCENTAGE OF SAMPLES PASSING " CERTIFIED " STANDARD.

	1930		1929		1928	
	No. of Samples	Certified Standard	No. of Samples	Certified Standard	No. of Samples	Certified Standard
City within ...	262	66.03%	241	70.12%	290	66.56%
City outside ...	312	52.57%	280	59.92%	299	54.52%
All City Samples...	574	58.71%	521	64.30%	589	60.61%

Average of 3 years.	No. examined.	Pass Certified Standard.
City samples in and out	... 1,684	... 61.2%

(D) *From the City's Inspectors.*

Thirty-eight samples of Grade "A" and 12 of "Certified" milk were received, the latter on behalf of the Ministry of Health. Also 9 samples of heat-treated milk and 2 of cream.

*Grade "A" Milk.*

(Standard: No B. Coli in 0.01 c.c. and less than 200,000 organisms per c.c.)

Examined.	Passed.	Failed.
38	35	3

*Certified Milk.*

(Standard: No B. Coli in 0.1 c.c. and less than 30,000 organisms per c.c.)

Examined.	Passed.	Failed.
12	9	3

## MILK SUMMARY :

Milk Depôt—A.T.T.	...	...	...	...	...	100
Other Sources	...	...	...	...	...	150
Bottles as issued	...	...	...	...	...	47
St. Luke's Hospital	...	...	...	...	...	163
City Samples—Within	...	...	...	...	...	262
Outside	...	...	...	...	...	312
Certified	...	...	...	...	...	12
Grade "A"	...	...	...	...	...	38
Heat Treated	...	...	...	...	...	9
Cream	...	...	...	...	...	2
Other Samples	...	...	...	...	...	157
Veterinary Milks for T.B.	...	...	...	...	...	220
Biological Tests for T.B.	...	...	...	...	...	729
						2,201

## ICE CREAM.

The results of the bacteriological examination of 84 samples of ice cream, etc. show, as in former years, that there is urgent need for the control of this product.

The results vary from no B. Coli in 1 c.c. and a count of 4,100 organisms per c.c. to B. Coli in 0.0001 c.c. and more than 4,000,000 organisms per c.c.

With reasonable cleanliness and care ice cream is readily prepared as pure as the purest milk, and anything less than this standard should not be accepted.

In view of the frequency with which this substance is incriminated in the spread of disease, it is much to be hoped that some control will soon be instituted.

#### WATER.

One hundred and sixty-five samples of water from the city's supply were examined, and give better results than in past years. That *B. Coli* should still be recovered from quantities as small as 10 c.c. shows that certain of the sources of supply are at times liable to pollution.

#### BRADFORD WATER—BARDEN MOOR.

*Percentage of Samples showing the presence of excremental B. Coli.*

	1925	1926	1927	1928	1929	1930
Absent from 100 cc. ...	—	—	2.0%	8.8%	62.85%	75.51%
Present in 100 cc. ...	100.0%	100.0%	98.0%	91.0%	37.14%	38.0%
10 cc. ...	100.0%	81.0%	75.6%	33.3%	1.43%	5.1%
1 cc. ...	66.0%	21.3%	10.3%	—	—	—
0.1 cc. ...	29.6%	—	—	—	—	—
0.01 cc....	11.1%	—	—	—	—	—
No. of Samples ...	27	33	49	46	70	98

#### BRADFORD WATER—THORNTON MOOR.

*Percentage of Samples showing the presence of excremental B. Coli.*

	1926	1927	1928	1929	1930
Absent from 100 cc. ...	9.1%	—	16%	70.38%	78.26%
Present in 100 cc. ...	90.9%	100.0%	84%	25.92%	17.39%
10 cc. ...	50.0%	81.8%	20%	3.70%	4.35%
1 cc. ...	13.6%	9.1%	—	—	—
0.1 cc ...	—	—	—	—	—
No. of Samples ...	22	22	25	27	23

#### BRADFORD WATER—NIDD VALLEY.

*Percentage of Samples showing the presence of excremental B. Coli.*

	1927	1928	1929	1930
Absent from 100 cc. ...	—	—	47.82%	88%
Present in 100 cc....	100.0%	100.0%	47.82%	12%
10 cc....	100.0%	84.0%	4.36%	—
1 cc....	83.6%	15.6%	—	—
0.1 cc. ...	12.0%	—	—	—
No. of Samples ...	160	202	38	50



## VII.—HOSPITAL ACCOMMODATION.

In the first portion of this report reference is made to the hospital accommodation of the City ; in this portion further details of the hospitals under the control of the Local Authority are given.

## (A) MUNICIPAL GENERAL HOSPITAL.

REPORT BY HOLROYD SLATER, B.A., M.B., F.R.C.S., MEDICAL SUPERINTENDENT.

I have the honour to present the eleventh annual Report on the working of the Bradford Municipal General Hospital for the year ended December 31st, 1930.

General comparisons for the last eleven years are shown in the following table :—

	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920
No. of Admissions	6591	6915	7176	6707	6905	6565	6139	5608	5141	4482	3804
No. of Live Births	789	702	654	539	592	485	466	463	360	372	158
No. of Operations	2117	2158	2219	1973	2249	2018	1824	1799	1419	752	428
Average time in Hospital (in days)	37.2	35.6	34.5	29.9	30.4	28.7	31.4	32.5	28.3	30.1	36.1

		Public Civic. Assistance.	Pensioners.	Total.
No. of In-patients on Dec. 31st, 1929...	426	260	1	687
No. of Admissions during the year ...	5193	1394	4	6591
No. of Live Births during the year ...	776	13	—	789
				8067
No. of In-patients on Dec. 31st, 1930...	451	264	2	717
No. of Discharges and Deaths during the year ...	5886	1458	6	7350
				8067

The admissions from outside have been distributed through the Wards as follows :—

(The corresponding figures for 1929 are given in brackets.)

	Male.	Female.	Total.
Medical Wards ... ..	1293 (1514)	967 (1175)	2260 (2689)
Surgical Wards ... ..	1154 (1225)	1296 (1342)	2450 (2567)
Children's Wards ... ..	360 (340)	382 (372)	742 (712)
Maternity Wards ... ..	— —	1139 (947)	1139 (947)
Live Births ... ..	394 (345)	395 (357)	789 (702)
	<u>3201 (3424)</u>	<u>4179 (4193)</u>	<u>7380 (7617)</u>

The admissions are shown in greater detail in the accompanying table.



## CASES OF INFECTIOUS DISEASE.

Anthrax	...	...	...	...	...	...	...	1
Cerebro spinal Meningitis	...	...	...	...	...	...	...	3
Chicken Pox	...	...	...	...	...	...	...	10
Diphtheria	...	...	...	...	...	...	...	6
Dysentery	...	...	...	...	...	...	...	4
Encephalitis Lethargica	...	...	...	...	...	...	...	2
Enteric Fever	...	...	...	...	...	...	...	1
Erysipelas	...	...	...	...	...	...	...	22
Influenza	...	...	...	...	...	...	...	26
Measles	...	...	...	...	...	...	...	15
Measles, German	...	...	...	...	...	...	...	1
Mumps	...	...	...	...	...	...	...	1
Ophthalmia Neonatorum	...	...	...	...	...	...	...	10
Pemphigus	...	...	...	...	...	...	...	1
Puerperal Sepsis	...	...	...	...	...	...	...	44
Ringworm	...	...	...	...	...	...	...	2
Scabies	...	...	...	...	...	...	...	4
Scarlet Fever	...	...	...	...	...	...	...	7
Whooping Cough	...	...	...	...	...	...	...	21
					...	...	Total	181

TABLE SHOWING DISEASES FROM WHICH PATIENTS HAVE SUFFERED.

DISEASE	Males.	Females.	DISEASE	Males.	Females.	DISEASE	Males.	Females.
Abortion ... ..	—	55	Conjunctivitis ... ..	1	1	Fracture of—	—	—
Abscess ... ..	43	13	Conjunctivitis, Phlyctenular ... ..	—	1	Fibula ... ..	—	2
Acne ... ..	1	—	Colic, Intestinal ... ..	16	18	Fibula and Tibia ... ..	16	16
Acute Yellow Atrophy of Liver ... ..	—	1	Colic, Renal ... ..	1	—	Humerus ... ..	9	7
Acetonuria ... ..	—	2	Colitis, mucous ... ..	—	3	Mandible ... ..	2	—
Adenitis (Simple) ... ..	14	10	Corneal Ulcer ... ..	2	—	Metatarsal ... ..	1	—
Adenitis (Suppurating) ... ..	8	9	Constipation ... ..	22	15	Oscalcis ... ..	1	—
Adenoids and Tonsils ... ..	24	26	Contracted Finger ... ..	1	—	Pelvis ... ..	2	—
Adenoma of Breast ... ..	—	16	Convulsions ... ..	5	4	Phalanx ... ..	—	1
Adenoma of Thyroid ... ..	1	1	Coryza ... ..	8	1	Radius ... ..	1	12
Alcoholism ... ..	12	1	Coxa Vara ... ..	1	—	Ribs ... ..	3	3
Alopecia ... ..	2	—	Cystitis ... ..	11	19	Skull ... ..	4	4
Amblyopia ... ..	—	1	Cystocele ... ..	—	1	Tibia ... ..	7	6
Amnesia ... ..	—	1	Cyst of Parotid Gland... ..	—	1	Ulna ... ..	—	1
Anæmia (Simple) ... ..	1	9	Dachryocystitis ... ..	—	1	Ulna and Radius ... ..	3	—
Anæmia (pernicious) ... ..	10	2	Debility ... ..	34	24	Gall Stones ... ..	7	20
Aneurism aortic ... ..	1	1	Deflected Septum Nasi ... ..	5	3	Ganglion ... ..	3	2
Anthrax ... ..	—	1	Delirium Tremens ... ..	2	—	Gangrene of—	—	—
Aphasia... ..	1	—	Dementia ... ..	—	3	Leg (diabetic) ... ..	—	3
Appendicitis Acute ... ..	44	34	Dental Caries ... ..	8	4	Leg (senile) ... ..	9	2
Appendicitis Chronic ... ..	67	138	Dermatitis—	—	—	Penis ... ..	—	—
Arterio-Sclerosis ... ..	14	2	Acute exfoliata ... ..	2	1	Gastric Ulcer ... ..	25	10
Arthritis, acute ... ..	3	3	Chronic ... ..	26	7	Gastric Ulcer (perftd.) ... ..	1	3
Attempted suicide by	—	—	Dermoid Cyst ... ..	3	1	Gastritis ... ..	31	19
Ammonia ... ..	1	—	Diabetes Mellitus ... ..	22	23	Gastro-enteritis ... ..	5	10
Carbolic Acid ... ..	1	2	Diarrhoea ... ..	4	1	Gastroptosis ... ..	2	2
Cut Throat ... ..	7	1	Diphtheria ... ..	3	3	G.P.I. ... ..	5	1
Drowning ... ..	2	—	Diplopia ... ..	1	—	Genu-Valgum ... ..	4	1
Hydrochloric Acid ... ..	—	1	Dislocation of—	—	—	Genu-Varum ... ..	7	6
Gas ... ..	10	9	Hip ... ..	1	—	Glaucoma ... ..	1	1
Hanging ... ..	1	—	Hip, congenital ... ..	1	3	Gonorrhœa ... ..	17	19
Liniment ... ..	—	1	Humerus ... ..	—	7	Gonorrhœa and Syphilis ... ..	—	1
Lysol ... ..	3	—	Elbow ... ..	—	1	Gonorrhœal conjunctivitis ... ..	3	7
Paraldehyde ... ..	1	—	Mandible ... ..	1	—	Gonorrhœal arthritis ... ..	3	4
Wound of Abdomen	—	1	Patella ... ..	—	1	Goitre ... ..	3	3
Radial Artery,	—	—	Semilunar cartilage	—	—	Hæmatemesis ... ..	11	9
Wound of	—	1	(Knee) ... ..	6	—	Hæmaturia ... ..	9	2
Strangulation ... ..	1	—	Disseminated Sclerosis ... ..	6	2	Hæmophilia ... ..	1	—
Aural, Polypus ... ..	—	1	Diverticulitis ... ..	1	2	Hæmorrhoids ... ..	31	10
Baker's Cyst, Knee ... ..	3	—	Duodenal Ulcer ... ..	56	8	Hæmorrhoids ... ..	2	1
Bacilluria ... ..	2	1	Duodenal Ulcer, (perforated) ... ..	22	2	Hallux Valgus ... ..	1	3
Balanitis ... ..	4	—	Dupuytren's Contraction ... ..	4	—	Hammer Toe ... ..	1	3
Bartholin's Cyst ... ..	—	2	Dysentery ... ..	3	1	Hemiplegia ... ..	38	25
Bedsores ... ..	—	2	Dysmenorrhœa ... ..	—	10	Hernia—	—	—
Blepharitis ... ..	1	—	Dyspareunia ... ..	—	1	femoral ... ..	—	5
Boils ... ..	21	7	Dyspepsia ... ..	15	6	inguinal ... ..	92	6
Bronchial Cyst... ..	—	2	Dysuria ... ..	—	1	umbilical ... ..	—	3
Bronchial Asthma ... ..	11	8	Eczema ... ..	14	8	ventral ... ..	5	6
Bronchopneumonia ... ..	25	22	Empyema ... ..	10	7	strangulated femoral ... ..	—	6
Bronchitis, Acute ... ..	34	27	Encephalitis Lethargica ... ..	—	2	strangulated inguinal ... ..	9	5
Bronchitis, Chronic ... ..	136	49	Endometritis ... ..	—	20	strangulatedumbilical ... ..	—	5
Bronchiectasis ... ..	—	1	Endarteritis Obliterans ... ..	1	—	Herpes ... ..	1	—
Bruises, etc. ... ..	41	18	Enteritis ... ..	7	8	Herpes Zoster ... ..	2	—
Bulbar Paralysis ... ..	—	1	Enteric Fever ... ..	1	—	Hepatic Abscess ... ..	1	—
Burns and Scalds ... ..	5	7	Enuresis ... ..	2	—	Hodgkin's Disease ... ..	1	—
Bursitis ... ..	—	1	Epilepsy ... ..	30	22	Hydatid Cyst ... ..	—	1
Bursitis suppurating ... ..	—	3	Epulis ... ..	—	2	Hydrocele ... ..	19	—
Carbuncle ... ..	9	2	Erb's Palsy ... ..	1	—	Hydrocephalus ... ..	1	—
Caruncle Urethral ... ..	—	9	Erysipelas ... ..	11	11	Hydrosalpinx ... ..	—	1
Cataract ... ..	6	11	Erythema Nodosum ... ..	1	4	Hypernephroma ... ..	—	2
Cellulitis ... ..	63	30	Exostosis ... ..	—	9	Hydronephrosis ... ..	3	—
Cephalgia ... ..	1	2	Extravasation of Urine ... ..	1	—	Hyperpiesis ... ..	7	3
Cerebral—	—	—	Fæcal Impaction ... ..	1	4	Hyperchlorhydria ... ..	1	3
Abscess ... ..	3	—	Favus ... ..	—	1	Hyperthyroidism ... ..	2	2
Concussion ... ..	7	3	Fibrositis ... ..	8	2	Hypermetropia ... ..	1	—
Hæmorrhage ... ..	42	23	Fibroid of Uterus ... ..	—	39	Hypospadias ... ..	2	—
Syphilis ... ..	2	—	Fissure of Anus ... ..	3	4	Hypothyroidism ... ..	1	—
Thrombosis ... ..	11	10	Fistula in Ano... ..	5	3	Hysteria ... ..	5	9
Tumour ... ..	—	2	Fistula Recto-vaginal... ..	1	2	Imbecility ... ..	—	1
Cerebro Spinal Meningitis ... ..	1	2	Fistula Recto-vesical... ..	1	1	Impetigo ... ..	14	13
Charcot's Joint ... ..	—	1	Flat Foot ... ..	1	3	Influenza ... ..	8	18
Chicken Pox ... ..	7	3	Foreign Bodies in—	—	—	Intestinal Obstruction—	—	—
Chilblains ... ..	—	1	Heel ... ..	1	—	Acute ... ..	11	8
Cholecystitis ... ..	5	24	Skull ... ..	1	—	Chronic ... ..	2	—
Chondroma-Phalanx ... ..	—	1	Stomach ... ..	1	—	Intussusception ... ..	1	2
Chorea ... ..	15	19	Thigh ... ..	—	1	Ischio-rectal abscess ... ..	17	6
Cleft Palate ... ..	2	—	Fracture of—	—	—	Jaundice, catarrhal ... ..	2	11
Cirrosis of Liver ... ..	4	2	Femur ... ..	15	23	Keloid ... ..	1	—
Coma ... ..	—	1				Keratitis ... ..	4	6
						Laryngitis ... ..	2	2
						Leucorrhœa ... ..	—	8

TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—*continued.*

DISEASE	Males.	Females.	DISEASE	Males.	Females.	DISEASE	Males.	Females.
Leukoplakia ...	1	—	Neuritis, Peripheral ...	10	7	Ruptured Perineum ...	—	11
Lipoma ...	2	2	Neuroma ...	2	5	Ruptured Tubal Gestation ...	—	15
Locomotor ataxy ...	13	1	Œsophageal Spasm ...	1	—	Ruptured Urethra ...	1	—
Lumbago ...	16	3	Onychia ...	3	4	Salpingitis ...	—	31
Lymphangitis ...	1	—	Orchitis ...	8	—	Salvarsan, Effects of ...	3	—
Lymphadenoma ...	1	—	Osteomyelitis, acute ...	4	3	Scabies ...	4	—
Malignant disease of—			Otitis, external ...	1	—	Scarlet Fever ...	4	3
Bladder ...	3	3	Osteitis Deformans ...	4	—	Sciatica ...	5	7
Breast ...	—	29	Ovarian Cyst ...	—	21	Sebaceous Cyst ...	8	1
Colon ...	19	14	Oxaluria ...	1	—	Seborrhœa ...	1	—
Fauces ...	—	1	Painful Scar ...	—	1	Sinus ...	7	4
Femur ...	1	1	Painful Stump ...	2	—	Senile Decay ...	45	47
Glands of Neck ...	4	1	Paget's Disease, Nipple ...	—	1	Sinusitis, frontal ...	1	—
Larynx ...	1	—	Papilloma of—			Sinusitis ...	1	1
Lip ...	2	—	Bladder ...	2	—	Spina Bifida ...	2	2
Liver ...	3	2	Skin ...	1	—	Splenic Anæmia ...	1	—
Lungs ...	3	—	Tongue ...	1	—	Spondylitis Deformans ...	3	—
Mandible ...	4	—	Paralysis Agitans ...	4	2	Sprains of Joints ...	16	4
Maxilla ...	2	—	Paranoia ...	—	1	Sterility ...	—	6
Mediastineum ...	2	1	Paralysis, Infantile ...	2	1	Stomatitis ...	1	3
Œsophagus ...	12	1	Paraphimosis ...	1	—	Stone in—		
Orbit ...	—	1	Paraplegia ...	6	7	Bladder ...	1	—
Ovary ...	—	1	Pediculosis ...	3	—	Kidney ...	11	10
Pancreas ...	2	1	Pelvic Cellulitis ...	—	1	Ureter ...	2	—
Parotid ...	1	—	Pemphigus ...	—	2	Strabismus ...	25	13
Penis ...	3	—	Periostitis ...	1	2	Stricture of Œsophagus ...	1	1
Peritoneum ...	1	1	Pes Cavus ...	2	—	Ureter ...	1	—
Prostate ...	6	—	Periurethral Abscess ...	1	—	Urethra ...	22	—
Rectum ...	5	4	Peritoneal Adhesions ...	2	4	Sunstroke ...	1	—
Skin ...	5	6	Perthe's Disease ...	1	1	Sycosis ...	4	—
Stomach ...	16	8	Pharyngitis ...	1	—	Synovitis ...	8	7
Testicle ...	1	—	Phlebitis ...	2	9	Syphilis, acquired ...	11	14
Thigh ...	1	—	Phimosis ...	30	—	Syphilis, congenital ...	1	1
Thyroid ...	1	—	Pituitary Tumour ...	—	2	Tape Worm ...	2	2
Tongue ...	5	—	Pityriasis ...	1	—	Thread Worms ...	4	1
Tonsil ...	1	—	Pleurisy, plastic ...	22	16	Talipes Valgus ...	2	—
Uterus ...	—	43	Pleurisy, with effusion ...	9	5	Talipes Equinovarus ...	3	2
Uvulva ...	1	—	Pleurodynia ...	1	—	Teno Synovitis ...	—	1
Vulva ...	—	2	Pneumoconiosis ...	1	—	Tonsillitis ...	4	43
Malnutrition ...	—	1	Pneumonia, lobar ...	83	37	Torticollis spasmodic...	1	2
Malingering ...	7	4	Poliomyelitis, anterior ...	—	1	Thyroid Hypertrophy...	1	—
Mammary Abscess ...	—	32	Polydactylism ...	1	—	Tubercular disease of—		
Mastitis ...	1	11	Post Encephalitis ...	2	4	Axillary Glands ...	—	1
Mastoiditis, acute ...	1	2	Pregnancy ...	—	332	Bladder ...	1	—
Mastoiditis, chronic ...	16	5	Prematurity ...	1	4	Breast ...	—	2
Marasmus ...	16	9	Prolapse of—			Cervical Glands ...	5	5
Measles ...	1	14	Ovary ...	—	1	Fallopian Tube ...	—	1
Measles, German ...	1	—	Rectum ...	1	5	Elbow ...	1	—
Melæna ...	1	—	Uterus ...	—	34	Hip ...	5	3
Melancholia ...	2	3	Prostatic enlargement... 48	—	—	Intestine ...	1	—
Menopause ...	—	4	Pruritus Ani ... 1	2	—	Kidney ...	—	2
Meniere's disease ... 1	—	—	Pruritus Vulvæ ... 2	—	—	Knee ...	9	1
Meningitis, acute ... 2	3	—	Psoriasis ... 5	5	—	Larynx ...	1	2
Meningitis, chronic ... 1	1	—	Puerperal Sepsis ... 44	—	—	Lungs ...	115	33
Meningitis, pneumococcal ... 1	1	—	Puerperium ... 16	—	—	Meninges ...	—	1
Menorrhagia ... 31	—	—	Pulmonary Abscess ... 1	—	—	Peritoneum ...	12	14
Metatarsalgia ... 1	—	—	Purpura Hæmorrhagia ... 1	—	—	Phalanges ...	—	1
Metorrhagia ... 8	—	—	Pyloric Stenosis (Congenital) ... 2	1	—	Rib ...	1	—
Migraine ... 2	2	—	Pyelitis ... 1	6	—	Skin ...	1	—
Monoplegia ... 1	1	—	Pyonephrosis ... 1	—	—	Spine ...	7	9
Morbus Cordis ... 100	131	—	Pyorrhœa Alveolaris ... 2	5	—	Testicle ...	2	—
Movable Kidney ... 2	—	—	Ranula ... 1	1	—	Tibia ...	2	—
Myelitis ... 1	2	—	Raynaud's Disease ... 1	—	—	Wrist ...	—	1
Myxœdema ... 1	—	—	Rectal Polypus ... 1	—	—	Ulcer of Leg ...	24	22
Myalgia ... 1	—	—	Retained Placenta ... 1	—	—	Undescended Testicle... 12	—	—
Nævus ... 1	—	—	Retroverted Uterus ... 19	—	—	Urethritis ...	1	—
Necrosis of—			Retroverted Gravid ... 2	—	—	Urticaria ...	4	1
Femur ...	1	—	Rheumatic Fever ... 9	24	—	Vaginitis ...	—	8
Jaw ...	—	1	Rheumatism, subacute ... 16	23	—	Varicocele ...	2	—
Phalanx ...	—	1	Rheumatism, chronic... 18	18	—	Varicose Veins ...	6	13
Tibia ...	1	1	Rheumatoid Arthritis... 14	16	—	Vertigo ...	3	2
Nephritis, Acute ... 4	8	—	Rickets ... 12	4	—	Visceroptosis ...	4	6
Nephritis, Chronic ... 31	36	—	Ringworm ... 6	4	—	Whooping Cough ...	8	13
Neuralgia ... 2	1	—	Ruptured Kidney ... 1	—	—	Wounds ...	11	13
Neuralgia, Trigeminal... 4	2	—						
Neurasthenia ... 29	40	—						

## SURGICAL DEPARTMENT.

The number of operations performed during the year was 2,117, as compared with 2,158 last year. The operation death rate was 3.5 per cent. as against 4.3 per cent. last year. The various forms of anæsthesia employed and the number of operations performed under each are shown in the following table:—

	Laparotomies	Other Operations	Total
Spinal—(Stovaine or Spinocaine) ... ..	317	260	577
Spinal—Avertin ... ..	35	—	35
Avertin—Open Ether ... ..	85	57	142
Rectal Ether ... ..	1	16	17
Local Infiltration (Novocaine and Cocaine)... ..	9	269	278
General (Ether, Chloroform, Gas) ... ..	207	861	1,068
<b>Totals ... ..</b>	<b>654</b>	<b>1,463</b>	<b>2,117</b>

Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
<b>LAPAROTOMIES.</b>			<b>LIVER.</b>		
Exploratory ... ..	16	3	Cholecystectomy ... ..	18	1
For Tubercular Peritonitis ... ..	5	—	Cholecystotomy ... ..	9	1
For Acute Peritonitis ... ..	1	1	Choledochotomy ... ..	1	3
<b>Total ... ..</b>	<b>22</b>	<b>4</b>	<b>Total ... ..</b>	<b>28</b>	<b>5</b>
<b>HERNIA.</b>			<b>UTERUS AND APPENDAGES.</b>		
Radical cure, Umbilical ... ..	2	—	Cæsarian Section for Contracted Pelvis... ..	17	1
Radical cure, Umbilical Strangulated ... ..	2	2	Hysterectomy, Total ... ..	18	1
Radical Cure, Ventral ... ..	10	—	Hysterectomy, Sub-Total ... ..	21	1
<b>Total ... ..</b>	<b>14</b>	<b>2</b>	Hysterotomy ... ..	1	—
<b>STOMACH.</b>			Myomectomy ... ..	5	1
Gastrectomy for Gastric Ulcer ... ..	3	1	Oophorectomy and Salpingectomy ... ..	28	—
Gastrectomy for Gastric Carcinoma ... ..	2	1	Ovariotomy ... ..	15	1
Gastrectomy for Duodenal Ulcer ... ..	7	—	Ruptured Tubal Gestation ... ..	12	—
Gastrojejunostomy for Duodenal Ulcer... ..	17	1	Ventrofixation of Uterus ... ..	25	—
Gastrojejunostomy for Gastric Ulcer ... ..	10	3	<b>Total ... ..</b>	<b>142</b>	<b>5</b>
Gastrostomy ... ..	1	—	<b>Total Laparotomies ... ..</b>	<b>610</b>	<b>44</b>
Rammsted's Operation ... ..	3	—	<b>HERNIOTOMIES.</b>		
For perforation of Duodenal Ulcer ... ..	20	1	Radical Cure—Femoral Hernia ... ..	6	—
For perforation of Gastric Ulcer... ..	2	3	Radical Cure—Inguinal Hernia ... ..	101	—
<b>Total ... ..</b>	<b>65</b>	<b>10</b>	For Strangulated Femoral Hernia ... ..	7	1
<b>LARGE INTESTINE.</b>			For Strangulated Inguinal Hernia ... ..	8	2
Cæcostomy ... ..	8	—	<b>Total Herniotomies ... ..</b>	<b>122</b>	<b>3</b>
Cæcostomy, closure of ... ..	1	—	<b>GENITO-URINARY.</b>		
Colostomy ... ..	5	3	Circumcision ... ..	30	—
Colostomy, closure of ... ..	1	—	Colporrhaphy-anterior ... ..	3	—
Resection (for cancer) ... ..	3	1	Craniotomy ... ..	2	—
For Acute Diverticulitis ... ..	2	—	Curettage ... ..	87	—
For Perforation of Carcinoma of Colon... ..	—	1	Cystoscopy and Ureteral Catheterisation ... ..	41	—
<b>Total ... ..</b>	<b>20</b>	<b>5</b>	Cystotomy—supra pubic ... ..	15	3
<b>APPENDIX VERMIFORMS.</b>			Dilatation of Cervix uteri ... ..	2	—
Appendicectomy (acute) ... ..	98	4	Bartholin Cyst ... ..	1	—
Appendix Abscess drained ... ..	5	1	Epididymectomy ... ..	2	—
Appendicectomy (chronic) ... ..	205	1	Episiotomy... ..	2	—
<b>Total ... ..</b>	<b>308</b>	<b>6</b>	Uterine Polypus ... ..	2	—
<b>SMALL INTESTINE.</b>			Forceps Delivery ... ..	31	1
For acute obstruction by adhesions and bands ... ..	6	3	Induction—Premature Labour ... ..	6	—
For acute obstruction by intussusception ... ..	1	1	Nephrectomy ... ..	2	—
Ileocolostomy, chronic obstruction in ileum ... ..	—	2	Nephrolithotomy ... ..	8	1
Ileocolostomy, chronic obstruction in colon ... ..	1	1	Nephrotomy ... ..	1	—
Closure, Fæcal Fistula ... ..	3	—	Orchidectomy ... ..	2	—
<b>Total ... ..</b>	<b>11</b>	<b>7</b>	Pelvic Examination ... ..	18	—
			Perineorrhaphy ... ..	29	—
			Prostatic Version ... ..	14	—
			Prostatectomy—suprapubic ... ..	5	4
			Radical Cure—Hydrocele ... ..	13	—
			Radical Cure—Varicocele ... ..	1	—
			Reconstruction of urethra ... ..	1	—

SURGICAL DEPARTMENT—*continued.*

Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
<b>GENITO-URINARY—<i>continued.</i></b>			<b>EXCISIONS—<i>continued.</i></b>		
Resection—cervix uteri ... ..	8	—	Fibrocystic Disease, Maxilla ... ..	1	—
Resection—cervix vulvæ ... ..	3	—	Foreign Bodies ... ..	3	—
Resection—epithelioma prepuce... ..	1	—	Ganglion ... ..	6	—
For Acute suppurative orchitis ... ..	1	—	Glands, Lymphatic, malignant ... ..	2	—
For Carcinoma cervix uteri—Radon ... ..	4	—	Glands, Tuberculous ... ..	8	—
For extravasation of urine ... ..	4	—	Lipoma ... ..	4	—
For Hypospadias ... ..	2	—	Lymphadenoma of Tongue ... ..	1	—
For Papilloma of Bladder ... ..	—	1	Nævus ... ..	2	—
For Retained products of conception ... ..	61	1	Neuroma ... ..	2	—
For Ulcers of Vagina ... ..	1	—	Papillomata ... ..	1	—
For Undescended Testicle ... ..	10	—	Parotid Tumour ... ..	2	—
For Urethral Caruncle ... ..	8	—	Prepatellar Bursa ... ..	4	—
For Urethral stricture—dilatation ... ..	19	1	Ranula ... ..	1	—
For Urethral stricture—Wheelhouse's operation ... ..	1	—	Rodent Ulcer ... ..	3	—
			Sarcomata of Skin ... ..	2	—
			Scar ... ..	2	—
			Sebaceous Cyst ... ..	11	—
			Varicose Veins ... ..	1	—
Total Genito-Urinary... ..	441	12			
<b>RECTUM.</b>			<b>Total Excisions ... ..</b>		
Sigmoidoscopy ... ..	1	—		83	—
For Carcinoma, Resection ... ..	—	1	<b>AMPUTATIONS.</b>		
For Fissure... ..	7	—	Arm ... ..	1	—
For Fistula ... ..	10	—	Breast (Cancer) ... ..	8	2
For Ischio-rectal abscess ... ..	11	—	Finger ... ..	6	—
For Polypus ... ..	1	—	Hand ... ..	1	—
For Piles ... ..	36	—	Leg ... ..	2	—
For Pruritis ani ... ..	1	—	Supernumerary Digits ... ..	1	—
			Thigh ... ..	3	1
Total Rectum ... ..	67	1	Toe ... ..	7	—
<b>CHEST, EAR, NOSE, AND THROAT.</b>			<b>Total Amputations ... ..</b>		
Diathermy—Cancer of Lip ... ..	1	—		29	3
Exploration, Frontal Sinus ... ..	—	1	<b>BONES AND JOINTS.</b>		
Exploration, Antrum of Highmore ... ..	1	—	Autogenous Bone Graft—mandible ... ..	1	—
Excision Dermoid, Orbit ... ..	1	—	Exploration of Knee ... ..	1	—
Œsophagoscopy ... ..	5	—	Exploration of Hip ... ..	1	—
Laryngoscopy ... ..	1	—	Excision, Baker's Cyst ... ..	2	—
Mastoidectomy ... ..	7	1	Excision, Knee Joint ... ..	1	—
Resection—septum nasi ... ..	8	—	Forcible movements of Joints ... ..	4	—
Resection—Carcinoma uvulæ ... ..	1	—	Osteoclasty... ..	16	—
Sympathectomy, Lerichest ... ..	1	—	Osteotomy ... ..	11	—
Thyroidectomy ... ..	4	2	Plating, Pegging, or Wiring Fractures ... ..	3	1
Tracheotomy ... ..	—	1	Reduction of Fractures ... ..	34	—
Ligature of Thyroid vessels ... ..	1	—	Reduction of Dislocation Hip, congenital ... ..	3	—
For Carcinoma of Œsophagus—Radon ... ..	1	—	Reduction of Dislocation (Semilunar Cartilage Knee) ... ..	4	—
For Carcinoma of Mandible—Radon ... ..	1	—	Reduction of Dislocation, Patella ... ..	1	—
For Carcinoma of Breast—Radon ... ..	2	—	Reduction of Dislocation, Shoulder ... ..	5	—
For Empyema—Chest, Drainage, etc. ... ..	12	1	Reduction of Dislocation, Elbow ... ..	2	—
For Cleft Palate ... ..	2	—	Resection of—		
For Epulis ... ..	2	—	Head of Metatarsal ... ..	1	—
For Excision of Tongue ... ..	2	—	Head of Humerus ... ..	1	—
For Cut Throat ... ..	1	—	Myeloma, Femur ... ..	1	—
For Mastoiditis—acute ... ..	2	1	Protruding, Part of Tibia ... ..	1	—
For Polypus of Ear ... ..	1	—	Exostosis, Os calcis ... ..	1	—
For Stricture of Œsophagus ... ..	1	—	Semilunar cartilage, Knee ... ..	5	—
For Tonsils and Adenoids ... ..	88	—	Rib ... ..	2	—
For Torticollis ... ..	2	—	Removal of Wire or Plate ... ..	1	—
For Tuberculosis, Larynx ... ..	1	—	Sequestrotomy ... ..	4	—
			Trephining—Cerebral Tumour ... ..	—	1
Total Chest, Ears, Nose, and Throat... ..	149	7	Trephining—Gasserian Ganglion ... ..	1	—
<b>EYES.</b>			For Arthritis, septic ... ..	2	—
Excision, Lachrymal Sac ... ..	2	—	For Exostosis ... ..	1	—
Iridectomy ... ..	11	—	For Flat Foot ... ..	1	—
For Cataract ... ..	11	—	For Hallux Valgus ... ..	3	—
For Corneal Ulcer ... ..	3	—	For Hammer Toe ... ..	5	—
For Entropion ... ..	3	—	For Neurosis, Jaw... ..	3	—
For Meibomian Cyst ... ..	1	—	For Osteomyelitis ... ..	2	1
For Squint ... ..	38	—	For Pes Cavus ... ..	4	—
For Stenosis, Lachrymal Duct ... ..	1	—	For Rheumatoid Arthritis ... ..	1	—
			For Talipes Equinus ... ..	4	—
Total Eyes ... ..	70	—	For Tuberculous Hip ... ..	5	—
<b>EXCISIONS.</b>			For Tuberculous Spine ... ..	1	—
Adenoma, Breast ... ..	17	—	For Tuberculous Elbow ... ..	3	—
Adenoma, Thyroid ... ..	1	—	For Tuberculous Tibia ... ..	2	—
Tuberculosis, Breast ... ..	1	—	For Tuberculous Femur ... ..	1	—
Carcinoma of Breast ... ..	2	—			
Chronic Ulcer of Leg ... ..	1	—	<b>Total Bones and Joints ... ..</b>		
Dermoid of Skin ... ..	4	—		145	3
Epithelioma, hip ... ..	1	—			

SURGICAL DEPARTMENT—*continued.*

Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
<b>MISCELLANEOUS.</b>			<b>MISCELLANEOUS—<i>continued.</i></b>		
Abscesses ... ..	49	1	Painful Stump ... ..	1	—
Alcohol into Fifth Nerve ... ..	1	—	Primary Suture of Wounds ... ..	1	—
Avulsion of Nail ... ..	12	—	Resuture Abdominal Wound ... ..	1	—
Blood Transfusion... ..	1	—	Secondary Suture of Wounds ... ..	1	—
Bursitis, suppurating ... ..	4	—	Skin Grafts... ..	1	—
Carbuncle ... ..	9	2	Stitch Abscess ... ..	7	—
Cellulitis ... ..	25	—	Sympathectomy—Femoral Artery ... ..	1	—
Chronic Ulcer, leg ... ..	2	—	Tubercular Sinuses ... ..	1	—
Curetting Tuberculous Glands, neck ... ..	4	—	Tenotomy ... ..	10	—
Dental Extractions ... ..	130	—	Varicose Veins, injection ... ..	6	—
Depuytren's contraction ... ..	2	—	Diathermy for Epithelioma of Ear ... ..	1	—
Fairbank's operation ... ..	1	—	Diathermy for Cancer of Breast ... ..	3	—
Freeing ulnar nerve ... ..	1	—	Diathermy for Rodent Ulcer ... ..	2	—
Hæmorrhage, secondary ... ..	1	—	Diathermy for Lupus ... ..	1	—
Ligature, Brachial Artery ... ..	1	—			
Median nerve freed from adhesions ... ..	1	—	Total Miscellaneous ... ..	325	3
Mammary Abscess ... ..	43	—			
Oxygen into Peritoneum ... ..	1	—	Total Operations ... ..	2041	76

## MATERNITY DEPARTMENT.

The attendances at the Hospital Ante-Natal Clinic numbered :—

New Patients	...	...	...	...	...	875
Others	...	...	...	...	...	2445
Total						3320

In the Maternity Wards there were 789 live births and 69 stillbirths. The proportion of stillbirths was 8.7%, as compared with 9.9% last year and 9.5% in 1928.

There were 6 maternal deaths.

Cæsarian Section was performed on 18 occasions for contracted pelvis.

ABNORMALITIES IN LABOUR.		Number.	Induction of Labour—		Number.
Cause.					
<i>Perineal Lacerations—</i>			Albuminuria	...	3
Forceps	...	24	Eclampsia	...	1
Spontaneous	...	81	Heart Disease	...	1
Episiotomy	...	5	Post Maturity	...	1
<i>Contracted Pelvis.</i>			Previous Difficult Labour	...	4
Cæsarian Section	...	17	Renal Calculus	...	1
Craniotomy	...	3	Small Pelvis	...	22
<i>Forceps Cases—</i>			<i>Cases of Puerperal Sepsis—</i>		
Unreduced occipito posterior	...	4	Transferred	...	8
After coming head	...	3	<i>Cases of Ophthalmia Neonatorum—</i>		
Uterine inertia	...	5	Cured	...	3
Fœtal distress	...	9	Transferred to C3 (discharged thence cured)	...	3
Prolonged second stage	...	11	<i>Infants not Entirely Breast Fed—</i>		
Face presentation	...	2	Mother dead	...	1
Eclampsia	...	4	Spina bifida kept in hospital	...	1
Shoulder presentation	...	1	Mastitis	...	2
<i>Abnormal Presentations—</i>			Refusal of Mother to feed	...	1
Face	...	5	Bronchitis debility	...	1
Breech	...	12	Debility	...	1
Transverse	...	11	Abnormally large nipples—mother unwilling	...	1
Prolapsed Cord	...	8	Sapræmia and mastitis	...	1
Prolapsed Hand	...	7	T.B. (Pulmonary) of Mother	...	1
<i>Abnormalities of Mother—</i>			Cleft Palate	...	1
Uterine Fibroids	...	2	<i>Maternal Deaths—</i>		
Hydramnios	...	5	Acute Lobar Pneumonia, Cardiac failure	...	1
Rigidity of Cervix	...	—	Ante-partum hæmorrhage due to placenta prævia, Cardiac failure	...	1
Retained Placenta	...	17	Eclampsia, forceps delivery. Acute bronchial pneumonia	...	1
Retained Chorion	...	11	Concealed accidental ante-partum hæmorrhage	...	1
Secondary Uterine Inertia (Forceps)	...	5	Cæsarian case in theatre	...	1
<i>Diseases of Mother—</i>			Eclampsia, collapse under G.A.	...	1
Venereal Disease—W.R. x x Positive			<i>Stillbirths—</i>		
G.C. 2	...	15	Ante-partum hæmorrhage due to—		
	W.R. x	8	(a) Placenta Prævia	...	7
	W.R. x	29	(b) Accidental hæmorrhage	...	7
Jaundice	...	—	Asphyxia	...	1
Heart Disease	...	6	Craniotomy	...	3
Phthisis	...	4	Eclampsia in Mother	...	5
Renal Calculus	...	1	Hydrocephalus and Spina Bifida	...	3
Pyelitis	...	5	Breech presentation	...	8
Bronchitis	...	2	Brow (face) presentation	...	1
Pneumonia	...	2	Occipito-posterior (unreduced)	...	1
Epilepsy	...	1	Prolonged Second Stage Forceps	...	3
Phlebitis	...	2	Prolapsed Cord	...	7
Chorea	...	1	Toxic contraction of uterus	...	1
Cystitis	...	1	Attempted forceps delivery before admission	...	1
Puerperal Mania	...	1	Hydramnios specific disease	...	2
<i>Toxaemias—</i>			Albuminuria of Mother	...	2
Eclampsia	...	12	Monster	...	1
Albuminuria	...	26	<i>Haemorrhage—Antepartum—</i>		
<i>Haemorrhage—Antepartum—</i>			Accidental	...	15
Placenta Prævia	...	13	Placenta Prævia	...	13

*Stillbirths—continued*

Cause unknown (7 of these were macerated) ... ..	13
Post maturity ... ..	1
Early rupture of membranes, rigid os ...	1
Early rupture of membranes, small pelvis ... ..	1
Total (of these 15 were macerated) ...	69

*Deaths of Infants within 10 Days of Birth—*

Prematurity ... ..	20
Congenital Heart Disease ... ..	1
Asphyxia Neonatorum ... ..	3
Hydrocephalus (Convulsions) ... ..	1
Atelectasis ... ..	2
Ruptured Liver ... ..	1
Congenital Syphilis ... ..	1
Congenital Pemphigus ... ..	1

*Deaths of Infants within 10 days of Birth—cont.*

Icterus neonatorum ... ..	1
Convulsions, difficult birth ... ..	2
Convulsions, post maturity ... ..	1
Spina bifida, hydrocephalus ... ..	1
Inanition ... ..	3
Feebleness, mother heart case ... ..	1
Total... ..	39

*Cases of Congenital Deformity—*

Cleft Palate ... ..	1
Talipes ... ..	4
Spina bifida and hydrocephalus... ..	3

*Cases of Birth Injury—*

Fracture of Humerus ... ..	1
Facial paralysis ... ..	5
Cephalhæmatoma ... ..	1

## RADIOLOGICAL DEPARTMENT.

During 1930 the following examinations and treatments were effected :— (Last year's figures are given in brackets.)

	1930
Radiological Examinations ... ..	2174 (2212)
Treatments by—	
Deep X-Rays ... ..	152 (114)
Superficial X-Rays ... ..	155 (60)
Diathermy ... ..	26 (25)
Ultra-Violet Rays ... ..	6874 (5023)
Clinical Attendances ... ..	1312 (1212)
Operations under General Anæsthesia ... ..	11 (26)
Operations under Local Anæsthesia ... ..	25 (19)
Dressings for Out-patients ... ..	1604 (555)
Films used ... ..	5859 (5879)

## DEATHS.

There have been 928 deaths in hospital during the year, as compared with 981 in 1929. The relation between the ages of patients and the number of deaths is shown in the subjoined table :—

Years of age	-1	1-2	2-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Number of Deaths ...	90	8	19	19	43	70	78	143	214	185	53	6

## THE CAUSES OF DEATH AT ALL AGES HAVE BEEN :—

Cause.	Number.	Cause.	Number.
Aneurism, Aortic ...	1	Malignant Disease of—	
Anthrax ...	1	Bladder ...	2
Appendicitis, Acute ...	6	Breast ...	7
Arterio-sclerosis ...	11	Colon ...	21
Atelectasis ...	8	Femur ...	2
Atrophy of Liver, Acute ...	1	Glands of Axilla ...	1
Bronchiectasis ...	1	Larynx ...	2
Bronchitis, Acute ...	7	Liver ...	2
Bronchitis, Chronic ...	38	Lung ...	4
Bronchial Asthma ...	5	Mandible ...	2
Broncho-Pneumonia ...	32	Mediastinum ...	2
Burns and Scalds ...	4	Œsophagus ...	4
Cellulitis, Toxæmia ...	2	Ovary ...	2
Cerebral Abscess ...	1	Palate ...	3
Cerebral Hæmorrhage ...	58	Pancreas ...	4
Cerebral Thrombosis ...	11	Penis ...	1
Cerebral Tumour ...	3	Prostate ...	3
Cerebro-spinal Meningitis ...	1	Rectum ...	6
Cholecystitis ...	2	Skin ...	3
Cirrhosis of Liver ...	4	Stomach ...	19
Coal Gas Poisoning (Suicidal) ...	2	Testicle ...	1
Colitis, Ulcerative ...	1	Thigh ...	1
Convulsions ...	1	Thyroid Gland ...	3
Cut Throat, Suicidal ...	1	Tongue ...	1
Cystitis ...	4	Tonsil ...	1
Dermatitis Exfoliativa ...	1	Uterus ...	9
Diabetes Mellitus ...	15	Marasmus ...	12
Disseminated Sclerosis ...	5	Measles ...	1
Diverticulitis, Acute ...	2	Meningitis ...	5
Duodenal Ulcer ...	4	Menorrhagia ...	1
Duodenal Ulcer (Perforated) ...	2	Metrorrhagia ...	1
Dysentery ...	1	Morbus Cordis ...	79
Encephalitis Lethargica ...	1	Nephritis, Acute ...	2
Eclampsia, Pregnancy ...	3	Nephritis, Chronic ...	33
Empyema ...	4	Osteomyelitis, Acute ...	3
Enteritis ...	1	Otitis Media ...	1
Epilepsy ...	1	Ovarian Cyst ...	1
Erysipelas ...	3	Papiloma of Bladder ...	1
Exophthalmic Goitre ...	2	Paralysis Agitans ...	3
Fibroids Uterus ...	3	Paraplegia ...	1
Fracture of—		Peripheral Neuritis ...	1
Femur ...	9	Pernicious Anæmia ...	7
Humerus ...	1	Peritonitis, General ...	1
Ribs ...	1	Placenta Prævia ...	2
Skull ...	3	Pneumonia, Hypostatic ...	10
Spine ...	—	Pneumonia, Lobar ...	43
Tibia and Fibula ...	1	Poisoning, Suicidal ...	6
Gall Stones ...	6	Prematurity ...	29
Gangrene of Leg Senile ...	9	Progressive Muscular Atrophy ...	1
Gangrene of Lung ...	1	Prostatic Hypertrophy ...	13
Gastric Ulcer (Perforated) ...	2	Pulmonary Embolus ...	1
Gastric Ulcer ...	5	Pulmonary Abscess ...	1
Gastro-enteritis ...	6	Pyonephrosis ...	1
Goitre—Toxic ...	1	Pyosalpinx ...	1
G.P.I. ...	1	Rheumatic Fever ...	1
Hæmorrhage after Abortion ...	1	Rheumatoid Arthritis ...	8
Hemiplegia ...	8	Rupture of Bladder ...	1
Hepatic Hæmorrhage, Intracapsular ...	1	Ruptured Ectopic Gestation ...	1
Hydrocephalus ...	1	Scalds ...	—
Hypernephroma ...	1	Senile Decay ...	90
Icterus Gravidarum ...	1	Septicæmia—	
Intestinal Obstruction ...	10	Carbuncle ...	1
Intussusception ...	1	Crytogenic ...	3
Locomotor Ataxy ...	3	Infected Wound ...	2
Lymphadenoma ...	1	Pneumococcal ...	1
		Puerperal ...	12

CAUSES OF DEATH AT ALL AGES—*continued.*

<i>Cause.</i>	<i>Number.</i>	<i>Cause.</i>	<i>Number*</i>
Spinal Bifida ... ..	7	Tuberculosis of—	
Splenic Anæmia ... ..	1	Intestines ... ..	—
Strangulated Umbilical Hernia ... ..	3	Lungs ... ..	66
Strangulated Femoral Hernia ... ..	1	Meninges ... ..	1
Strangulated Inguinal Hernia ... ..	3	Peritoneum ... ..	2
Stricture, urethral ... ..	2	Sacroiliac Joint ... ..	1
Syphilis, acquired ... ..	3	Tarsus ... ..	1
Syphilis, congenital ... ..	2	Tuberculosis, General ... ..	2
Tetanus ... ..	—	Uræmia ... ..	6
Toxæmia—		Volvulus ... ..	2
Pyorrhœa Alveolaris ... ..	2	Whooping Cough ... ..	7
Carbuncle ... ..	1	Total... ..	928

The dental work done is shown in the following table.

## DENTAL DEPARTMENT.

Number of Patients	Extractions		Fillings in Perm. Teeth	Scalings	Dentures etc.	Anaesthetics	Other Operations
	Temporary	Permanent					
219	17	933	—	19	28	76	2

**(B) INFECTIOUS DISEASES HOSPITALS.**

The following table gives a summary of the cases admitted to the infectious diseases hospitals :—

	Leeds Road	North Bierley	Calverley	Thornton	Total
Smallpox ... ..	—	—	—	16	16
Scarlet Fever ... ..	875	158	52	—	1,085
Diphtheria ... ..	271	9	6	—	286
Enteric Fever ... ..	5	—	—	—	5
Cerebro Spinal Fever	4	—	—	—	4
Encephalitis Lethargica	2	—	—	—	2
Erysipelas ... ..	34	—	—	—	34
Chicken Pox ... ..	10	—	—	—	10
Measles ... ..	28	—	—	—	28
Whooping Cough ... ..	20	—	—	—	20
Pneumonia ... ..	4	—	—	—	4
Other Diseases ... ..	51	—	—	5	56
Totals ... ..	1,304	167	58	21	1,550

## CITY HOSPITAL, LEEDS ROAD.

REPORT OF THE MEDICAL SUPERINTENDENT, JAMES T. KITCHIN,  
M.D., D.P.H.

On the 1st January, 1930, there were 132 cases in hospital, and 1,304 cases were admitted during the year, making a total of 1,436 under treatment. Of these, 1,338 were discharged cured or relieved, 43 died, and 98 were in hospital on the 31st December.

The general mortality rate among the cases was therefore 3.30 per cent.

The following tables show details of the nature of the cases :—

TABLE SHOWING NUMBER OF CASES ADMITTED DURING EACH MONTH.

1930	Scarlet Fever			Typhoid Fever			Diphtheria			Other Diseases			Total Admissions		
	M.	F.	Total	M.	F.	Tl.	M.	F.	Total	M.	F.	Total	M.	F.	Total
Jan. ...	57	80	137	—	—	—	25	13	38	7	11	18	89	104	193
Feb. ...	34	44	78	—	—	—	9	9	18	4	8	12	47	61	108
March	41	37	78	—	—	—	9	13	22	9	7	16	59	57	116
April...	32	41	73	—	—	—	12	14	26	4	13	17	48	63	116
May ...	26	20	46	—	—	—	8	9	17	4	8	12	38	37	75
June ...	31	19	50	—	—	—	5	4	9	4	7	11	40	30	70
July ...	37	36	73	—	—	—	4	10	14	—	5	5	41	51	92
August	30	32	62	1	1	2	4	3	7	4	5	9	39	41	80
Sept....	39	28	67	2	—	2	11	17	28	5	6	11	57	51	108
Oct. ...	38	46	84	—	1	1	10	20	30	5	8	13	53	75	128
Nov. ...	29	40	69	—	—	—	10	21	31	4	8	12	43	69	112
Dec. ...	21	37	58	—	—	—	8	23	31	5	12	17	34	72	106
Total...	415	460	875	3	2	5	115	156	271	55	98	153	588	716	1304

SUMMARY.

YEAR.	SMALL-POX.			ENTERIC FEVER.			SCARLET FEVER.			DIPHThERIA.			OTHER DISEASES.			TOTALS.			From 1895 to 1930.	
	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Cases.	Deaths.	Death-rate per 100.	Aggregate No. of days spent in Hospital.	Average No. of days for each Patient.
1895	—	—	—	97	20	20.6	250	16	6.4	—	—	—	28	9	32.14	375	45	12.0	17,331	46.21
1896	—	—	—	77	15	19.4	248	14	5.6	—	—	—	21	6	28.5	346	35	10.1	17,368	50.1
1897	—	—	—	74	11	14.8	226	5	2.21	—	—	—	17	8	47.05	317	24	7.5	14,549	45.8
1898	—	—	—	162	21	12.9	556	7	1.2	—	—	—	42	16	38.09	760	44	5.8	35,112	46.2
1899	—	—	—	131	16	12.2	658	74	4.4	—	—	—	24	11	45.8	1,813	101	5.5	87,024	48.0
1900	—	—	—	175	38	21.7	821	42	5.1	—	—	—	34	6	17.6	1,030	86	8.3	47,998	46.6
1901	—	—	—	137	18	13.1	573	18	3.1	—	—	—	36	12	33.3	746	48	6.4	33,868	45.3
1902	—	—	—	79	14	17.7	571	26	4.5	111	23	20.7	28	6	21.8	789	69	8.7	35,347	44.8
1903	—	—	—	80	13	16.25	467	19	4.06	96	22	22.9	25	6	24.0	668	60	8.9	30,193	45.1
1904	—	—	—	64	17	26.5	550	17	3.09	437	85	19.4	28	5	17.8	1,079	124	11.4	44,454	41.2
1905	—	—	—	85	11	12.9	570	32	5.6	275	37	13.4	24	4	16.6	954	84	8.8	41,403	43.4
1906	—	—	—	121	20	16.52	694	22	3.17	183	14	7.65	15	6	40.0	1,013	62	6.12	42,850	42.3
1907	—	—	—	50	10	20.0	374	12	3.2	141	16	11.34	13	2	15.3	578	40	6.9	23,871	41.3
1908	—	—	—	88	18	20.0	493	9	1.82	177	15	8.47	10	3	30.0	768	45	5.8	32,640	42.5
1909	—	—	—	32	5	15.62	622	13	2.09	175	24	13.71	32	8	25.0	861	50	5.8	35,559	41.3
1910	—	—	—	67	13	19.4	457	9	1.9	209	14	6.6	18	4	22.2	751	40	5.3	30,190	40.2



TABLE SHOWING AGE AND SEX INCIDENCE IN SCARLET FEVER AND DIPHTHERIA.

Age	Scarlet Fever						Diphtheria							
	Males			Females			Males			Females			Total	Fatality Rate per cent.
	Admitted	Died	Total	Admitted	Died	Total	Admitted	Died	Total	Admitted	Died	Total		
Under 1	5	1	6	1	—	1	16.6	8	2	10	1	3	30	
1—2	15	—	25	10	—	10	—	7	1	11	—	1	9.09	
2—3	25	1	42	17	2	3	2.38	10	—	15	—	—	—	
3—4	37	3	69	32	—	3	1.44	10	1	22	—	1	4.5	
4—5	45	—	88	43	1	1	1.13	12	2	24	3	5	20.83	
Total														
under 5	127	5	230	103	3	8	3.47	47	6	82	4	10	12.19	
5—10	173	1	376	193	1	2	.53	47	2	116	3	5	4.3	
10—15	68	1	132	64	—	1	.75	11	1	25	1	2	8.0	
15—20	20	—	49	29	—	—	—	2	—	13	—	—	—	
20—25	7	—	33	26	—	—	—	1	—	5	—	—	—	
25—30	10	—	20	10	—	—	—	3	—	10	—	—	—	
30—35	5	1	20	15	—	1	5.0	3	—	10	—	—	—	
35—40	3	—	8	5	—	—	—	1	—	2	—	—	—	
40—45	2	—	7	5	—	—	—	—	—	2	—	—	—	
45—50	—	—	—	—	—	—	—	—	—	2	—	—	—	
50—55	—	—	—	—	—	—	—	—	—	1	—	—	—	
55—60	—	—	—	—	—	—	—	—	—	1	—	—	—	
60—65	—	—	—	—	—	—	—	—	—	2	1	1	50.0	
Total	415	8	875	460	4	12	1.37	115	9	271	9	18	6.64	

There were 5 cases of Enteric Fever, all of which recovered. The admissions and deaths from other diseases were as follows:—Measles, 28 cases, 3 deaths; Whooping Cough, 20 cases, 3 deaths; Erysipelas, 34 cases, 2 deaths; Cerebro-spinal Fever, 4 cases, 1 death; Pneumonia, 4 cases, 2 deaths; Laryngitis, 1 case, 1 death; Pneumococcal Meningitis, 1 case, 1 death; Encephalitis Lethargica, 2 cases; Tonsillitis, 16 cases; Undulant Fever, 1 case; Bronchitis, 1 case; Influenza, 1 case; Osteomyelitis, 1 case; Chicken Pox, 10 cases; other diseases, 29 cases, all with no deaths.

*Throat, Nose and Ear Cases.* The local authority has treated in hospital for some years operative cases of diseases of the throat, nose and ear occurring among children referred from various clinics. The following is a summary of the cases treated in 1930:—1,057 for tonsils and adenoids, 6 cases of mastoiditis, and 6 various nose cases; 1,069 cases in all.

## VIII.—HOUSING.

(1) *New Houses in 1930.* The average number of new houses certified as fit for human habitation annually during the five years preceding 1916 was 368, and the following statement shows the number so certified each year since then

Year	New Houses	Year	New Houses	Year	New Houses
1916	128	1921	446	1926	2,193
1917	32	1922	466	1927	2,029
1918	38	1923	245	1928	1,894
1919	6	1924	694	1929	920
1920	38	1925	1,509	1930	508
1916-20	48 (average)	1921-25	672 (average)	1926-30	1,509 (average)

The number of new houses built during the past ten years in each Ward and certified as fit for human habitation in accordance with the Bradford Waterworks and Improvement Act, 1871, is shown in the table on the following page.

No houses were under contract at the end of the year, but the Corporation is at the present time developing a site known as Chellow Grange for the erection of 770 houses, which have now been begun.

During the year 210 houses have been completed and occupied, and in addition to these, 230 are in course of erection by private enterprise at the close of the year.

## NEW BUILDINGS.

Showing number of New Buildings certified as fit for habitation in each of the Wards, and in the whole City, during the years 1921-1930.

WARDS	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Allerton ... ..	3	2	4	25	140	585	481	176	172	32
Bolton ... ..	2	2	2	5	58	125	203	388	36	11
Bradford Moor ... ..	152	137	59	193	176	176	110	29	46	24
Clayton .. ..	33	14	12	17	12	53	40	33	38	25
East ... ..	—	—	—	9	14	3	12	—	—	—
East Bowling ... ..	1	—	1	—	3	5	36	8	—	9
Eccleshill ... ..	4	2	21	66	84	180	304	686	173	43
Exchange ... ..	—	—	—	1	—	—	—	1	—	—
Great Horton ... ..	73	244	95	71	84	81	161	88	56	26
Heaton ... ..	5	7	14	15	33	25	32	—	7	16
Idle ... ..	78	8	13	105	106	150	216	87	54	9
Listerhills ... ..	2	—	—	2	—	—	—	—	—	3
Little Horton ... ..	—	2	3	12	17	36	51	45	57	22
Manningham ... ..	3	—	—	10	18	8	15	5	116	144
North ... ..	—	—	—	—	3	—	3	—	—	2
North Bierley East ... ..	1	1	2	58	403	397	134	264	52	14
North Bierley West ... ..	119	60	27	88	213	251	100	74	88	69
South ... ..	1	—	—	—	—	6	—	—	—	—
Thornton ... ..	—	1	2	7	58	134	118	24	2	3
Tong ... ..	—	—	—	2	3	4	2	2	1	1
West ... ..	—	—	—	—	56	1	—	—	—	12
West Bowling ... ..	2	—	2	25	40	26	51	17	60	43
City Total ... ..	479	480	257	711	1521	2246	2069	1927	958	508

(2) *Overcrowding.* Many very serious cases of overcrowding continue to come to the knowledge of the department during the year, but despite the increase in the provision of houses there still remains a great scarcity of housing accommodation, which complicates the position. On the 31st December, 1930, the number of applicants for new houses was approximately 3,832, 849 of whom are living in apartments.

(3) *White Abbey Area Improvement Scheme.* With regard to the scheme all the properties have been acquired, and 77 per cent. of the properties have been demolished. Substitution accommodation has been provided in the 66 tenement dwellings on the Longlands site; 42 houses at Musgrave Road, Eccleshill; 240 houses on the Whetley Lane site; and 40 houses in the White Abbey area.

The photographs following page 123 show the type of property which has been dealt with, also substitution property which has now been completed and occupied on site.

(4) *Housing Act, 1925.* Prosecutions.

Nature of Offence	No. of Cases	Result
Section 12. Reletting houses ordered to be closed.	2	Defendant fined £1 in each case.
Section 13. Recovery of possession of houses subject to Closing Orders.	74	Orders for possession in 39 cases. In the remaining 35 cases possession was obtained prior to date of hearing.

(5) *Housing Act, 1925.* Appeals to the Ministry of Health.

Premises	Nature of Appeal	Result
159 Mount Street, 2, 4, 6 Sutcliffe Street, and 1, 3, 5 Marsden Street.	Notices to execute works 7	Notices confirmed subject to certain modifications. Appellant to pay £5/5/10 costs.
33 Raglan Street.	1	Appeal dismissed. Applicant to pay £4/2/- costs.
16 The Bank, Eccleshill.	Appeal against Closing Order 1	Appeal dismissed. No order made as to costs.
32, 34, 36, 40, 42, 44, 46, 48, 50, 54, 56, 58 Banner St.	Appeal against Demolition Orders. 12	Appeal dismissed. Demolition Orders confirmed. Appellant to pay £5/18/- costs.
12 Green St., East Parade.	1	Decision of Ministry of Health not to hand.

(6) During the year two applications were made by tenants for the inspection of their houses with a view to the issue of a Certificate under the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920, and Rent and Mortgage Interest Restrictions Act, 1923. The dwelling-houses were inspected and a Certificate granted in each case.

## HOUSING STATISTICS, 1930.

Number of new houses erected during the year:—			
(a) Total (including numbers given separately under (b))	...	...	508
(i) By the Local Authority	...	...	210
(ii) By other Local Authorities	...	...	—
(iii) By other bodies and persons	...	...	298
(b) With State assistance under the Housing Acts:—			
(i) By the Local Authority.			
(a) For the purpose of Part II of the Act of 1925	...	...	164
(b) For the purpose of Part III of the Act of 1925	...	...	46
(c) For other purposes	...	...	—
(ii) By other bodies or persons	...	...	—
I. Inspection of dwelling-houses during the year.			
(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	...	7,503
(2) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	1,746
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	98
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	...	...	3,770
II. Remedy of Defects during the year without service of formal Notices.			
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	...	...	725
III. Action under Statutory Powers during the year.			
A. Proceedings under Section 3 of the Housing Act, 1925.			
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	...	...	352
(2) Number of dwelling-houses which were rendered fit after service of formal notices—			
(a) by owners	...	...	368
(b) by Local Authority in default of owners	...	...	61
(3) Number of dwelling-houses in respect of which closing orders became operative in pursuance of declarations by owners of intention to close	...	...	9
B. Proceedings under Public Health Acts.			
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	...	...	1,459
(2) Number of dwelling-houses in which defects were remedied after service of formal notices—			
(a) by owners	...	...	1,417
(b) by Local Authority in default of owners.	...	...	14
C. Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925.			
(1) Number of representations made with a view to the making of closing orders	...	...	51
(2) Number of dwelling-houses in respect of which closing orders were made	...	...	51
(3) Number of dwelling-houses in respect of which closing orders were determined, the dwelling-houses having been rendered fit	...	...	33
(4) Number of dwelling-houses in respect of which demolition orders were made	...	...	88
(5) Number of dwelling-houses demolished in pursuance of demolition orders	...	...	61
D. Proceedings under the Housing Act, 1930.			
(1) Number of dwelling-houses in respect of which notices were served requiring repairs (Sec. 17)	...	...	177
(2) Number of dwelling-houses which were rendered fit			
(a) by owners	...	...	50
(b) by Local Authority in default of owners	...	...	—
(3) Number of representations made with a view to the making of demolition orders	...	...	21
(4) Number of undertakings given in pursuance of Sec. 19 (2)	...	...	11
(5) Number of demolition orders made	...	...	3
IV. Total number of houses owned by the Local Authority			
Number of houses which were erected by the Local Authority during the last two years and held	...	...	6,848
	1929	1930	
(a) Under Part III. of the Housing Act, 1925	258	210	468
(b) Under Part II. of the Housing Act, 1925	116	164	280
(c) Under the Housing (Financial Provisions) Act, 1924	142	46	188

## IX.—MISCELLANEOUS.

**(A) GENERAL DENTAL WORK.**

The procedure carried out under the City of Bradford Health Committee's dental scheme has followed on the lines of previous years and steady progress has been maintained. Under this scheme St. Luke's Hospital has been visited regularly twice a week. Bierley and Grassington Sanatoria have been visited every four or five weeks and the mental institutions have been visited twice a year. During the past year the Committee's dental officer has attended to the patients in the institutions under the control of the Public Assistance Committee. When not visiting the various institutions the dental officer has been in attendance at the Edmund Street Dental Clinic.

A feature of the past year has been the readiness of the patients sent from the Ante-natal Clinics of St. Luke's and Edmund Street to undergo treatment. Whereas in the past there has been a disinclination for this type of patient to undergo treatment, it is now the exception for them to refuse it. They are gradually being educated to realise the importance of being made dentally fit.

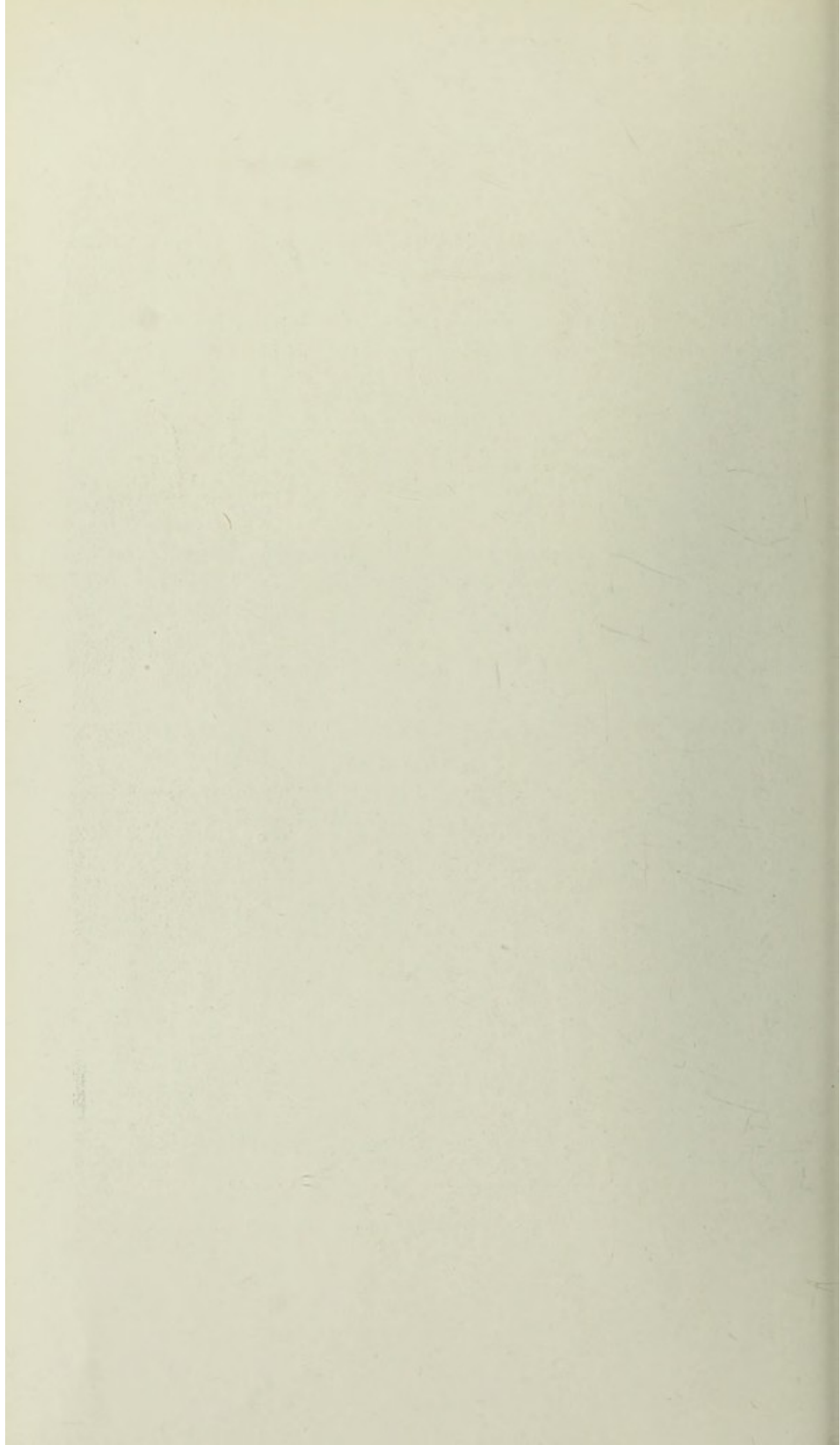
The children of pre-school age continue to attend well. These young folks present a special problem, and a great deal depends on the attitude of the parents as to whether the children attend willingly or in a state of fear. We, on our part, do all we can to reassure them and try to get them to associate a visit to the dentist as being in the nature of a pleasant duty.

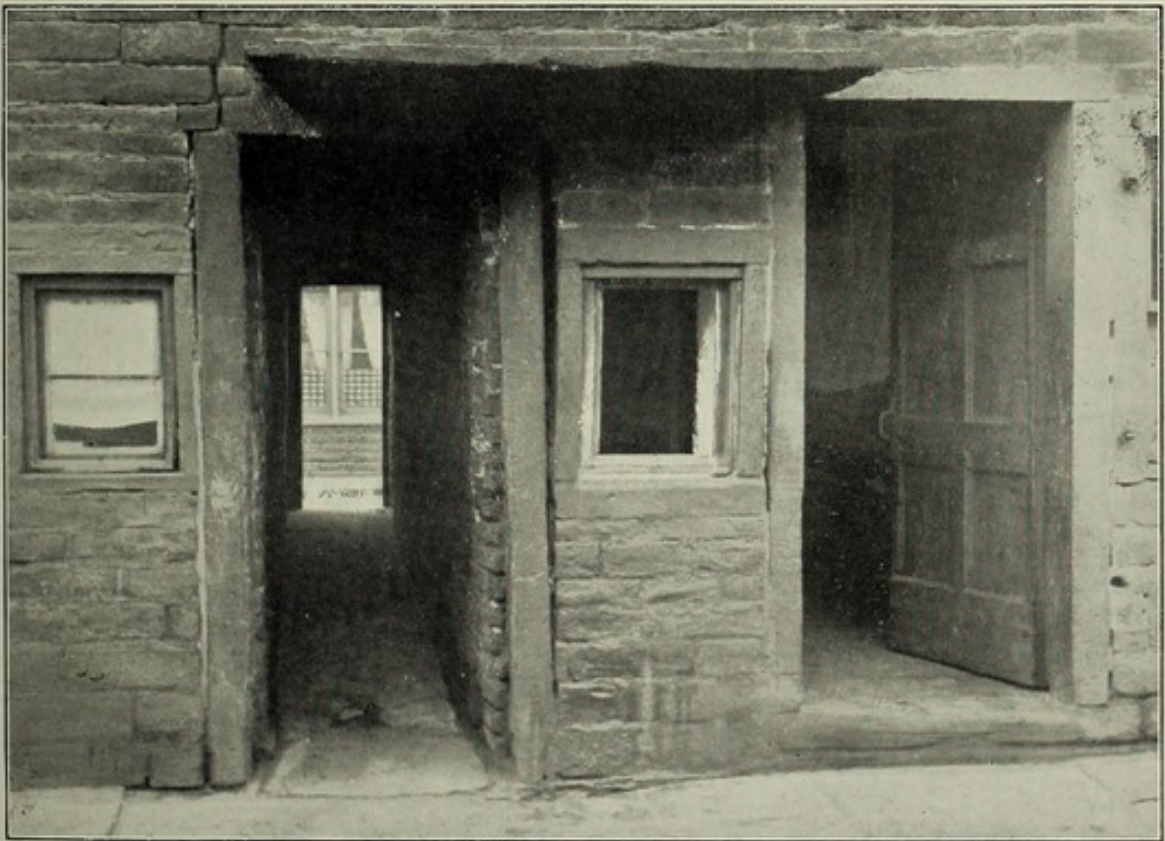
**(B) AMBULANCE WORK AND DISINFECTION.**

The ambulance facilities for the city are as follows :—At the City Fever Hospital there is provided a motor ambulance, which during 1930 removed 1,383 cases to Hospital. At the Municipal General Hospital three motor ambulances are provided, which in addition to removing cases to the General Hospital, also removed cases to Bierley Hall Sanatorium and the voluntary institutions in the city, involving 2,719 journeys, with a mileage of 19,078. The police maintain a motor ambulance for street casualties. Two motor ambulances are maintained for the removal of physically defective children to school and one motor ambulance is maintained at Grassington for the removal thereto of cases of Pulmonary Tuberculosis.

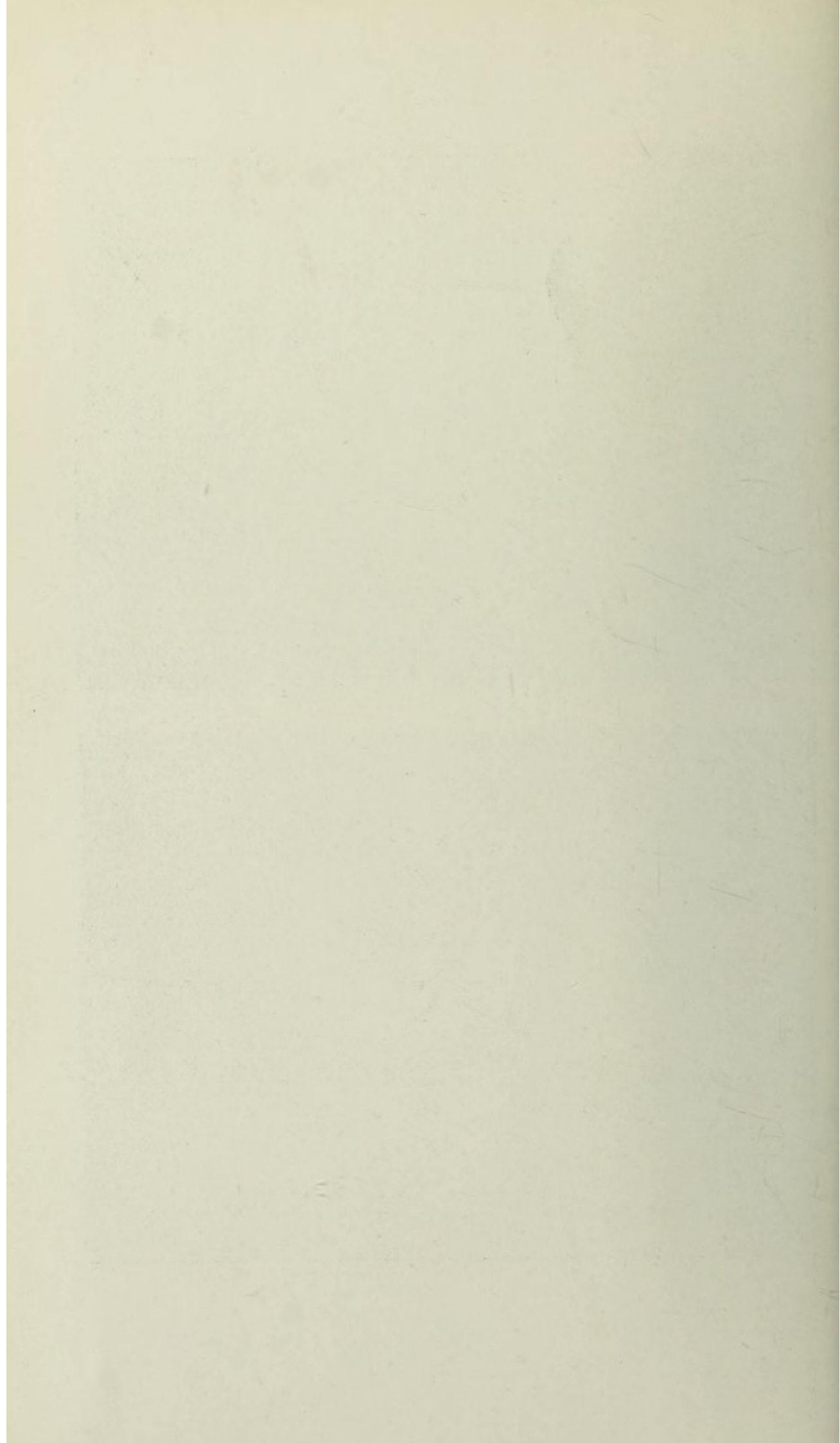


TYPE OF HOUSES IN THE IMPROVEMENT AREA



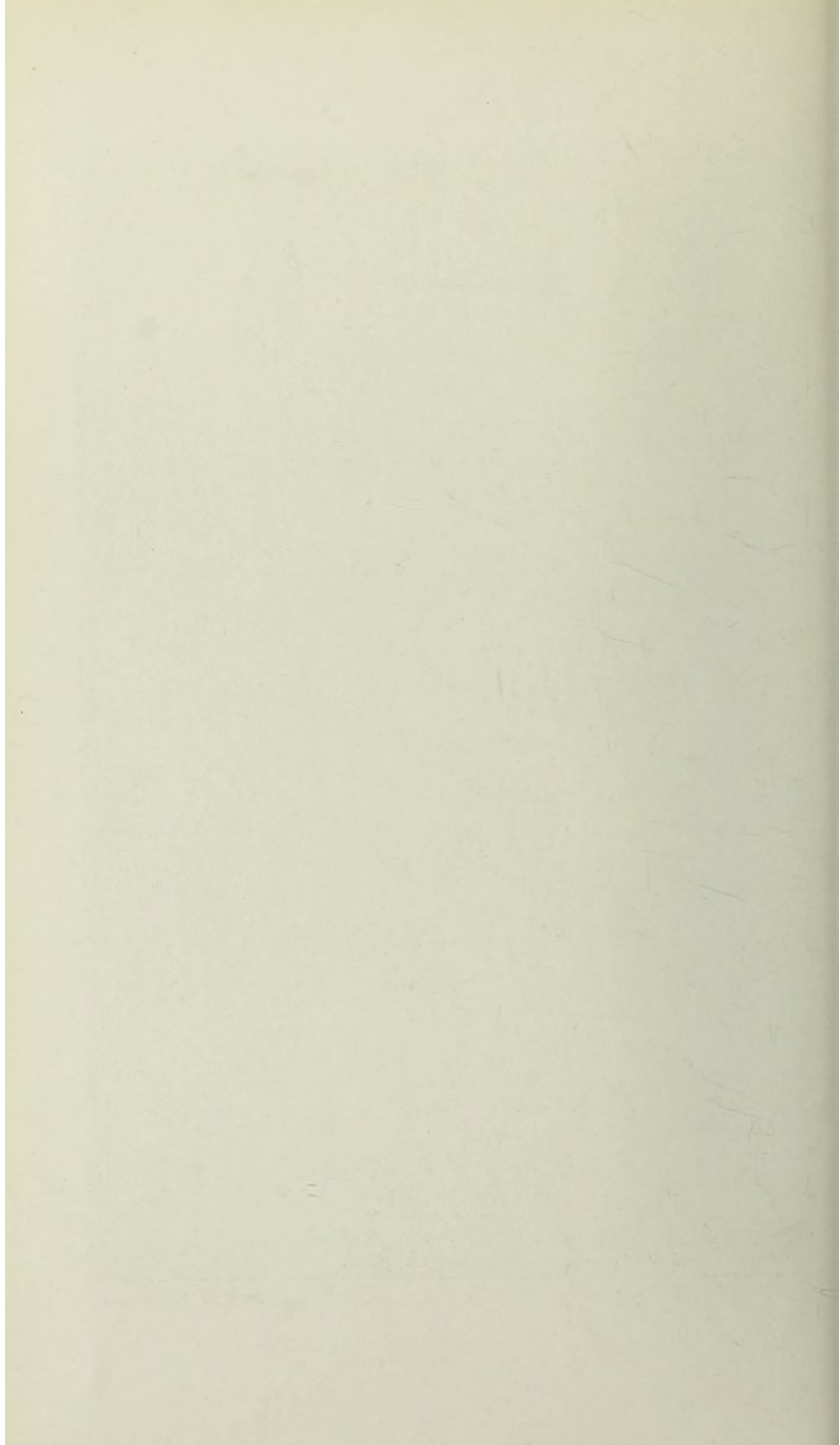


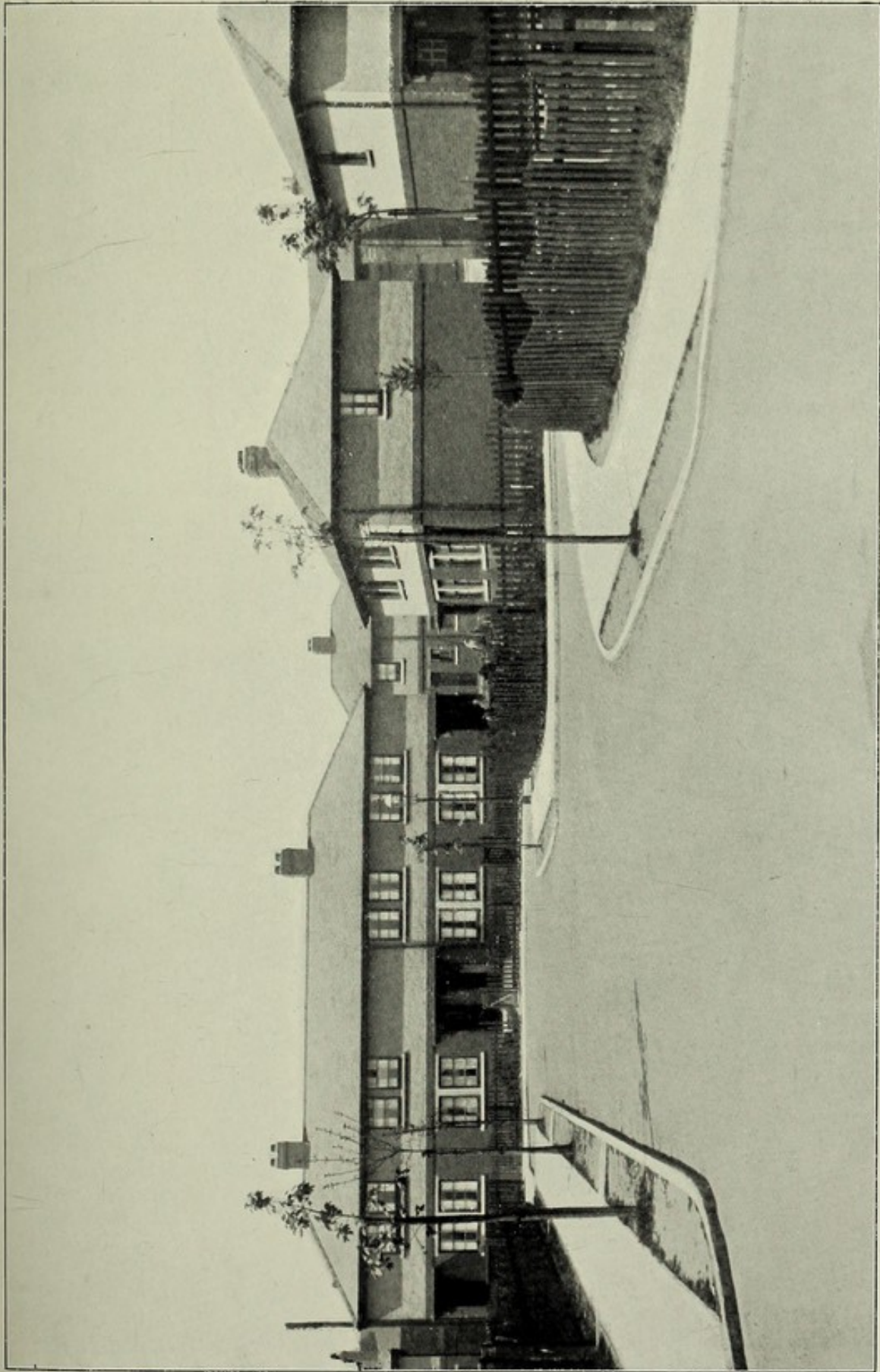
TYPE OF HOUSES IN THE IMPROVEMENT AREA



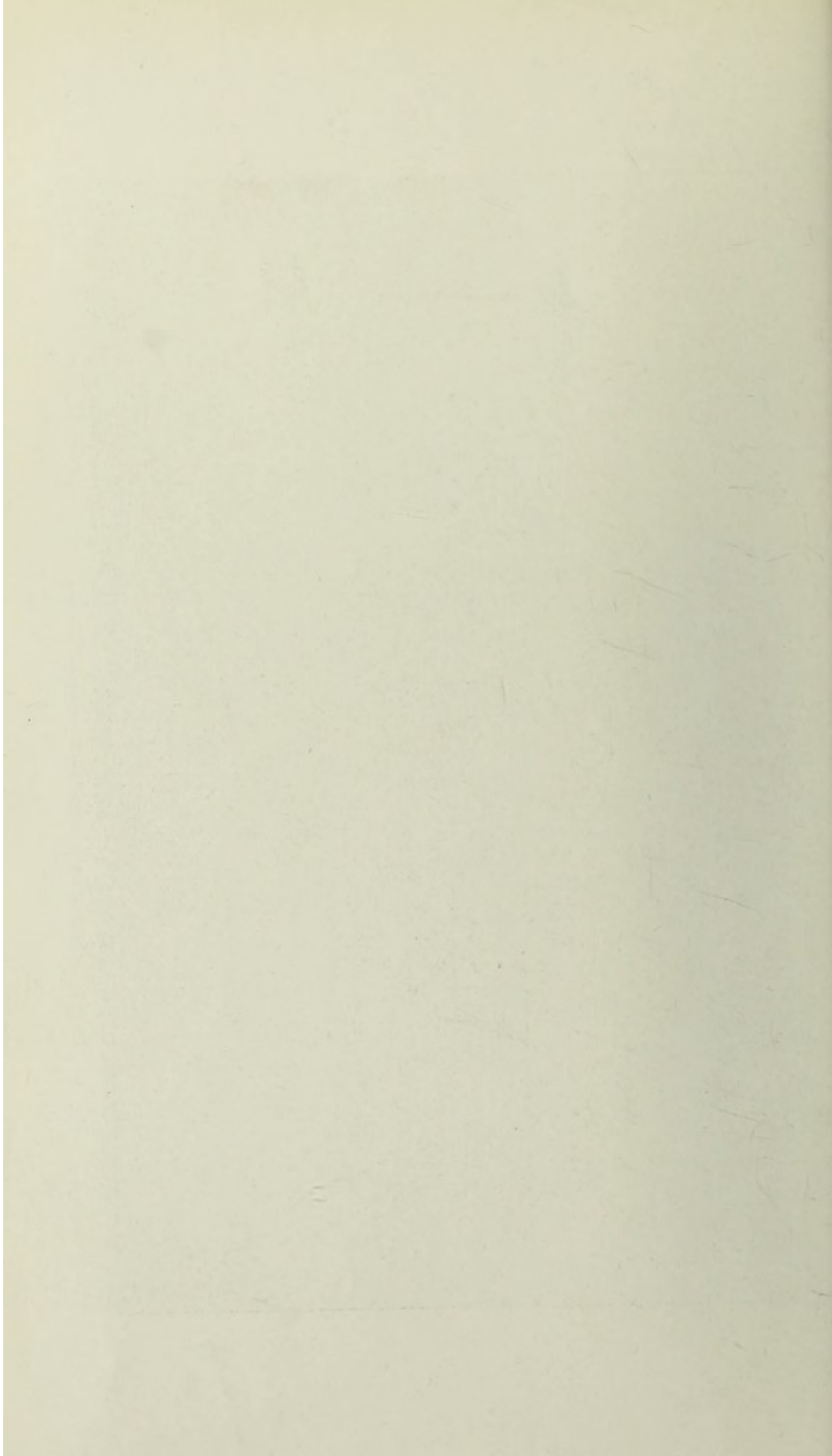


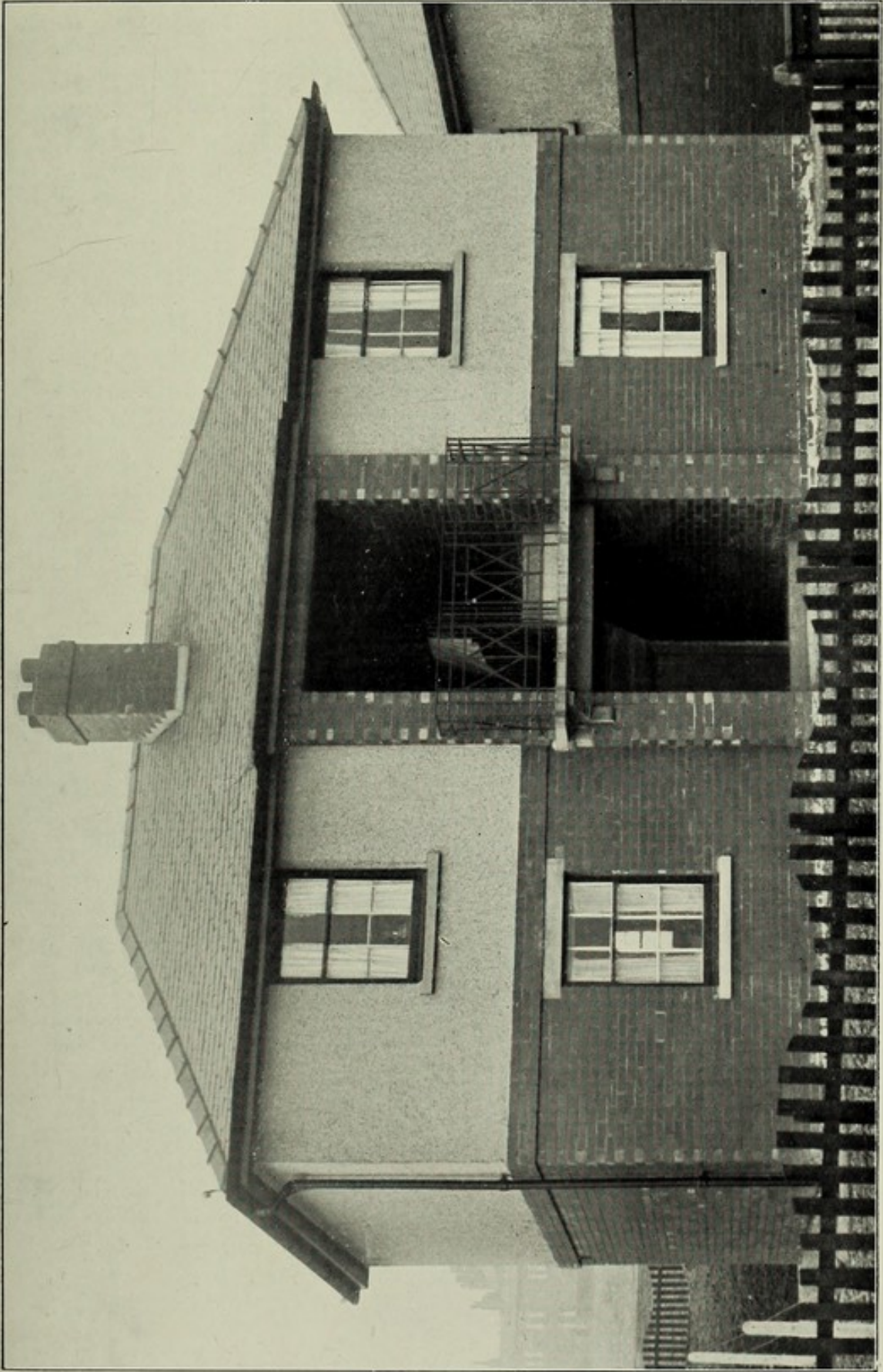
PHOTOGRAPH SHOWING THE DEMOLITION OF HOUSES ON THE SITE



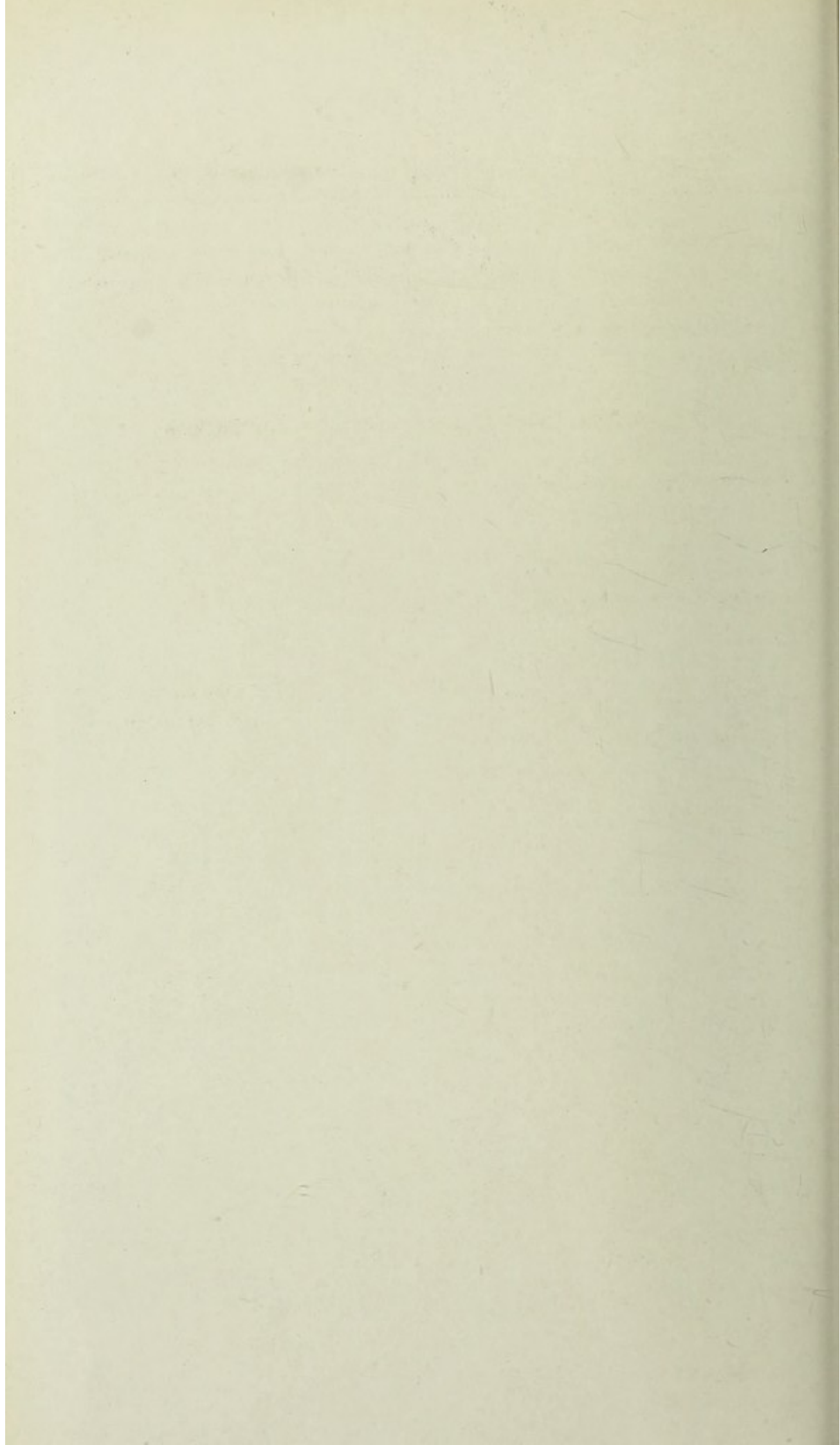


HOUSES COMPLETED AND OCCUPIED ON THE SITE





TENEMENTS, ERECTED ON A SITE ABOUT ONE MILE DISTANT FROM THE CLEARANCE AREA, FOR THE REHOUSING OF AGED PEOPLE



The total number of articles disinfected at the Disinfecting Station, Canal Road, was 11,535, as against 18,074 last year. The number of houses disinfected by the Disinfecting Officer was 1,802, as against 2,223 last year. In addition disinfection was carried out at the request of manufacturers, property owners, and others, for which charges were made amounting to £21 5s. 6d. The revenue from this source last year was £35 12s. 4d.

### (C) PUBLIC MORTUARY AND CREMATORIUM.

During the past year 124 bodies have been deposited and 42 post-mortem examinations made in the Public Mortuary. Since the opening in October, 1910, 1,851 bodies have been deposited.

The remains of 49 persons were cremated during 1930 at the Scholemoor Crematorium, in comparison with 47 during the previous year.

The table on page 127, prepared by the Cremation Society of Great Britain, shows the number of Cremations carried out in Great Britain since the year 1885.

TABLE SHOWING WORK CARRIED OUT AT THE DENTAL CLINIC DURING THE YEAR.

Source	Number of Patients	Number of Patient's Visits	Temporary Teeth Extracted	Temporary Teeth Filled	Permanent Teeth Extracted	Permanent Teeth Filled	Scalings	Dentures Repairs, etc.	Gas, Ether and Chloroform	Other Operations		
										Root Cases	Dressings	Crowns & Regs
St. Luke's Hospital	306	388	17	—	1056	64	30	40	103	6	23	—
Tuberculosis Scheme ...	245	268	75	2	290	53	18	12	29	—	19	—
Maternity	229	549	—	—	1055	30	30	86	126	2	16	—
Infants & young Children ...	468	534	1005	117	22	14	2	20	205	—	10	—
School Children ...	34	54	4	—	5	27	—	16	—	7	7	6
Mental Institutions	72	76	—	—	57	60	39	2	8	—	—	—
Public Assistance	29	67	—	—	102	15	1	14	7	—	—	—
Totals ...	1383	1936	1101	119	2587	263	120	190	478	15	75	6

Table of Cremations carried out in Great Britain since the year 1885.

CREMATORIUM	1885	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	Total
WOKING ...	3326	114	125	128	124	153	125	129	142	181	149	159	193	170	235	271	305	320	344	426	446	7565
MANCHESTER ...	1462	124	149	172	184	165	179	178	197	235	203	228	189	227	251	287	303	357	367	443	442	6342
GLASGOW ...	352	39	44	49	57	63	65	65	74	84	80	87	75	90	87	116	98	129	141	185	121	2088
LIVERPOOL ...	501	50	52	66	48	54	58	62	69	89	69	75	74	62	74	75	96	101	103	103	160	2041
HULL ...	202	25	27	23	16	34	25	24	43	46	30	43	45	45	47	42	55	70	72	72	84	1095
DARLINGTON ...	60	12	15	11	11	16	10	15	17	26	18	20	17	21	28	32	33	38	39	55	52	549
GOLDER'S GREEN	2423	542	591	602	671	730	633	719	820	919	851	893	939	920	1114	1214	1270	1459	1483	1797	1787	22377
LEICESTER ...	103	13	14	11	7	22	23	30	42	36	32	36	23	36	40	57	70	68	61	124	119	968
BIRMINGHAM ...	186	44	40	59	53	45	63	49	64	76	72	78	98	75	97	126	128	150	157	205	180	2045
LEEDS ...	102	17	24	16	28	20	22	17	34	30	26	31	31	27	47	48	40	59	60	66	73	818
ILFORD ...	115	20	32	21	42	45	43	68	70	68	58	57	70	69	68	66	84	95	103	99	112	1406
BRADFORD ...	59	13	9	15	18	12	11	10	20	31	20	24	25	23	24	32	32	50	45	47	49	569
SHEFFIELD ...	69	10	12	15	20	21	14	25	50	41	32	29	38	37	32	48	43	57	41	81	59	784
NORWOOD ...	—	—	—	—	—	30	89	118	153	169	156	162	186	178	240	266	299	279	306	410	390	3432
HENDON PARK...	—	—	—	—	—	—	—	—	—	—	—	—	6	6	7	7	8	11	11	14	12	84
PONTYPRIDD ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	14	13	22	20	28	40	141
BRISTOL ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	71	116	143	330
†IPSWICH ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	37	55	94
*EDINBURGH ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	125	145
*BRIGHTON ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78	78
†GUERNSEY ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
TOTAL ...	8960	1023	1134	1188	1279	1410	1360	1509	1795	2031	1796	1922	2009	1986	2395	2701	2877	3265	3436	4353	4533	52957

\* Opened 13th March, 1930.

† Opened 8th Nov., 1929.

## APPENDIX.

TABLE I.  
VITAL STATISTICS OF WHOLE DISTRICT DURING 1930 AND PREVIOUS YEARS.

YEAR.	Popu- lation estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.				
		Un- corrected Numbers.	NETT.		Number.	Rate.	of Non- registered residents in the District.	of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett. Births.		Number.
1925	290,200	4868	4827	16.63	4039	13.92	186	202	461	95	4055	13.97
1926	288,700	4717	4708	16.31	3884	13.45	164	201	435	92	3921	13.58
1927	293,200	4316	4318	14.73	4218	14.39	193	246	404	94	4271	14.57
1928	288,500	4471	4421	15.32	3875	13.43	192	242	307	69	3925	13.60
1929	289,200	4396	4347	15.03	4516	15.62	215	227	346	80	4528	15.66
1930	293,254	4445	4376	14.92	4073	13.63	233	180	327	75	4020	13.45



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

CAUSES OF DEATH.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS IN PUBLIC INSTITUTIONS.
	All ages.	Under 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
Enteric Fever ...	1	—	—	—	—	—	1	—	—	—
Smallpox ...	—	—	—	—	—	—	—	—	—	—
Measles ...	12	2	4	4	2	—	—	—	—	4
Scarlet Fever ...	18	1	—	7	7	—	2	1	—	12
Whooping Cough ...	48	24	20	4	—	—	—	—	—	11
Diphtheria ...	21	2	1	9	6	—	—	3	—	18
Influenza ...	34	1	1	1	2	1	5	10	13	2
Encephalitis										
Lethargica ...	3	—	—	1	—	—	2	—	—	1
Meningococcal										
Meningitis ...	9	3	1	1	3	—	1	—	—	5
Tuberculosis of respiratory system	226	—	—	1	7	42	82	85	9	118
Other tuberculous diseases ...	39	1	7	4	9	5	8	4	1	21
Cancer, malignant disease ...	480	—	—	—	—	1	31	229	219	146
Rheumatic Fever ...	16	—	—	—	4	4	2	3	3	3
Diabetes ...	36	—	—	—	—	—	4	16	16	13
Cerebral Hæmorrhage &c. ...	297	—	—	—	2	—	11	83	201	73
Heart Disease ...	865	—	—	3	6	5	59	270	522	258
Arterio Sclerosis ...	195	—	—	—	—	—	2	43	150	45
Bronchitis ...	142	9	—	2	—	—	7	30	94	32
Pneumonia (all forms)	266	30	14	11	3	16	30	72	90	102
Other Respiratory diseases ...	38	2	1	3	2	1	7	13	9	16
Ulcer of Stomach or duodenum ...	29	—	—	—	—	—	6	17	6	19
Diarrhœa and Enteritis ...	39	23	5	2	—	1	1	4	3	21
Appendicitis ...	18	—	—	—	5	2	2	4	5	12
Cirrhosis of Liver ...	12	—	—	—	—	—	—	6	6	3
Acute and Chronic Nephritis ...	144	—	—	1	—	3	25	64	51	48
Puerperal Sepsis ...	15	—	—	—	—	1	14	—	—	14
Other accidents and Diseases of pregnancy & parturition	8	—	—	—	—	1	7	—	—	6
Congenital debility and Malformation, premature birth	167	157	2	2	2	3	1	—	—	66
Suicides ...	50	—	—	—	—	2	11	27	10	12
Other Deaths from Violence ...	138	6	2	5	8	16	21	41	39	75
Other defined diseases ...	634	66	9	1	17	18	53	165	305	339
Causes ill-defined or unknown ...	20	—	—	—	—	—	1	13	6	1
All causes ...	4020	327	67	62	85	122	396	1203	1758	1496

TABLE IV.  
 INFANT MORTALITY, 1930. NETT DEATHS FROM STATED CAUSES  
 AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
Smallpox ... ..	—	—	—	—	—	—	—	—	—	—
Chicken-pox ... ..	—	—	—	—	—	—	—	—	—	—
Measles ... ..	—	—	—	—	—	—	—	1	1	2
Scarlet Fever ... ..	—	—	—	—	—	—	—	—	1	1
Whooping Cough ... ..	—	—	—	—	—	7	3	8	6	24
Diphtheria and Croup ... ..	—	—	—	—	—	—	—	1	1	2
Erysipelas ... ..	—	—	—	—	—	—	—	1	—	1
Tuberculous Meningitis ... ..	—	—	—	—	—	—	—	1	—	1
Tuberculosis of Intestines and Peritoneum ... ..	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases ... ..	—	—	—	—	—	—	—	—	—	—
Meningitis ( <i>not Tuberculous</i> ) ... ..	—	1	—	—	1	1	—	—	1	3
Convulsions ... ..	5	5	1	—	11	5	3	2	—	21
Laryngitis ... ..	—	—	—	—	—	—	—	—	—	—
Bronchitis ... ..	—	—	—	—	—	4	3	1	1	9
Pneumonia (all forms) ... ..	1	—	1	1	3	2	8	12	5	30
Diarrhoea and Enteritis ... ..	—	—	1	1	2	6	8	4	3	23
Gastritis ... ..	1	—	—	—	1	—	—	—	2	3
Syphilis ... ..	1	—	—	—	1	1	—	—	—	2
Rickets ... ..	—	—	—	—	—	—	—	—	—	—
Suffocation, overlying ... ..	—	—	—	—	—	2	2	—	—	4
Injury at birth ... ..	8	1	—	—	9	—	—	—	—	9
Atelectasis ... ..	15	—	—	—	15	—	—	—	—	15
Congenital Malformations ... ..	5	4	3	—	12	8	1	1	2	24
Premature Birth ... ..	58	6	9	2	75	10	2	—	—	87
Atrophy, Debility and Marasmus ... ..	15	4	1	3	23	7	5	2	—	37
Other Causes ... ..	8	2	1	—	11	5	4	6	3	29
All Causes ... ..	117	23	17	7	164	58	39	40	26	327

Nett Births in the year—Legitimate, 4117; illegitimate, 259.

Nett Deaths in the year—Legitimate infants, 297; illegitimate infants, 30.



## COMMITTEES

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### HEALTH COMMITTEE.

THE RIGHT HONOURABLE THE LORD MAYOR.

*Chairman*—ALDERMAN H. T. PULLAN.

*Deputy Chairman*—ALDERMAN D. WALKER.

Alderman T. Blythe.	Alderman A. T. Sutton.
„ K. Chambers.	„ M. F. Titterington.
„ W. Donoghue.	„ G. Walker.
„ R. Hill.	Councillor F. V. Butler.
„ S. Horsfall.	„ J. Lennon.
„ G. T. Meggison.	„ C. Raper.
„ A. H. Rhodes.	„ T. J. Robinson.
„ E. Siddle.	„ L. F. W. S. Smith.

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### SPECIAL ELEMENTARY EDUCATION SUB-COMMITTEE *RE* MEDICAL AND NURSERY SCHOOLS.

*Chairman*—COUNCILLOR R. C. RUTH.

Alderman Kathleen Chambers.	Councillor Amy Meggison.
„ W. Hindle.	„ J. T. Waterhouse.
„ H. T. Pullan.	„ H. J. Wilson.
Councillor J. Bailey.	Mrs. G. Smithies.
„ T. I. Clough.	Mrs. W. Leach.
„ H. Drake.	Miss M. Law.
„ F. Egan.	

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### JOINT HEALTH AND EDUCATION (CO-ORDINATION) SUB-COMMITTEE.

*Chairman*—ALDERMAN H. T. PULLAN.

*Deputy Chairman*—ALDERMAN D. WALKER.

Alderman K. Chambers.	Councillor R. C. Ruth.
„ E. Siddle.	„ J. T. Waterhouse.
„ A. T. Sutton.	Mrs. Smithies.





CITY OF BRADFORD

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ANNUAL REPORT  
OF THE  
SCHOOL MEDICAL OFFICER  
1930

2. CO-ORDINATION.—The School Medical Officer is also Medical Officer of Health, and there is, as far as possible, co-operation between all branches of the Medical Staff dealing with childhood. For this purpose there is a joint Health and Education Medical Sub-Committee, which deals with questions referred from the Education Committee.

3. SCHOOL HYGIENE.—On the occasion of each routine inspection of the children at the School the Medical Officer surveys and reports upon the hygienic conditions of the School. In Schools where children have to come from a distance, facilities are provided for the warming of meals brought to School by the children, and where it is necessary arrangements are made for the children to be supervised by a teacher. Tickets for meals, at the Committee's Dining Centres, are obtained by the children in all the schools on payment of full cost, which is only very small. The undermentioned table is an analysis of the hygienic conditions tabulated from the summary sheets which are completed by the Medical Officers at the close of each school inspection:—

ANALYSIS OF SUMMARY SHEETS. Items in Schools reported on	Conditions found	
	Provided Schools Inspected 112	Non-provided Schools Inspected 68
1.—Surroundings:—		
Open ... ..	86	24
Thickly populated ... ..	26	44
2.—Ventilation:—		
Natural, Satisfactory ... ..	73	57
Unsatisfactory ... ..	8	11
Artificial, Satisfactory ... ..	16	—
Unsatisfactory ... ..	15	—
3.—Lighting:—		
Natural, Satisfactory ... ..	111	58
Unsatisfactory ... ..	1	10
Artificial, Satisfactory ... ..	98	51
Unsatisfactory ... ..	14	17
4.—Heating:—		
Satisfactory ... ..	109	64
Unsatisfactory ... ..	3	4
5.—Furniture:—		
(a) Desks: Old-fashioned, Satisfactory ... ..	2	4
Unsatisfactory ... ..	16	40
Modern Desks, Satisfactory... ..	91	22
Unsatisfactory ... ..	3	2
(b) Blackboards: Wall and Easel, Satisfactory	108	59
Unsatisf'ct'ry	4	9
6.—Water Supply:—		
(a) Washing (towels, etc.), Adequate ... ..	108	59
Inadequate ... ..	4	9
(b) Drinking Cups, Sufficient ... ..	109	64
Insufficient ... ..	3	4

7.—Cloakroom:—			
(a) Condition, Satisfactory	... ..	103	47
Unsatisfactory	... ..	9	21
(b) Arrangements for drying clothes etc.			
Present	... ..	39	23
Absent	... ..	73	45
8.—Condition and Cleanliness of Walls and Floors:—			
Satisfactory	... ..	99	58
Unsatisfactory	... ..	13	10
9.—Sanitary Conveniences:—			
(a) Lavatories, Satisfactory	... ..	105	54
Unsatisfactory	... ..	2	11
Satisfactory, but insufficient	... ..	5	3
(b) W.C.'s Trough System, Satisfactory	... ..	51	31
Unsatisfactory	... ..	35	19
Satisfactory, but insufficient	... ..	2	3
Automatic Flush	... ..	5	10
Individual Automatic Flush	... ..	17	5
Pail System, Unsatisfactory	... ..	2	—
(c) Urinals, Satisfactory	... ..	70	43
Satisfactory, but insufficient	... ..	—	—
Unsatisfactory	... ..	13	7
Hand-flushed, Unsatisfactory	... ..	15	14
10.—Playgrounds, Satisfactory	... ..	87	23
Satisfactory, but inadequate	... ..	12	18
Unsatisfactory	... ..	13	27

4. MEDICAL INSPECTION.—(a) During the year 1930, a Routine Medical Inspection was carried out in every school in Bradford. The numbers of children examined in the Code Groups at the Routine Medical Inspections show a decrease of 2,672 from the year 1929, which is accounted for by reason that in 1929 a number of schools were inspected twice, i.e., January and December. The former were arrears from 1928. The children examined under the headings of other Routine Inspections, Secondary Schools and Special Inspections all show increases, which brings the total number of children examined about equal to that of 1929.

The classes of children medically inspected, with the numbers in each class examined, are as follows:—

(1) Children admitted for the first time during the year (Entrants)	... ..	3921
(2) Children 8 years of age (Intermediates)	... ..	3940
(3) Children expected to leave School during the year (Leavers)	... ..	1949
(4) Other Ages	... ..	971
(5) Children attending Council Secondary Schools and Bradford Grammar Schools	... ..	3863
(6) Candidates for Secondary Schools	... ..	1540
(7) Children attending Nursery Schools	... ..	402
(8) Children attending Special Schools	... ..	276
Total	... ..	16,862

- (b) There has been no material departure made from the Board's schedule of inspections.
- (c) Grave defects are in a large number of cases recognised in Bradford before the children arrive at School age through the agency of notification, health visitors, maternity and child-welfare centres and the like. On admission to School all grave defects noted by the School Teachers are notified to the School Medical Officer, and the children examined at once. A census of all children in the City of school age is taken biennially by the School Attendance Officers, and children who have reached five years of age and whose names are not on any School Register for mental or physical reasons, are reported to the School Medical Officer, who has each case either medically examined at the Clinic or obtains satisfactory medical evidence that the child is not fit to attend School. Many of these cases are treated at the School Clinics or Hospitals under the Authority's Scheme.

#### 5. FINDINGS OF MEDICAL INSPECTION :—

CLOTHING AND FOOTGEAR.—Records of the 16,862 children examined at the Routine Medical Inspections during the year show the same percentage of children found to have inadequate or unsuitable clothing as in 1929.

The percentage of those found with inadequate or unsuitable footgear has increased from 0·08 to 0·15.

Code Group	Numbers Inspected	Clothing Inadequate or unsuitable				Footgear Inadequate or unsuitable			
		B	G	T	%	B	G	T	%
Entrants ... ..	3921	1	1	2	0·05	3	2	5	0·13
Intermediates ... ..	3940	2	—	2	0·05	3	8	11	0·28
Leavers ... ..	1949	4	—	4	0·21	5	1	6	0·31
Other Ages... ..	971	—	1	1	0·10	2	—	2	0·21
Special Schools ... ..	276	—	—	—	—	—	—	—	—
Junior Scholarships	1540	—	—	—	—	—	1	1	0·06
Secondary Schools... ..	3863	—	—	—	—	—	—	—	—
Nursery Schools ... ..	402	—	—	—	—	—	—	—	—
Totals ... ..	16862	7	2	9	0·05	13	12	25	0·15

NUTRITION.—The percentage of children found to be suffering from Malnutrition at the Routine Medical Inspection during 1930 gives an increase of 2·57 over the number found in 1929, 8·08 having been

found below normal in 1930, as against 5·51 per cent. in 1929, and 5·22 per cent. in 1928. At the Special Inspections held at the School Clinics, 354 Elementary and 16 Secondary School children were found to be suffering from this condition, against 220 Elementary and 18 Secondary in the year 1929. The following Table records the findings of the School Medical Officers at the Routine Inspections:—

Code Group	Numbers Inspected	Boys				Girls			
		Above Normal	Normal	Below Normal	Emaciated	Above Normal	Normal	Below Normal	Emaciated
Entrants ...	3921	215	1611	165	—	229	1542	159	—
Intermediates ...	3940	291	1514	174	—	309	1474	177	1
Leavers ...	1949	176	730	85	1	241	634	82	—
Other Ages...	971	53	375	59	—	61	364	59	—
Special Schools ...	276	19	92	17	—	27	89	32	—
Junior Scholarships	1540	109	560	112	—	110	584	65	—
Secondary Schools...	3863	554	1430	97	—	130	1628	24	—
Nursery Schools ...	402	14	155	22	—	15	165	31	—
Totals ...	16862	1431	6467	731	1	1122	6480	629	1

(a) UNCLEANLINESS.—It is again gratifying to note that the gradual improvement which has taken place for a number of years in the cleanliness of children has been maintained. The following table of Routine Inspections records that out of 16,862 children inspected, only 10 boys and 89 girls were found to have uncleanliness of head, 0·59 per cent., and 40 boys and 23 girls uncleanliness of body, 0·37 per cent. The percentages for the six years previously were as follows:—

1929 Head 0·60, Body 0·31.	1926 Head 2·01, Body 1·62
1928 „ 0·72, „ 0·34.	1925 „ 3·48, „ 2·37
1927 „ 0·92, „ 0·54.	1924 „ 4·21, „ 2·69

Code Group	Numbers Inspected	Head				Body			
		B	G	T	%	B	G	T	%
Entrants ...	3921	3	23	26	0·66	9	9	18	0·46
Intermediates ...	3940	5	32	37	0·94	14	5	19	0·48
Leavers ...	1949	1	10	11	0·56	10	5	15	0·77
Other Ages ...	971	1	5	6	0·62	3	2	5	0·51
Special Schools ...	276	—	16	16	5·80	2	1	3	1·09
Junior Scholarships	1540	—	2	2	0·13	1	1	2	0·13
Secondary Schools	3863	—	—	—	—	—	—	—	—
Nursery Schools ...	402	—	1	1	0·25	1	—	1	0·25
Totals ...	16862	10	89	99	0·59	40	23	63	0·37

(b) MINOR AILMENTS.—It will be seen from Table IV, Group 1, that 10,322 defects in Elementary School children and 368 defects in Secondary School children were treated at the School Clinics during 1930, against 9,014 Elementary and 286 Secondary in 1929, an increase of 1,308 Elementary and 82 Secondary.

(c) TONSILS AND ADENOIDS.—At the Routine Inspections 2,269 Elementary and 308 Secondary School children were found to have enlarged Tonsils and Adenoids, of whom 1,145 Elementary and 108 Secondary were referred for treatment. At the Special Inspections held at the School Clinics, 401 Elementary and 40 Secondary School children were found, of whom 320 and 35 respectively were referred for treatment. These figures vary from those of 1929 as follows:—Routine Inspections, Elementary, a decrease of 103 children found; Secondary, an increase of 17. During the year 927 Elementary and 27 Secondary School children received operative treatment for tonsils and adenoids under this Authority's Scheme. The figures for 1929 were 917 Elementary and 21 Secondary, which records an increase of 10 Elementary and 6 Secondary.

In addition to the above-mentioned, 7 Elementary School children received other operations to Nose and Throat under this Authority, and 23 Elementary School children received operative treatment by private practitioners or at hospital.

It is interesting to note the advantage taken by the parents of this Authority's Scheme for Nose and Throat operations. Out of a total of 984 children who are recorded to have received operations, 961 were done by this Authority and 23 by private practitioners or at hospital.

(d) TUBERCULOSIS.—27 Elementary and 2 Secondary School children were found at the Routine Inspections to be suspected of Pulmonary Tuberculosis. At the Special Inspections held at the School Clinics, 82 Elementary and 1 Secondary were so found.

The above-mentioned figures total 112, against 96 in 1929, 115 in 1928 and 128 in 1927. Children suspected to be suffering from Tuberculosis are referred to the Anti-Tuberculosis Centre, where a special clinic is held each Friday at 1-30 p.m. These cases are generally admitted to Grassington Sanatorium School, of which particulars will be found in paragraph 17, Section 6, pages 46 and 47.

There were 13 Elementary and 1 Secondary School cases of Non-Pulmonary Tuberculosis found at the Routine Inspections, 11 of which were referred for treatment. From the Special Inspections at the School Clinics, 63 Elementary and 1 Secondary School cases were found; 54 of them being referred for treatment and 10 for observation only. These figures record a decrease of 14 Elementary found at the Routine Inspections. At the Special Inspection there was an increase of 4 Elementary and a decrease of 1 Secondary.

(e) SKIN DISEASE.—At the Routine Inspections 359 Elementary and 135 Secondary School children were found with skin disease; 317 Elementary and 114 Secondary were referred for treatment, whilst 42 Elementary and 21 Secondary required to be kept under observation.

At the Special Inspections 2,304 Elementary and 40 Secondary School children were found; 2,302 Elementary required treatment and 2 observation only, whilst all the Secondary School cases required treatment.

Particulars as to the diseases from which these children suffered will be found in Table II, and those treated in Table IV, Group 1.

(f) EXTERNAL EYE DISEASE.—101 Elementary and 7 Secondary School children were found at the Routine Inspections to be suffering from this disease, whilst 755 Elementary and 24 Secondary School children were discovered at the Special Inspections at the Clinics. These figures show a net increase of 311 over those of last year.

It will also be found in paragraph 7*b* that 440 of these defects were discovered in Schools by the Nurses, most of which come under the heading of Special Inspections at the School Clinics. A good number of these cases are also referred to the School Clinics by School Attendance Officers and Teachers.

(g) VISION.—It will be noticed from Table II that 871 Elementary and 417 Secondary School children were found at the Routine Inspections to require treatment for defective vision, not including 120 Elementary and 5 Secondary who required treatment for squint. At the Special Inspections, 1,943 Elementary and 203 Secondary were referred for treatment of vision.

The figures for the Routine Inspections show a decrease of 197 Elementary and an increase of 59 Secondary; those for Special Inspections show decreases of 31 Elementary and 57 Secondary children.

The reason for the numbers under the heading of Special Inspections being so much larger than those found at the Routine Inspections is that the vision of all Elementary School Children who do not come within the Code Groups for Medical Inspections is tested annually at the Schools by the Nurses, and if they cannot read the Snellen's Test at 6/12 they are referred to the School Clinic for a further test by the Medical Officer.

(h) EAR DISEASE AND HEARING.—From the Routine Inspections 181 Elementary and 30 Secondary School children were found to be suffering from ear diseases or defective hearing, of whom 138 Elementary and 23 Secondary were referred for treatment, and 43 Elementary and 7 Secondary placed under observation. At the Special Inspections 692 Elementary and 22 Secondary School children were found, of whom 685 Elementary and 21 Secondary were referred for treatment, and 7 Elementary and 1 Secondary placed under observation.

The figures from Routine Inspections are very similar to those found in 1929; those for Special Inspections record increases 68 Elementary and 7 Secondary.

As in the case of External Eye Disease, most of the Special Cases found in the Schools by the Nurses are referred to the School Clinics; this accounts for the small numbers found at the Routine Inspections.

(i) DENTAL DEFECTS.—In addition to the annual inspection carried out by the School Dentists, the Doctors make an examination of each child's mouth at Routine Inspections. The numbers of children so found with dental defects during the past three years are shown in the appended tables :—

1930	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	8630	2099	301	2
Girls ...	8232	2236	293	3
Totals ...	16862	4335	594	5

1929	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	9537	1195	334	8
Girls ...	9285	2396	337	9
Totals ...	18910	4691	671	17

1928	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys ...	8503	1896	569	13
Girls ...	8148	1901	398	2
Totals ...	16651	3797	967	15

(j) CRIPPLING DEFECTS.—At the Routine Inspections during the year 1930, 71 Elementary and 7 Secondary School children were found to require treatment; and 76 Elementary, along with 5 Secondary School children, were required to be kept under observation on account of Organic Heart Disease. There were also 11 Elementary and 1 Secondary School children referred for treatment, and 4 Elementary and 2 Secondary for observation from Special Inspections.

The afore-mentioned figures vary from those of 1929 as follows:— Routine Inspections, Elementary, increases of 5 referred, 10 observation; Secondary, an increase of 4 referred and a decrease of 9 observation; Special Inspection, Elementary, decreases of 5 referred, 26 observation; Secondary, increases of 1 referred and 1 observation.

From the Routine Inspections in Elementary Schools, 11 children were referred for treatment and 7 required to be kept under observation who were suffering from Epilepsy. From the Special Inspections, 1 Elementary School Child was referred for treatment, and 17 to be kept under observation; these figures total 31, against 42 in the year 1929. There were no Secondary School children found to be suffering from Epilepsy in 1929 or in 1930.

The number of cases found at the Routine and Special Inspections of children suffering from Crippling Defects caused by Rickets, Spinal Curvature and other forms which are not mentioned above, for the last four years are shown in the following table:—

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	For Treatment	For Observation	For Treatment	For Observation	For Treatment	For Observation	For Treatment	For Observation
1930 :—								
Deformities :—								
Rickets ... ..	66	86	10	7	—	17	—	—
Spinal Curvature	193	35	40	2	51	32	18	2
Other Forms ...	110	168	73	31	115	100	—	1
1929 :—								
Deformities :—								
Rickets ... ..	80	53	47	9	3	14	1	1
Spinal Curvature	252	48	90	7	50	22	30	3
Other Forms	169	167	52	25	111	102	—	1
1928 :—								
Deformities :—								
Rickets ... ..	66	59	23	11	5	11	2	—
Spinal Curvature	280	84	86	3	72	11	2	3
Other Forms ...	179	150	51	27	91	100	—	4
1927 :—								
Deformities :—								
Rickets ... ..	71	66	23	16	5	19	1	—
Spinal Curvature	238	76	67	8	43	42	18	2
Other Forms ...	159	153	99	31	73	160	—	4

6. INFECTIOUS DISEASES.—The exclusion of children suffering from or in contact with persons suffering from infectious disease for prescribed periods has been carefully carried out, and frequent additional visits to the Schools have been made by the Medical Staff on this account.

Notifiable Infectious Diseases are all notified to the Medical Officer of Health by Assistant School Medical Officers and Private Practitioners. All cases notified to the Medical Officer of Health are visited by the Health Visitors, or Sanitary Inspectors, who give advice to parents and guardians of children respecting the care of the patients and the welfare of those in contact with the disease, and take steps, in cases necessary, for removal of the children to hospital. The Health Visitor also issues a notice excluding the patient and those in contact from attendance at School. During the year 3,500 exclusion notices were issued by the Health Visitors, a decrease of 1,156 from 1929.

In cases visited by the Sanitary Inspectors on account of Scarlet Fever, Small-Pox, or other fevers, exclusion notices are also issued by the Medical Officer of Health for children suffering or children who may have been in contact with those suffering from the disease. 2,883 notices were issued by the Medical Officer of Health. This figure records an increase of 1,671 from 1929.

During the year 28 Infants' Schools were granted certificates of exemption in accordance with the Board of Education's Code of Regulations for periods aggregating to 100 weeks, compared with 49 Infants' Schools and 131 weeks during the year 1929.

It was found necessary to close one Junior and one Infants' School, from 28th October to 7th November on account of Scarlet Fever and one Mixed Primary and Infants' School from 22nd September to 1st October on account of Diphtheria.

The diseases for which certificates of exemption were granted and the number of Schools infected, often with more than one disease, were as follows:—

Disease	No. of Infants' Schools Infected.			
	1930	1929	1928	1927
Measles ... ..	19	35	6	45
Chicken-Pox ... ..	10	27	6	14
Mumps ... ..	1	23	1	1
Whooping Cough ... ..	18	19	4	13
Influenza ... ..	2	31	2	32
Scarlet Fever ... ..	3	22	6	2
Diphtheria ... ..	3	6	1	4
Small-Pox ... ..	—	—	1	1

7. FOLLOWING UP.—When a child is found in School presenting a physical defect, the parents or guardians are informed by circular and recommended to consult a Medical Practitioner without delay, or take the child to the School Clinic on the following Wednesday or Saturday morning, when arrangements will be made for treatment. At the Medical Inspections of school children a list of defects is also recorded, from which necessary appointments for treatment are made. This list is afterwards kept for the purpose of following up the cases, keeping cases under observation, and recording the result and date of treatment. The result of the treatment is afterwards entered on the Medical Schedules, and Record Cards at the School Clinic.

Systematic re-inspection and home visitation is undertaken by the Nurses to follow up all cases.

The records taken from the Nurses weekly duty sheets show an increase over 1929 of 245 more visits to schools, 43,088 more examinations in Schools and a decrease of 464 visits to homes. The result of more frequent examinations has increased the numbers of children found to be suffering from the defects mentioned below.

(a) RECORD OF VISITS FOR 1930.

(1) Visits to Schools	...	...	...	3142
(2) Children examined	...	...	...	190233
(3) Visits to Homes	...	...	...	2516

(b) DEFECTS DISCOVERED.

(1) Malnutrition	...	...	153	(7) Sore Eyes	...	...	440
(2) Uncleanliness (Head)	7255			(8) Defective Vision	...	...	223
(3) Uncleanliness (Body)	1033			(9) Squint	...	...	177
(4) Ringworm	...	...	45	(10) Running Ears	...	...	388
(5) Scabies	...	...	49	(11) Infectious Diseases	...	...	4
(6) Impetigo	...	...	1152	(12) Other Conditions	...	...	3565

8. MEDICAL TREATMENT.—There are now four School Clinics in Bradford, a Central Clinic at 28a, Manor Row, and Branch Clinics at Green Lane, Lapage Street, and 20, Edmund Street. Under the co-ordination of medical work, arrangements have been made for the treatment of certain defects at places mentioned below :—

(a) Minor Ailments ... School Clinics.

(b) Tonsils and Adenoids Special Hospital, Leeds Road.

(c) Tuberculosis ... ... Anti-Tuberculosis Centre and Grassington Sanatorium.

(d) Skin Disease ... ... School Clinics.

(e) External Eye Disease School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).

(f) Vision ... ... School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).

- (g) Ear Disease and  
Hearing ... ... School Clinics and Special Hospital  
(Leeds Road).
- (h) Dental Defects ... Central Clinic.
- (i) Crippling Defects and  
Orthopædics ... ... Central School Clinic, School for Physi-  
cally Defectives, Lister Lane and  
Municipal General Hospital (St.  
Luke's).
- (j) Ultra Violet Rays for  
Marasmus, Rickets,  
Anæmia, and Skin  
Diseases ... ... Central School Clinic.

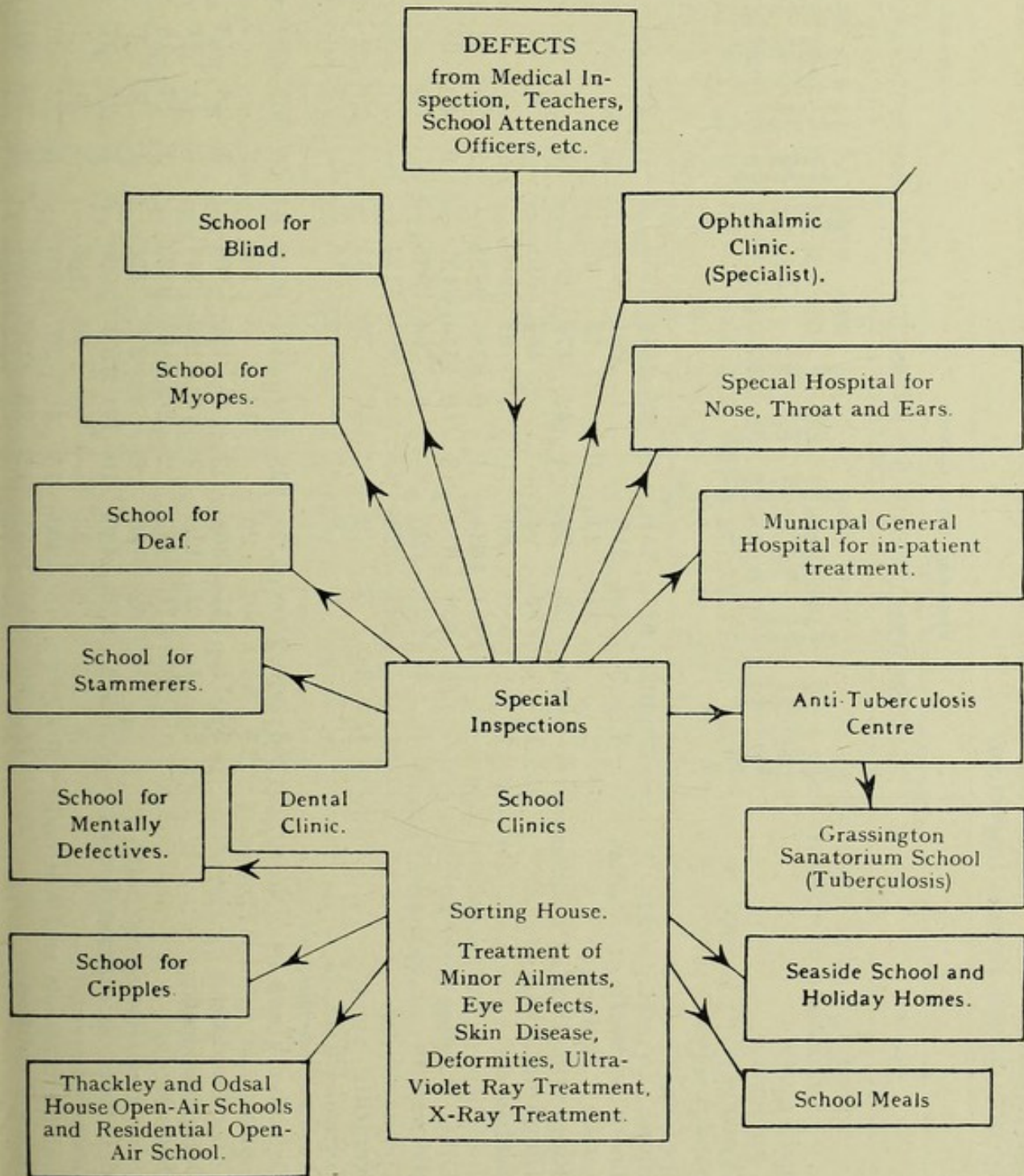
The cases of defects that have attended the School Clinics since 1908 are shewn in the following table :—

Year	Treated	Examined only on first attendance	Total Attendances	Attendances per week
1908	841	590	4050	122
1909	2323	1325	14516	329
1910	3520	2772	19315	439
1911	5019	2655	20325	462
1912	6279	3095	25579	581
1913	8004	4333	34940	791
1914	13991	4155	46982	1068
1915	12469	2769	43346	985
1916	14559	3552	38051	865
1917	12890	3056	44289	1006
1918	9954	3164	35256	801
1919	16459	4177	44876	1019
1920	22114	5894	61565	1502
1921	25460	6364	75209	1791
1922	23718	4158	71663	1706
1923	20255	4811	71646	1706
1924	23013	6176	76476	1821
*1925	37850	7327	88111	2050
*1926	35007	9352	91477	2178
*1927	34180	8279	99449	2368
*1928	33031	9517	94080	2240
*1929	37613	9937	110333	2627
*1930	31961	7431	123514	2941

\* Includes Dental Cases which were not included in first two columns in previous years. This of course duplicates many of the cases as children often come for both Medical and Dental treatment during the same year.

DIAGRAM ILLUSTRATING HOW THE VARIOUS DEFECTS ARE REFERRED AND TREATED UNDER THIS AUTHORITY'S SCHEME.

MEDICAL INSPECTION IN SCHOOLS.



The following table records the attendances at the School Clinics during 1930 and includes cases referred from School Medical Inspection.

Defects or Diseases	Elementary School Children										Secondary School Children					
	New Cases					Old Cases					New Cases			Old Cases		
	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances New Cases	To be kept under observation	Referred for treatment	Examined and treated	Total Attendances Old Cases
Malnutrition ...	22	102	627	751	7	32	2449	3239	2	—	28	30	—	—	—	69
Uncleanliness :—Head ...	3	3	210	216	—	1	201	418	—	—	1	1	—	—	—	1
Body ...	2	—	31	33	1	—	15	49	—	—	—	—	—	—	—	1
Skin :—Ringworm, Head	—	36	63	99	4	42	476	683	—	1	1	2	—	—	—	13
Ringworm, Body	1	—	93	94	—	—	467	561	—	—	4	4	—	—	16	20
Scabies ...	1	2	186	189	—	4	767	960	—	—	—	—	—	—	1	1
Impetigo ...	—	—	1434	1434	1	6	8384	9825	—	1	20	21	—	—	108	129
Other Diseases (Non-Tub.)	—	15	658	673	3	10	1444	2130	—	9	59	68	—	2	435	506
Eye :—Blepharitis ...	—	4	221	225	—	6	704	935	—	—	5	5	—	—	6	12
Conjunctivitis ...	1	—	227	228	—	2	894	1124	—	—	7	7	—	1	5	14
Keratitis ...	1	3	5	9	2	—	30	41	—	—	—	—	—	—	—	—
Corneal Ulcers ...	—	—	8	8	1	—	6	15	—	—	2	2	—	—	27	29
Corneal Opacities	—	1	—	1	—	—	—	1	—	—	—	—	—	—	—	—
Defective Vision	206	561	2506	3273	223	931	5571	9998	34	54	502	590	43	52	906	1591
Squint ...	11	45	40	96	—	14	53	163	—	2	—	2	—	—	—	2
Other Conditions	6	11	337	354	3	5	439	801	1	2	16	19	1	1	21	42
Ear :—Defective Hearing	2	15	101	118	4	6	189	317	—	—	11	11	—	—	12	23
Otitis Media ...	3	13	471	487	2	26	8868	9383	—	1	17	18	1	1	203	223
Other Ear Diseases	5	13	162	180	6	8	242	436	1	1	4	6	1	1	5	13
Nose and Throat :—Enlarged Tonsils	32	172	256	460	10	74	1356	1900	5	5	27	37	2	4	263	306
Adenoids ...	3	22	8	33	—	8	95	136	—	—	1	1	—	—	2	4
Enlarged Tonsils and Adenoids	49	209	45	303	15	76	207	601	—	3	3	6	—	2	21	29
Other Conditions	11	80	940	1031	12	26	4192	5261	—	3	38	41	1	3	155	200
Breathing Exercises	—	6	507	513	—	1	1271	1785	—	—	32	32	—	—	103	135
Enlarged Cervical Glands (Non-Tub.)	7	49	467	523	4	21	768	1316	—	2	15	17	—	—	9	26

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Defective Speech ... ..	15	3	4	22	1	1	5	29	1	—	—	1	—	—	—	1
Heart and Circulation :—																
Heart Disease :—Organic...	4	6	16	26	5	3	8	42	2	—	—	1	3	—	—	4
Functional	48	18	11	77	31	4	27	139	6	—	—	2	8	5	1	14
Anæmia ... ..	54	251	763	1068	48	90	4204	5410	6	5	5	46	57	2	3	294
Lungs :—Bronchitis ... ..	11	100	527	638	8	52	1181	1879	—	2	8	10	—	—	37	47
Other Non-T.B. Diseases ...	16	86	838	940	21	23	1052	2036	2	2	13	17	2	1	49	69
Tuberculosis :—Pulmonary Definite ...	1	—	—	1	18	3	1	23	—	—	—	—	—	—	—	—
Pulmonary Suspected	12	42	30	84	18	33	31	166	1	—	—	1	2	—	—	3
Non-Pulmonary :																
Glands ... ..	1	16	7	24	2	8	59	93	—	—	—	—	—	—	—	—
Spine ... ..	—	—	3	3	—	—	—	3	—	—	—	—	—	—	—	—
Hip ... ..	4	2	5	11	—	—	1	12	—	—	—	—	—	—	—	—
Other Bones and Joints	—	2	7	9	1	—	137	147	—	1	—	1	—	—	—	1
Skin ... ..	1	—	2	3	—	1	22	26	—	—	—	—	—	—	—	—
Other Forms ... ..	3	11	7	21	2	2	7	32	—	—	—	—	—	—	—	—
Nervous System :—Epilepsy ... ..	17	5	3	25	13	3	3	44	—	—	—	—	—	—	—	—
Chorea ... ..	42	53	79	174	59	31	385	649	2	—	1	3	—	1	21	25
Other Conditions ... ..	33	43	69	145	30	8	269	452	3	1	1	5	1	—	2	8
Deformities :—Rickets ... ..	7	50	20	47	4	1	217	269	—	—	—	—	—	—	—	—
Spinal Curvature ... ..	6	35	162	203	—	—	2606	2809	2	8	29	39	—	—	420	459
Other Forms ... ..	33	67	91	191	14	26	1449	1680	1	14	12	27	1	2	218	248
Mental Condition ... ..	170	11	27	208	33	4	34	279	—	—	—	—	—	—	—	—
Infectious Diseases ... ..	35	32	111	178	5	4	20	207	2	—	1	3	—	2	2	7
Other Defects and Diseases ... ..	174	692	1712	2578	354	277	2994	6203	6	37	79	122	17	12	196	347
Minor Ailments ... ..	4	61	6120	6185	9	32	20632	26858	2	10	198	210	4	—	686	900
No Defect Found ... ..	653	—	—	653	—	—	—	653	45	—	—	45	—	—	—	45
Teeth :—Cases treated by appointment	—	—	5667	5667	—	—	1040	6707	—	—	682	682	—	—	323	1005
Emergency Cases (Casuals) ...	—	—	4288	4288	—	—	848	5136	—	—	422	422	—	—	184	606
Totals ... ..	1710	2918	30174	34802	974	1905	76320	114061	124	164	2288	2576	85	90	4721	7472

In addition to the attendances recorded in the preceding table, the following Medical Inspections were conducted at the School Clinics :

(1) Children examined as to their suitability for admission to Secondary Schools	...	...	...	...	...	1540	—
(2) Re Bursarships	...	...	...	...	...	—	30
(3) From School of Art (Routine Medical Inspection)						—	112

The following table shows the examinations made in connection with Special Schools, transference to Convalescent Homes, employment of children and continued attendance at Secondary Schools. These have been analysed under the defects found or no defect found and are all included in the previous table.

Object of Examination	Number of Children	Total Attendances
Transference to Special Schools :—		
Mentally Defective	156	163
Blind, Deaf and Cripple	146	147
Stammerers' Class	3	3
Thackley and Odsal House Open-Air Schools	809	810
Transference to Convalescent Homes	598	672
Transference to Institutions	6	6
Continued attendance at Infants', Secondary and Special Schools :—		
Infants' Schools	3	3
Secondary Schools	32	33
Carlton Special Class	11	12
Myope School	37	37
Open-Air Schools (Thackley and Odsal House)	49	49
Lister Lane School for Physically Defectives	39	39
Margaret McMillan School for Mentally Defectives...	8	8
Odsal House Deaf School	3	3
Nursery Schools	9	9
Employment at Theatres...	70	83
Street Trading Licences	8	8
Totals	1987	2085

Of the 598 children examined *re* transference to Convalescent Homes:—

465 were for Craig Home, Morecambe.

22 for the Bradford Cinderella Club's Home, Morecambe.

1 for the Bradford Dyers' Association, Ltd., Convalescent Home,

103 for the Charity Organisation Society.

7 for the Bradford Victoria Children's Convalescent Fund.

## EXCLUSIONS FROM SCHOOL.

During the year 16,257 exclusion notices have been issued from the following centres, compared with 15,025 in 1929, 13,501 in 1928, 10,642 in 1927, and 9,366 in 1926.

	1930	1929	1928	1927
Central School Clinic ... ..	3081	3031	3029	3070
Green Lane School Clinic ... ..	1324	998	2243	1042
Lapage Street School Clinic ... ..	2894	3158	2339	2159
Edmund Street School Clinic ... ..	1364	926	—	—
Health Visitors, Edmund Street ... ..	3500	4656	865	2583
Special Hospital, Leeds Road ... ..	846	853	503	837
Anti-Tuberculosis Centre ... ..	322	142	152	136
Lister Lane School for Physically Defectives ... ..	42	49	35	40
Health Department ... ..	2883	1212	4335	775
Dental Department ... ..	1	—	—	—
Totals ... ..	16257	15025	13501	10642

## MEDICAL GYMNASTICS AND MASSAGE.

This treatment is carried out at the Central School Clinic and Lister Lane School for Physically Defectives.

The following tables give the number referred and the number treated at the Central School Clinic:—

Cases treated and discharged cured ... ..	584
Cases treated and discharged improved ... ..	39
Cases treated and referred to Lister Lane School for Physically Defectives for completion ... ..	12
Cases treated who left School (over age) before treatment was completed ... ..	6
Cases withdrawn from treatment by parents before completion ... ..	28
Cases treated and carried forward to 1930 for continued treatment ... ..	44
Total number of cases referred ... ..	713
Total number of attendances ... ..	6379

*Boys*      *Girls*      *Total*

Classification of the 713 cases treated :—

Disease	Number	Disease	Number
Scoliosis ... ..	101	Paralysis ... ..	27
Kyphosis ... ..	105	Recent Injuries ... ..	51
Chest Deformities ... ..	11	Post Tonsillectomy Cases ... ..	379
Foot Deformities .. ..	34	Rheumatism ... ..	2
Torticollis ... ..	3		

## TINEA (RINGWORM) OF THE HEAD AND X-RAY TREATMENT.

From the year 1911 when the X-Ray apparatus was installed at the School Clinic to the year 1930 (excepting 1929 when there was a very slight increase) decreases in the number of children found to be suffering from Ringworm of the Head have been recorded in these reports. The figures for 1930 are 101 compared with 127 in 1929, 108 in 1928 and 165 in 1927.

Of the 99 Elementary and 2 Secondary School cases reported in Tables II and IV, Group 1, 65 received X-Ray treatment, and the average length of time from commencement of treatment until re-admission to school was 22.03 days, compared with 21.7 in 1929, 20.9 in 1928 and 22.78 in 1927.

All the children were re-inspected about six months after treatment, and full re-growth of the hair occurred in all cases.

## PROVISION OF SPECTACLES.

It will be noticed from Table IV, Group 2, that most of the spectacles were provided by this Authority.

A contract is made by the Education Committee with a local Optician for the supply of spectacles at a reduced rate.

It will also be seen from Table IV, Group 2, that during the year 2337 Elementary and 393 Secondary School children were supplied with spectacles by the Authority, against 2265 Elementary and 324 Secondary in 1929 and 1,739 Elementary and 364 Secondary in 1928.

Of the 2,730 supplied, in 2020 cases the parents paid the full cost to the Authority, 134 pairs were for children at the Myope School, where Spectacles are provided, free of charge, as part of the treatment, and in 441 cases the cost of the spectacles was remitted by the Committee after full enquiry into the family circumstances had been made, while in 22 Cases the Committee remitted part of the cost. In 113 cases the accounts were carried forward to the year 1931.

In addition to these 363 pairs of spectacles were repaired, or in some cases second pairs of spectacles were provided for the Myope School children, and 775 repairs or second pairs for children attending ordinary Elementary and Secondary Schools: of these 498 were paid for by the parents, 235 in which the cost was remitted by the Committee, and 42 cases were carried forward. These make a total of 3,868 pairs of spectacles supplied during the year, against 3,582 supplied in the year 1929.

## ULTRA VIOLET RAYS TREATMENT.

Ultra Violet Rays treatment is given at the Central School Clinic. During the year 1930, 575 children received this treatment; 313 cases were completed, 64 cases were treated but for various reasons failed to complete the course, and 198 cases were carried forward to 1931. Of the 313 cases completed, 115 received other forms of treatment, and 198 cases received sunlight treatment only. A few cases were admitted to Open-Air Schools, and were discharged in consequence before treatment was completed, and are not included in these figures.

A short dose is given at the first attendance, and this is increased gradually to a maximum of five minutes.

The following tables give particulars of treatment and the results.

The undermentioned are special symptoms noted:—

### SUNLIGHT TREATMENT ONLY.

- 1.—Case of anæmia and eczema—had eczema cured.
- 2.—Case of anæmia and otorrhœa—had otorrhœa cured.
- 3.—Case of epilepsy and debility—had no fits whilst under treatment.
- 4.—Case of anæmia and otorrhœa with complication of K.L.B. in aural discharge—had K.L.B. still present in discharge.
- 5.—Two cases of anæmia and alopecia—had faint growth of hair on alopecia spots when discharged.

### SUNLIGHT AND OTHER FORMS OF TREATMENT.

- 1.—Case of chorea—had normal nervous system on discharge.
- 2.—Case of otorrhœa, a K.L.B. carrier—had K.L.B. cleared, but otorrhœa still persisted.
- 3.—Case of otorrhœa, a K.L.B. carrier—had K.L.B. cleared and otorrhœa almost cured.
- 4.—Case of anæmia and chorea—had normal nervous system on discharge.
- 5.—Case of anæmia and otorrhœa—had otorrhœa cleared.

N.B.—Many cases are self-explanatory from the accompanying tables.

CASES TREATED BY ARTIFICIAL SUNLIGHT ALONE.

Defect	Number of Children	Average number of weeks	Minimum number of weeks	Maximum number of weeks	Average number of doses	Number of exposures					Signs of improvement noted by Medical Officer					Result of treatment			
						Minutes					Tempera-ment	Energy	Sleep	Nutrition	Haemo-globin	Condition Cleared	Condition improved		No change
						1	2	3	4	5							Much	Slight	
Anæmia ...	48	11.7	5.5	13.5	23.4	51	60	80	91	844	34	33	30	38	48	8	29	10	1
Anæmia and Bronchial Catarrh	3	12.7	12.0	14.0	25.4	3	4	6	5	58	3	2	3	3	3	—	3	—	—
Anæmia and Bronchitis	7	10.9	8.0	12.0	21.8	7	12	13	14	106	7	7	7	5	7	2	5	—	—
Anæmia and Malnutrition	35	11.6	5.5	15.5	23.2	37	40	52	60	624	24	24	19	33	35	1	24	9	1
Anæmia and Chorea	3	12.7	12.5	13.0	25.4	2	2	4	4	64	2	2	1	3	3	1	2	—	—
Anæmia and Rheumatism	2	12.75	12.5	13.0	25.5	2	3	4	4	38	1	1	1	2	1	—	1	—	—
Anæmia and Enlarged Glands	4	12.5	12.0	13.0	25.0	4	5	6	7	78	4	3	2	2	4	—	2	2	—
Anæmia and Otorrhœa	2	20.5	13.0	28.0	41.0	2	4	4	5	67	2	2	2	1	2	1	—	—	—
Anæmia and Eczema	1	12.5	—	—	25.0	1	1	1	1	21	1	1	1	—	1	—	1	—	—
Anæmia and Psoriasis	1	9.5	—	—	19.0	1	1	1	1	15	1	1	1	—	1	—	1	—	—
Anæmia and Alopecia	4	13.7	12.5	15.5	27.4	4	6	9	9	80	1	2	1	3	4	2	2	—	—
Malnutrition	11	10.5	7.5	13.0	21.0	12	14	19	19	168	10	9	6	9	11	—	9	1	1
Malnutrition and Rickets	4	12.0	10.5	14.0	24.0	5	7	7	9	68	3	2	1	4	4	—	3	1	—
Rickets	3	10.0	7.5	12.5	20.0	3	5	6	6	40	3	3	3	2	3	—	1	2	—
Bronchitis	7	12.5	9.0	17.0	25.0	7	13	15	15	125	7	7	7	5	7	5	2	—	—
Bronchial Catarrh	3	11.7	9.5	13.0	23.4	3	3	5	6	53	2	3	3	2	3	1	2	—	—
Asthma	2	10.7	9.0	12.5	21.5	2	2	2	4	33	2	2	2	1	2	2	—	—	—
Bronchial Asthma	1	12.0	—	—	24.0	1	1	1	1	20	1	1	—	—	1	—	—	—	—
Debility	21	12.3	8.0	21.0	24.6	24	31	42	45	373	18	21	18	16	21	2	17	2	—
Debility and Epilepsy	1	12.5	—	—	25.0	1	2	2	2	18	—	1	1	1	1	—	1	—	—
Chorea	5	12.2	12.0	12.5	24.4	5	5	5	9	98	5	4	5	4	5	2	2	1	—
Chorea and Rheumatism	1	12.5	—	—	25.0	1	1	1	1	21	1	1	1	1	1	—	1	—	—
Rheumatism	5	9.9	5.0	12.5	19.8	5	6	7	10	71	4	4	4	3	5	4	2	—	1
Enlarged Glands (Non-Tub.)	5	11.1	7.0	12.5	22.2	5	7	9	8	82	4	5	4	3	5	2	2	1	—
Mental Deficiency	1	14.0	—	—	28.0	1	1	1	2	23	—	1	—	—	—	—	—	—	1
Other Cond. Nervous System	3	11.8	11.5	12.0	23.6	3	3	4	4	57	3	2	2	2	3	—	3	—	—
Otorrhœa	5	10.3	6.0	12.0	20.6	5	7	7	7	77	4	4	4	5	5	3	1	—	—
Tuberculous Glands	1	12.5	—	—	25.0	1	1	1	1	21	1	1	1	1	1	—	1	—	—
T.B. Bones and Joints	1	36.0	—	—	72.0	1	1	1	1	68	Local T	reat	m'nt	only	1	1	—	—	—
Impetigo	1	11.5	—	—	23.0	1	1	2	2	17	1	1	1	—	1	—	—	—	—
Acne	7	11.2	6.0	13.5	22.4	7	10	10	10	120	2	—	—	5	7	—	1	—	1
Eczæma	2	12.5	12.5	12.5	25.0	3	4	4	4	35	2	—	2	1	2	—	1	—	—

## CASES TREATED BY ARTIFICIAL SUNLIGHT AND OTHER TREATMENT DURING THE SAME PERIOD.

Defect	Number of Children	Average number of weeks	Minimum number of weeks	Maximum number of weeks	Average number of doses	Number of exposures					Signs of improvement noted by Medical Officer					Result of treatment			
						Minutes					Tempera-ment	Energy	Sleep	Nutrition	Haemo-globin	Condition cleared	Condition improved		No change
						1	2	3	4	5							Much	Slight	
Anæmia .. .. .	24	11.4	3.0	14.0	22.8	24	31	34	43	43	15	17	17	18	24	2	19	3	—
Anæmia and Bronchial Catarrh .. .. .	3	10.5	7.0	12.5	21.0	3	5	4	4	47	2	2	1	3	3	—	3	—	—
Anæmia and Bronchitis .. .. .	6	13.5	12.0	17.0	27.0	6	6	7	9	134	5	5	5	5	6	2	4	—	—
Anæmia and Malnutrition .. .. .	23	11.5	5.0	17.5	23.0	27	28	36	38	401	13	13	9	21	22	—	17	5	1
Anæmia and Chorea .. .. .	2	11.5	11.0	12.0	23.0	2	2	3	3	35	1	1	—	—	2	—	2	—	—
Anæmia and Enlarged Glands .. .. .	2	12.0	12.0	12.0	24.0	2	2	2	2	39	1	2	2	2	2	—	2	—	—
Anæmia and Otorrhœa .. .. .	1	11.5	—	—	23.0	1	2	2	2	16	—	—	—	1	1	1	—	—	—
Anæmia and Tachycardia .. .. .	1	11.0	—	—	22.0	1	2	2	2	15	1	1	1	1	1	—	—	—	—
Malnutrition .. .. .	14	11.3	7.0	14.5	22.6	14	18	25	25	232	11	13	11	13	14	—	8	6	—
Malnutrition and Enlgd. Glands .. .. .	2	10.7	9.5	12.0	21.5	3	4	1	5	30	2	2	2	1	2	—	2	—	—
Rickets .. .. .	1	15.0	—	—	30.0	1	2	2	2	23	1	1	1	—	1	—	1	—	—
Rickets and Malnutrition .. .. .	1	14.0	—	—	28.0	1	3	2	2	20	1	—	—	—	1	—	—	—	—
Bronchitis .. .. .	4	12.4	12.0	12.5	24.8	4	4	5	6	80	3	3	3	3	4	1	3	—	—
Bronchial Catarrh .. .. .	2	11.2	10.0	12.5	22.5	2	2	2	2	37	1	1	1	2	2	—	2	—	—
Asthma .. .. .	2	16.2	12.0	20.5	32.5	2	3	6	11	43	2	2	2	2	2	—	1	—	1
Debility .. .. .	13	11.5	9.5	14.0	23.0	14	16	26	26	218	11	10	11	10	13	1	10	2	—
Chorea .. .. .	1	12.0	—	—	24.0	1	1	2	3	17	—	—	—	1	1	1	—	—	—
Rheumatism .. .. .	1	12.0	—	—	24.0	1	2	2	2	17	1	1	1	—	1	1	—	—	—
Enlarged Glands (Non-T.B.) .. .. .	2	11.5	10.5	12.5	23.0	2	2	3	4	35	2	2	1	2	1	2	—	—	—
Other Nerve Conditions .. .. .	4	11.2	10.5	12.5	22.5	4	4	4	6	72	4	3	3	3	4	2	2	—	—
Otorrhœa (with K.L.B.) .. .. .	2	15.2	12.0	19.5	30.5	2	2	2	3	54	1	1	2	2	2	—	2	—	—
Tubercular Glands .. .. .	2	10.0	8.5	11.5	20.0	2	4	4	5	25	1	—	—	1	2	—	1	—	1
Tubercular Skin .. .. .	1	10.5	—	—	21.0	1	2	2	2	14	1	1	1	1	1	1	—	—	—
Menorrhagia .. .. .	1	4.0	—	—	8.0	1	1	1	1	4	—	—	—	—	1	1	—	—	—
Impetigo .. .. .	1	13.0	—	—	26.0	—	4	1	1	20	1	1	1	1	1	1	—	—	—
Acne .. .. .	1	16.0	—	—	32.0	1	1	2	2	26	—	—	—	1	1	—	—	—	—
Eczema .. .. .	1	21.5	—	—	43.0	1	1	1	2	38	1	1	1	1	1	—	1	—	—
Alopecia .. .. .	1	9.0	—	—	18.0	1	1	3	2	11	—	—	—	—	1	—	—	—	—



## DENTAL REPORT.

By H. V. MORRELL, L.D.S., R.F.P.S. (Glasgow).

The School Dental Service has continued to fulfil its functions and there has been a constant demand for its services. During the year 26,802 elementary school children were inspected, of which number 22,157 were routine cases, 4,288 were special cases, i.e. children who voluntarily presented themselves for treatment and advice, and 357 children attending the special schools of the city. Of these 21,589, or 85 per cent. were found to require treatment. The outstanding feature of the year's work has been the progress made in the treatment of Secondary School children, and the surprising manner in which they have responded to treatment; 1,677 Secondary School children were inspected by the Dental Surgeon, of these 1,449 required treatment and 1,104 or 76·2 per cent. actually received treatment at the Clinic, and as a result of following up in the Schools, it was found that 207 children, or 14 per cent., were treated privately when these defects were pointed out to them, thus practically 90 per cent. of these Secondary scholars took active steps to effect treatment. The Secondary children who desired treatment at the Clinic attended 1,611 times as in many cases all the necessary work for these older children cannot be carried out at one sitting, and so we were compelled to make further appointments.

It is gratifying to note that these older children are better able to appreciate the value of dental hygiene, and the alacrity with which they have carried out our suggestions has been very encouraging.

The number of Dental Surgeons engaged in the school service is four, and the work has gone on consistently throughout the year without interruption.

The total number of attendances made by the children for treatment at the Clinic was 13,454, and the operations performed comprised 6,680 metal fillings, 233 silicate fillings, 15 fillings with pulp and root canal treatment, 17,057 extractions of temporary teeth, 4,136 extractions of permanent teeth, 2,260 administrations of nitrous oxide anæsthetics, 752 other operations, i.e., silver nitrate, iodine dressings, etc. All the extractions were treated with anæsthetics, local injections being used for the straightforward cases, nitrous oxide being reserved for the more difficult operations.

The appointments have been well kept during the year; 10,166 appointments were made, only 17 per cent. failed to attend at the last moment, and many of these "failed to attend" appointments presented themselves for treatment later in the year and are included in our figures of "special" cases.

The treatment of "special" cases or casuals has become quite a problem, but when one considers the number of children attending the schools, and the fact that there is not a Dental Hospital in the city, it certainly would be unjust and unfair to penalise a child suffering with toothache or in urgent need of advice, just because it had failed to

attend for treatment at the routine school inspection through the ignorance of the parent or other unfortunate circumstances.

The Dental Surgeons are continually impressing on the parents and children the great importance of oral hygiene and educate whenever opportunity offers in the schools, home, and clinic, as it is our aim that children shall not only leave school with a functional dentition, but also with an acquired habit of keeping their mouths healthy and so eliminating disease in later life.

### SPECIAL OPHTHALMIC CASES.

By W. OLIVER LODGE, M.D., F.R.C.S.

Cases are referred by the School Medical Officers to the Ophthalmic Surgeon at the Ophthalmic Clinic, Edmund Street, each Thursday at 2 p.m. Cases requiring operations or hospital treatment are dealt with at St. Luke's Hospital. The consulting Surgeon also visits, as required, the Myope School.

	<i>Child- ren</i>	<i>Attend- ances</i>
1. Total cases from all sources seen at Special Ophthalmic Clinic ... ..	275	411
2. Total cases referred from School Clinics seen at Special Ophthalmic Clinic ... ..	197	316
(a) Defective Vision and Squint ... ..	181	295
(b) External Eye Diseases ... ..	16	21
3. Total cases referred from the Myope School seen at Special Ophthalmic Clinic ... ..	6	10
(a) Defective Vision and Squint ... ..	6	10
(b) External Eye Diseases ... ..	—	—
4. Total cases under 5 years (from Nursery Schools, etc.) seen at Special Ophthalmic Clinic ... ..	72	85
(a) Defective Vision and Squint ... ..	63	73
(b) External Eye Diseases ... ..	9	12
5. In-patients (St. Luke's Hospital) admitted from Special Ophthalmic Clinic ... ..	55	

#### Operations for :—

(a) Cataract .. .. .	3
(b) Strabismus .. .. .	35
(c) Interstitial Keratitis .. .. .	4
(d) Entropion .. .. .	2
(e) Ectropion .. .. .	2
(f) Plastic operation of eyelids .. .. .	1
(g) Keratitis .. .. .	5
(h) Meibomian cyst .. .. .	3

The following questions sometimes arise when children are proceeding, at the age of 11, from the elementary to the secondary schools. When is

interference with education justified by myopia? Is there any alternative? What degree of interference is necessary? Will the result be worth while?

We are not so much concerned about the myopia itself, even though it be progressive, as about the possibility of degenerative complications, or detachment of the retina.

If we apprehend a breakdown of vision before the age of say 45, we ought to do everything in our power to prevent it, but if not, there is no need to deprive a child of a normal education. If previous records of the refraction on a problematical case are lacking, further observation is required to ascertain whether the defect is progressive.

### ORTHOPÆDIC CASES.

By Mr. F. W. GOYDER, M.B., F.R.C.S., Consulting Orthopædic Surgeon.

*Lister Lane School.*—The Orthopædic Surgeon has made 407 examinations of the children at this school during the past year. 347 of these were children previously examined by him and 60 were new cases. Seventy more examinations were made than in 1929, the increase being due to the establishment of the Nursery School.

Seventeen children were sent to St. Luke's Hospital, two being medical cases, four for X-Ray examination only, and eleven for Surgical and Orthopædic treatment. Of the eleven, five were admitted for tuberculous conditions, of whom three had recrudescence of supposedly cured joint disease, one for correction of deformity where disease was cured, and one for a tuberculous brain tumour. Four were admitted for paralytic conditions and two for other deformities.

With regard to the X-Ray examinations, these form an important indication as to the quiescence or otherwise of tuberculous joint lesions, and the reports are one of the criteria necessary before discarding permanently a splint or appliance worn for years.

A good deal of the additional work done this year by the Orthopædic Surgeon has been due to the establishment of the Nursery School. At the present time, out of 220 children only twenty-six are in the Nursery Section, and we could do with many more. The facilities which exist here for regular treatment of these small children are already producing rapid results in the cure of deformity, more rapid than in the same conditions treated at a later age. In addition there has been a well marked and rapid improvement in the general health of the little ones. They are happy and the school is popular not only with the children themselves but also with their parents, as the average attendance 90 to 96 per cent. shows. This is a higher average than obtains in the rest of the school. A good beginning has been made.

### ST. LUKE'S HOSPITAL—OUT-PATIENTS' CLINIC.

The Orthopædic Surgeon sees as Out-patients on Saturday mornings at 10 a.m. children of school age and below referred to him by the School Medical Officers, the Child Clinic, the Tuberculosis Officer, and Medical

Practitioners in the city. He also sees former In-patients and adults, frequently those who have been under his care or that of the Central School Clinic and have since left school. So that the department is of value in following up the later life of those who have been under the care of the Education Committee. From this Clinic he is able to recommend children likely to benefit from Lister Lane School and the Nursery School established in connection with it.

As will be seen from the following table the attendances still continue to increase. 55 children have been referred by the School Medical Officers as against 39 in 1929. 41 have come from the Child Clinic as against 25 last year. The total number of Out-patient attendances excluding adults was 329. There were 238 in 1929. The number of Out-patients seen annually has increased progressively from 28 in 1922 when the Clinic started at St. Luke's to 375, including adults at the present time.

#### ORTHOPÆDIC IN-PATIENTS AT ST. LUKE'S HOSPITAL.

As to the In-patient work three types of cases are dealt with: (1) Chronic tuberculous disease of the spine and larger joints. These remain continuously in Hospital until they become fit to get up and go about in splints. This period may last two or three years. For the benefit of this class the Education Committee provides a teacher. (2) Cases admitted for deformities due to rickets, a large class, though smaller than it used to be. These have a definite period of three months' treatment which includes operation, artificial sunlight during the whole period of their stay, plaster splints for the first six weeks, and massage after, special vitamin containing diet and medicine, and open-air conditions of living. They are not discharged until they are able to walk without appliances. (3) The third and largest class consists of children who are admitted for a short period for special operative procedures. Their after treatment is carried on at the Out-patient and massage departments of St. Luke's or at the Central School Clinic or their Special School in the case of Lister Lane.

The number of operations performed on children in the Bradford area was 92, the same as in 1929, but of these the purely manipulative processes amount to 19, a number less than usual, while the remaining number 73, consisting of major operations is greater than it was last year.

The operations are classified below. The numbers do not exactly correspond with those given above as in some cases two operations have been done on one child.

Operations for deformities due to rickets	..	21
Operations for congenital deformity	..	22
Operations for paralytic deformity	..	9
Operations for tuberculous conditions	..	16
Operations for miscellaneous conditions	..	27
		—
		95

## 9.—OPEN-AIR EDUCATION.—

(a) *Playground Classes.*—The only classes which are regularly held in playgrounds are those for physical training, but in favourable weather other classes are frequently held in the playgrounds.

(b) *School Journeys.*—During the Spring and Summer months children are taken for journeys to the outskirts of the city and given instruction in nature study, botany, etc. Classes are also taken into the Parks and Recreation Grounds for one lesson per week, excepting when the weather is unfavourable.

(c) *School Camps.*—Camp Schools were not re-opened in 1930.

During the summer holidays, five schools, situated in healthy outskirts of the city, were kept open under camp school arrangements, to which children from the poorer districts were invited to attend for organised games, etc. The children were given tram tokens to enable them to travel on the tramways to and from these schools free. They were also supplied with dinners free of cost. There was no registration.

(d) *Open-air Classrooms in Public Elementary Schools.*—Excepting Special and Nursery Schools there are only two Schools in Bradford with Open-air Classrooms ; both being Infants' Departments.

(e) *Day Open-air Schools.*—During the year 1930 the provision of Open-air Schools consisted of one at Thackley for 275 children and Odsal House for 200 children.

The children are selected for Open-air Treatment because of their debilitated condition, by either (a) School Medical Officers or School Nurses when inspecting Schools ; or (b) School Medical Officers at the School Clinics ; or (c) Doctors, Head Teachers, and School Attendance Officers, the final decision in all cases resting with the Chief Assistant School Medical Officer.

Special attention in this matter is given to all children who are attending School irregularly on account of ill-health, or are on the School meals list.

Very urgent cases are admitted a few days after medical examination, others are placed on a waiting list and are admitted in turn as early as circumstances permit. There are three School Terms in the year, ending at Easter, Midsummer Holidays, and Christmas. All children undergo periodical medical examination whilst in attendance at the Open-air School and only at the end of the School Terms are suitable children selected for discharge.

The children and teachers assemble each morning in the centre of the City. Those who live some distance are supplied with checks for travelling in the tram car. The cars which convey the parties to school leave the City at 8-30 a.m. Odsal House School is on the car route, and Thackley School is only a few minutes' walk from the car. This enables the children to arrive there about 9 a.m.

*Medical Supervision.*—The children are under the direct supervision of the School Doctor, who visits the school at least once a week. During his visit he makes an inspection of all the scholars. Each child is weighed once a week. The School Nurse also visits the school one or two half-days per week.

All the schools are open all the year round, excepting a short period at Easter and Christmas.

(1) *Thackley Open-Air School.*—Full particulars of this school, which has been in existence since 1908, have been given in previous reports. The accommodation is 275.

The children who attend this school are of all ages from 6 to 14, and are those which live on the North, North-east and North-west sides of the City. The dietary is as follows:—

#### THACKLEY OPEN AIR SCHOOL—DIETARY.

**BREAKFAST:**—Porridge with milk and treacle; cocoa with bread and margarine.

**DINNER:**—Monday—Boiled or roast meat and vegetables; milk pudding. Tuesday—Vegetable or pulse soup; suet pudding either boiled or steamed. Wednesday—Stewed meat and vegetables, or stewed meat and suet pastry; milk pudding. Thursday—Meat and potato pie; thick rice pudding and stewed fruit. Friday—Fish, steamed, potatoes and sauce; bread and butter pudding, containing dried fruits, or jam roly-poly, or steamed suet puddings.

The Dinner Menu is varied according to seasonable products of the School Garden. Rhubarb (with custard) and rhubarb pies are frequently served as second course, whilst plentiful use is also made of broad beans, peas, lettuce, celery, etc.

**TEA:**—Hot milk is served before leaving school in the afternoon.

This school continues to be conducted along the lines indicated in previous reports. A record is kept of all clinical facts relating to each child, and the height, weight, lung capacity, hæmoglobin content, etc., are also noted.

The following table gives the average increases in height, weight, etc., of the children discharged during the eleven years, 1920-1930 :—

Year	Number of children discharged	Increase in weight (kilos.)	Increase in height (cents)	Increase in hæmoglobin	Increase in chest measurement (ins.)	Average stay in months
1920	177	2.58	5.29	11.33%	0.94	10.5
1921	258	2.20	3.27	9.34%	0.61	7.3
1922	297	2.28	4.78	12.88%	0.37	8.4
1923	257	2.43	4.06	8.04%	1.11	8.7
1924	329	2.48	3.43	14.15%	0.59	7.3
1925	410	2.64	3.46	12.99%	1.02	7.5
1926	415	3.28	3.46	12.43%	1.50	8.4
1927	381	2.81	4.55	10.82%	1.00	9.2
1928	362	2.89	4.36	12.65%	1.20	8.8
1929	414	2.56	3.93	12.77%	0.85	8.7
1930	418	2.52	3.92	14.05%	0.55	9.1

The numbers of children in attendance at the Thackley Open-air School during the year 1930 were as follows :—

		Boys	Girls
Number on register 1st January, 1930	...	158	167
Number admitted during 1930	... ..	182	201
Number discharged during 1930	... ..	199	193
Number on register 31st December, 1930	... ..	141	175
Average number present during the year	... ..	117.6	135.8

(2) *Odsal House Open-Air School*.—Particulars of this school respecting the situation, aspect, area, buildings, etc., were given in the 1927 report.

All meals are cooked on the premises, and the dietary is the same as the one at Thackley. The older boys and girls are taught gardening and domestic handiwork, such as repairing of tools, apparatus for all practical arithmetic and geography, elementary upholstery, repairing of desks and chairs, decorative work, etc.

The accommodation is 200. Particulars as to the number of children in attendance at Odsal House Open-Air School during the year are as follows:—

		Boys	Girls
Number of children on register 1st January, 1930	... ..	105	104
Number admitted during the year	... ..	209	158
Number discharged during the year	... ..	167	174
Number on register 31st December, 1930	... ..	147	88
Average number present during the year	... ..	108.7	81.8

(f) *Residential Open-air School*.—On Tuesday, 4th November, 1930, 20 boys and 20 girls were taken into residence at the Odsal Open-air School in buildings which had previously been used as a Residential School for the Blind and later as the School for the Deaf. The upper rooms are used as dormitories for children and the staff. The domestic staff consists of Matron, Assistant Matron, Cook, and two Maids. The children selected for residence were delicate children from homes which were considered to be overcrowded and generally bad. (The first batch was selected from children who were already in attendance at the School.) The residential record card for each child includes information as to house, type, condition, living rooms, sleeping rooms, number of occupants and number of occupants of child's sleeping room, special comments, e.g. family history, environment, control, etc.

The first batch of children remained in residence for seven weeks which ended at the Christmas vacation, excepting two boys and two girls who on account of their poor physical condition were kept on for a further period. All the children showed signs of great improvement, the chief signs being in hæmoglobin and gain in height and weight. There was also a noteworthy improvement in the general conduct and behaviour of these children.

10. **PHYSICAL TRAINING**.—The period under review embraces a full year's experience of the reorganised Senior Schools. Owing to the presence of specialist teachers—trained by means of intensive courses—the introduction of portable apparatus, a revision of school tables, and some attempt to improve the accommodation for exercise, the work has assumed a more vigorous, effective, and interesting character. Efforts are being made to improve the dress for physical training, and the question of footwear has been successfully attended to. Other types of schools have developed in a like manner, and the progress noted is encouraging. During the year the courses held for men and women teachers in Modern and Primary Departments have been well attended, and have been the means of consolidating the position of Physical Training as a vital health practice. It is proposed to continue such training courses.

The difficult problem of improving the Committee's playing fields has engaged attention, and already the chief groundsman and his staff have more than justified their appointment. The Committee realise that much remains to be done, and their present policy is reacting favourably on the work in organised games. The Parks Committee continue to make splendid provision for a large proportion of the schools.

Out of school activities are still receiving the enthusiastic support of teachers, chiefly through the efforts of the Bradford Schools' Athletic Association. Inter-school and form matches are regularly played in football, netball, cricket, and rounders. In addition, a number of schools have been allocated special periods for swimming instruction out of school hours (including Saturday mornings).

The Women's Games Club has maintained its successful record, and has included in its programme classes in recreative gymnastics and swimming (winter and summer). The gymnastic class for men teachers—which has included swimming—has been held throughout the year.

The Bradford Folk Dance Branch has continued its valuable work, and its classes have been well supported by members of the teaching profession. The Junior Associations formed in the various districts of the city have increased their membership and usefulness, and deserve special mention. A successful Folk Dance Party was held during the year.

11. PROVISION OF MEALS.—(a) The School Medical Officer has continued to co-operate in the work of the Canteen Committee and the provision of school meals, careful attention being given to the dietaries, quality of foodstuffs, the conditions at the Central Cooking Depot and the various dining centres.

(b) Numerous cases have been reported to the Committee of children found during Medical Routine and Clinic Inspections to be suffering from malnutrition, anæmia, etc., and the supply of school meals to these children has been beneficial.

(c) In connection with the Special Services Regulations of the Board of Education referring to arrangements for recording the effect of free meals on the physical and mental condition of the children concerned, head teachers have, throughout the year, examined and reported immediately a child is first provided with free meals at the end of the succeeding fortnight and afterwards at intervals of six months, or on the date on which the child ceases to receive free meals. Particulars of weight and height, under specified conditions, are obtained and the head teacher furnishes a report on the physical and mental condition of the child at such examination.

(d) During the twelve months ended 31st March, 1930, by reason of bad trade and the textile strike, there was a large increase in the number of children provided with meals, 771 more children having been supplied with meals free, and 294 more whose meals were partially paid for. During this period the increase in the number of dinners provided was 193,036, breakfasts 37,367, total increase in meals provided 230,403.

Number of meals provided:—

	Year ended 31st March, 1929	Year ended 31st March, 1930
1.—Dinners:—		
(a) From Green Lane ...	666,410	854,203
(b) By Caterers ...	16,156	21,399
	682,566	875,602

2.—Breakfasts:—			
(a)	From Green Lane ... ..	85,383	111,970
(b)	By Caterers ... ..	76,136	86,916
		161,519	198,886
		844,085	1,074,488
 (e) Total net cost per meal:—			
(a)	Food only ... ..	1·279d.	1·252d.
(b)	Administration only ... ..	1·286d.	1·345d.
		2·566d.	2·597d.
 4 Number of children dealt with:—			
(a)	Total number of individual children who received any meals free ... ..	3,073	3,844
(b)	Total number of individual children whose meals were partially paid for ... ..	438	732
 5 Payment by Parents:—			
(a)	Amounts recovered from parents after prosecution or threatened prosecution ... ..	£ s. d. 7 9 7	£ s. d. 9 2 0
(b)	Amounts received from parents in cases where the full cost has been borne by them voluntarily ... ..	1,463 4 5½	1,731 6 9
(c)	Amounts received from parents in cases where the meals have been partially paid for ... ..	64 11 5½	83 8 0½
6	Amount received from Poor Law Guardians on account of tickets for meals supplied by them to children ... ..	60 10 10	28 7 0

12. SCHOOL BATHS.—Scholars attended for instruction during the year at the school and district baths.

On 1st November, 1930, a scheme of reorganisation was introduced, involving the complete control by the Education Committee of three school baths, a greater use of three semi-school baths, the reservation of morning periods for scholars only at the five district baths, and the appointment by the Education Committee of seven full-time teachers and one part-time teacher, whose duties are solely concerned with swimming instruction.

The benefits accruing from such an arrangement are already apparent, the methods of teaching employed are more interesting and effective, more classes than formerly are in attendance, and there is evidence of a closer link between the school and the work in this subject.

The Baths Committee have shown a generous and helpful attitude towards the new scheme which was only made possible through their willing co-operation.

13. CO-OPERATION OF PARENTS.—Parents are invited to attend the Routine Medical Inspection of their children in both Secondary and Elementary Schools and all medical examinations at the various Clinics.

The presence of the parents affords an opportunity to the Medical Officers for giving advice and explanations about the children's health, also in cases where operations for Tonsils and Adenoids or treatment at any of the Special Departments are recommended by the Medical Officer, the consent of the parent is obtained at the time of the inspection, thus causing no delay in these cases being referred and treated.

There was again a slight increase in the percentage of parents present at the Routine Inspections. From Table VIII at the end of the Report it will be found that 82·2 per cent. of parents were present at the Routine Inspection of boys and 83·7 per cent. present at the Routine Inspection of girls in the group of entrants, against 77·35 and 78·78 in 1929.

The total increase of parents present in all groups was 4·9 per cent.

14. CO-OPERATION OF TEACHERS.—The School Medical Officer is much indebted to the Teachers for the help given at the Routine Inspections, for cases referred to the School Clinics, reporting outbreaks of infectious disease amongst the scholars and sending reports on Special cases to the School Medical Officer. Their support goes far to lighten the work of the Medical Officer. In return, the School Medical Department does everything possible to arrange the School Medical Inspections at such times and periods as will least interfere with the educational work of the School.

The influence of the Head Teachers with the parents helps the attendance of children at the School Clinics for both medical and dental purposes and the teachers' special knowledge of the children and their environment is very helpful to the Nurses in "following up."

15. CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS.—The information gained by the School Attendance Officers in visiting the homes of the children is given to the School Medical Department in all cases where difficulty is obtained in securing the attendance of children at the School Clinics, and is much appreciated; many cases having occurred during the year where three appointments have been made for a child to attend the School Clinic without any result, but in each case the Attendance Officer has finally secured the child's attendance. The medical certificates given by private practitioners, collected by the School Attendance Officers, are all kept at the Central Clinic after particulars have been entered on the Medical Record Cards of the children concerned.

The School Attendance Officers also assist in the collection of accounts outstanding for medical treatment and spectacles supplied to children in cases where the parents have failed to pay at the School Clinics.

16. CO-OPERATION OF VOLUNTARY BODIES.—The help given by the Bradford Cinderella Club in providing children referred to them by the Medical Staff with the necessary clothing and boots, also by sending children to the Ambler Home, Morecambe, has been much appreciated.

The Guild of Help visitors have also assisted the School Medical Service by referring cases to the School Clinics, and by giving information obtained during their visits to homes.

The Charity Organisation Society has also assisted the School Medical Service in helping cases referred to them by the School Medical Officers, and also by sending children to Holiday Homes and Convalescent Homes.

During the year many cases of neglected children have been brought to the notice of the National Society for the Prevention of Cruelty to Children's Inspectors, with beneficial results to the children concerned. The Inspectors have also visited cases where the parents had refused to obtain spectacles prescribed by the School Medical Officers.

#### 17. BLIND, DEAF, DEFECTIVE and EPILEPTIC CHILDREN.

(a) The methods adopted for ascertaining and dealing with children who are defective within the meaning of Part V of the Education Act, 1921, are as follows :—

The majority of cases are found during the Routine Inspections in the Schools and the Special Inspections at the School Clinics. Others are referred by Head Teachers and School Attendance Officers. Whenever a case is found, or referred, a special appointment is made for the child to be medically examined at the Central School Clinic by the Chief Assistant School Medical Officer, who makes all recommendations to the Local Education Authority for admittance to the various Special Schools in the City.

(b) All Mentally Defective Children of School age, not in attendance at Special Schools, are placed under the supervision of a Voluntary Care Committee. The children also attend the School Clinic, at periods named by the Certifying Officer, for re-examination, or are visited at their homes or Elementary Schools by the Medical Officer.

(c) The arrangements made for the after care are carried out by the Local Mental Deficiency Committee. All children who pass through the Special Schools are notified to this Committee under Section 2 (2) (a) or 2 (2) (b) of the Mental Deficiency Act, 1913. This Committee has set up a Voluntary Committee which undertakes the visitation of such persons at regular intervals and the reports of these visitors are presented to the Committee not less than twice in each year.

All blind children reaching 16 years of age are notified to the Blind Persons Act Committee, and are then referred to the Royal Institution for the Blind for Training Courses. All children leaving the Special Schools are visited and kept under the supervision of the Special Schools Sub-Committee.

Each Special School has a House Committee, which is composed of members of the Education Committee, along with voluntary workers, who visit the homes of the children and submit their reports to meetings which are held at regular intervals.

General Review of the Special Schools:—

(1) *The Myope School.*

The school at Daisy Hill is self-contained, exceedingly well lighted, built of brick and stucco, and is of the open-air type. It is provided with Dining Hall, Teachers' Room, Medical Officer's Refraction Room, Kitchen, Dressing Rooms and Lavatories, in addition to the requisite Class-rooms and Assembly Hall. It was specially built for short-sighted children in a six-acre field which is encircled by a plantation of trees. The accommodation is 178.

(a) Entrance to School.—Children found at the Eye Clinics by the Assistant School Medical Officers to be suffering from Myopia which is likely to become worse if the child's education is continued in an ordinary school are referred to the Chief Assistant School Medical Officer who re-examines the child and makes recommendations as to which school he or she should attend.

The standard adopted is all children with four diopters or over and children with under four diopters in cases where the Myopia is progressive.

(b) Methods of teaching.—Each child has a special myope desk with a blackboard suitably sloped, which is easily convertible into a horizontal table for manual work.

The time-table is so arranged as to leave most of the manual work for the afternoon. This includes for the older girls, such work as cookery and laundry, coarse knitting, cane work and nettings; and for the boys, printing, light woodwork, clay-modelling, raffia work, paper work, toy making and gardening.

The ordinary school subjects, literature, singing, arithmetic, geography, history, etc., are taught as efficiently as is possible, within the limitations necessarily fixed by the absence of the usual school books. Writing by pen or pencil is replaced by freehand work at arm's length on blackboards.

(c) Meals.—The children stay at school all day and their meals, which are sent from the Green Lane Cooking Depot, are served in the Dining and Assembly Hall.

(d) Frequent examinations by Medical Officer.—The vision of all the children in the school is re-examined by refraction every three months until discharge.

(e) Discharge.—The children remain in the school until they reach 16 years of age, but there are cases in which the myopia has remained stationary for long periods where children are released by the Committee in order to take up suitable light employment, conditional that they attend the School Clinic for re-examination when required; others still of school age are discharged as fit for attendance at an ordinary Elementary School.

(f) Further Examination.—In some cases, children are re-examined by the Medical Officer for the school at intervals of six months after they have left the school.

Particulars as to the number of children in attendance at the School during the year are as follows:—

	<i>Boys</i>	<i>Girls</i>
Number on register 1st January, 1930 ... ..	68	121
Number admitted during 1930 ... ..	23	27
Number discharged during 1930 ... ..	25	35
Number on register 31st December, 1930 ... ..	66	113

Children who have left during 1930:—

	<i>Boys</i>	<i>Girls</i>
1. Transferred to Open-Air School ... ..	1	—
2. Left the City ... ..	—	4
3. Certified fit for Ordinary School ... ..	12	9
4. Went to work at 14 years of age ... ..	11	20
5. Went to work at 15 years of age ... ..	—	2
6. Went to work at 16 years of age ... ..	1	—
Totals ... ..	25	35

It will be seen from the above figures that 50 children were admitted during the year. The average number admitted during the six years previous was 51·33. The number discharged was 60, and the average number discharged for the six years previous was 31·66.

In addition to the 179 children on the register of the school at the end of December, 1930, it will be noticed from Table III at the end of the report that there were 28 children attending Public Elementary Schools and 13 children at no school or institution.

Of the 28 children attending Public Elementary Schools, in 15 cases the parents objected to the children being transferred to the Myope School, and they are being kept under observation in Elementary Schools by the Assistant School Medical Officer; 3 were attending the Carlton Special Class; 2 were under treatment at the Eye and Ear Hospital; and the remaining 8 were in the transition stage of being transferred to the Myope School.

Of the 13 children at no School or Institution, 3 of them were attending the Royal Eye and Ear Hospital or School Clinic for Keratitis and Corneal Opacities, and were excluded from attendance at School; in 2 cases the parents objected to their children attending the Myope School, and on account of the state of the vision these children were excluded from school and were kept under observation; 2 children were receiving private treatment; the remaining 6 were excluded from school until arrangements were made for admission to the Myope School.

## (2) THE DEAF SCHOOL.

On 29th April, 1930, the children were transferred from Odsal House to Bolton Royd which was originally a private house, but had recently been used as a Preparatory Girls' Grammar School.

The building is situated on a site with a south-westerly aspect, surrounded by gardens, bowling green, four tennis courts, with a plantation of trees round the extremities of the grounds.

The rooms of the ground floor are used as Day and Evening Institute Classes for Dressmaking, Tailoring, Cookery, Applied Art, Hairdressing, Embroidery, and Physical Culture.

All the rooms occupied by the deaf children are on the first floor, which consists of Main Hall, five classrooms, one of which is used as a dining room, two staff rooms, two cloakrooms and lavatories in which each child has its own towel and toothbrush.

The bowling green on the south side of the school is used as a playground for the girls and part of the gardens on the north side have been cleared and asphalted and made into a playground for the boys. One of the tennis courts is used by the deaf children and the others are used by the children from the Belle Vue High School for Girls. One of the outbuildings has been converted into a cobbler's shop for the boys and another into a bakery which is used by the Trade Bakery Classes. The accommodation for deaf children is forty-five.

The children stay at the school all day and their meals are sent from the Green Lane Cooking Depot.

The Teaching Staff consists of head teacher and three assistants, and in addition one man attends two half-days per week to teach the boys cobbling.

The acquisition of Language is the most important item of the curriculum, and along with it the teaching of Speech and Lip-reading. Arithmetic is taught from the first, but other school subjects follow as language grows.

Speech is taught to all with varying degrees of success. Some learn to speak quite fluently, but it is found that even those who acquire the least, are better for the training, and do make use of the speech they have. No finger spelling is used. Most people fail to realise that when a deaf child comes to school he has no language, and that until a usable amount is acquired no other school subjects, such as geography and history, can be taught.

The semi-deaf or hard-of-hearing are taught in a class by themselves as their needs are very different from those of the really deaf.

The teaching of lip-reading, the correction of minor speech defects which so often accompany partial deafness, the development of the hearing they possess, and the individual attention which can be given in a small class, are the main points which mark their teaching. Otherwise their education proceeds much on the lines of the hearing children, even singing being included.

The usual manual occupations are taken by the younger children. The boys over eleven years of age attend the Frizinghall Manual Centre for Woodwork one half day each week. Boys of 12 and 13 have cobbling one half-day and later two half-days. The girls learn knitting and sewing (hand and machine) and also the renovation and alteration of garments. At 14 years of age they attend the Cookery and Housewifery classes at Green Lane Centre.

Particulars as to the number of children in attendance at the school during the year are as follows:—

	<i>Boys</i>	<i>Girls</i>
Number on register 1st January, 1930 ... ..	17	14
Number admitted during 1930 ... ..	4	7
Number discharged during 1930 ... ..	3	1
Number on register 31st December, 1930 ... ..	18	20
1. Bradford children:—		
(a) Totally Deaf ... ..	11	11
(b) Partially Deaf ... ..	4	5
(c) Aphasic ... ..	2	4
2. Children from other towns:—		
(a) Totally deaf ... ..	1	—
Children who have left during the year :—		
1. Transferred to Hearing School ... ..	1	—
2. Went to work at 16 years of age ... ..	2	1
Totals ... ..	3	1

Evening classes for instruction in Lip-reading are held at the Belle Vue Evening Institute. They are intended for those who have become deaf or hard-of-hearing after school life. The students are mainly people in middle life and they readily acknowledge the value they derive from a knowledge of lip-reading.

### (3) LISTER LANE SCHOOL FOR PHYSICALLY DEFECTIVES.

This is a special school for children who are so incapacitated, principally on account of deformity or cardiac disease, that they are unable to benefit from education in an ordinary Elementary School.

In January, 1930, accommodation for nursery children (2 to 5) was provided at this school. Other children are admitted on attaining school age, or later, and stay till 16 years old.

Motor ambulances are provided for the conveyance of children unable to travel by the ordinary means of transport. Special chairs and couches are available in the class-rooms.

The School is designed on open-air lines with ample window space and playing grounds. The main block is orientated to get the maximum amount of sun. The children stay all day at school, their dinners being sent from the Green Lane Cooking Centre. Additional milk puddings are prepared in the School Kitchen, where also the girls get cookery lessons. The children rest for an hour on canvas stretchers after their dinners.

Education is adapted to the needs and capacity of the individual. An increasing amount of technical training is being introduced. Although the educational curriculum prevents an early start in what will probably be the child's life work, needlework and knitting are taught at the age of 7 and 8, and handwork begins in the lowest classes and is graduated up to the period when definite vocational training can be begun. The disabilities under which these crippled children labour during school age and in after life are so great that every effort should be made during the former period to make them in the latter period independent and self-supporting members of the community. In mental capacity the children vary from those considerably retarded mentally to acutely intelligent Secondary School children. The range of physical capacity is almost as wide.

The Medical Staff consists of a Nurse and four Masseuses, who are employed whole-time, the Medical Officer, who visits one half-day a week, and a Consulting Orthopædic Surgeon, who visits one half-day a week. Massage, remedial exercises, baths and electricity form part of the routine treatment. Cellulose splints and jackets and simple metal splints are made and fitted at the School, and in a few cases boots and appliances have been provided by the Authority. The Orthopædic Surgeon operates on selected cases at St. Luke's Hospital.

There were 220 children on the School Roll at the end of the year, classified as follows :—

Defect	Boys			Girls			Total
	Aged under 5	Aged 5 to 10	Aged 11 to 15	Aged under 5	Aged 5 to 10	Aged 11 to 15	
Congenital Deformities, <i>e.g.</i> , Club-foot, Dislocation of Hipjoint, etc. ... ..	3	9	1	1	6	2	22
Birth Palsy, Torticollis, Infantile Hemiplegia, etc. ... ..	1	7	4	—	8	1	21
Deformities due to Infantile Paralysis ...	2	18	6	—	18	4	48
Deformities due to Rickets ... ..	1	—	1	1	1	—	4
Deformities due to Tuberculous Disease of Bones and Joints :							
1. Spine ... ..	—	5	1	—	3	5	14
2. Hip ... ..	—	6	6	—	6	1	19
3. Other regions ...	—	4	2	—	2	3	11
Heart Disease :—							
Congenital ... ..	1	9	4	—	10	4	28
Acquired ... ..	1	10	11	—	3	12	37
Other Conditions ...	—	8	3	—	4	1	16
Totals ... ..	9	76	39	2	61	33	220

	Boys	Girls
Number on Register 1st January, 1930 ... ..	106	95
Number admitted during 1930 ... ..	48	37
Number discharged during 1930 ... ..	29	25
Number on register 31st December, 1930 ... ..	124	96

Children discharged during the year :—

1. Fit to attend an Elementary School ... ..	14	6
2. Unfit to attend any School ... ..	2	—
3. For employment at 16 years of age ... ..	6	8
4. For employment under 16 years of age ... ..	5	5
5. Left the City ... ..	—	2
6. Deceased ... ..	2	3
7. Other reasons ... ..	—	1
Totals ... ..	29	25

The following table gives particulars of treatment given by the Masseuses at Lister Lane School:—

Defect	Nature of Treatment							
	Massage.		Electrical.		Remedial Exercises.		Splints and Jackets.	
	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments
Infantile Paralysis .. ..	30	1877	5	366	10	720	2	29
Spinal Curvature .. ..	1	9	—	—	3	168	1	22
Little's Disease .. ..	—	—	—	—	1	110	—	—
Spastic Paralysis .. ..	2	141	—	—	2	206	—	—
Tubercular—Spine .. ..	4	140	—	—	11	791	3	71
"    Hip .. ..	2	33	—	—	4	296	12	377
"    Knee .. ..	4	129	—	—	—	—	6	218
"    Elbow .. ..	—	—	—	—	—	—	1	42
Spinal Caries .. ..	—	—	—	—	1	70	1	14
Heart Disease .. ..	1	20	—	—	6	421	—	—
Hemiplegia .. ..	12	706	—	—	9	661	2	65
Cerebral Diplegia .. ..	—	—	—	—	1	55	—	—
Erb's Palsy .. ..	1	61	—	—	1	110	—	—
Spastic Paraplegia .. ..	3	162	—	—	3	227	—	—
Paralysis following Meningitis	—	—	—	—	1	82	—	—
Rickets .. ..	4	202	—	—	1	30	—	—
Congenital Hip Dislocation..	1	57	—	—	—	—	—	—
Congenital Deformity .. ..	6	331	1	59	3	247	1	30
Talipes .. ..	7	505	—	—	1	98	2	68
Amputation of Legs .. ..	1	31	—	—	—	—	—	—
Hypertrophic Paralysis .. ..	1	27	—	—	—	—	—	—
Contracture Forearm .. ..	2	129	—	—	—	—	—	—
Congenital absence of radius and thumb.. ..	1	19	—	—	—	—	—	—
Pott's Disease .. ..	—	—	—	—	1	86	2	46
Achondroplasia .. ..	—	—	—	—	1	35	—	—
Osteomyelitis Hip .. ..	—	—	—	—	—	—	1	4
Coxa Vara .. ..	—	—	—	—	—	—	1	35
Injury to Elbow .. ..	1	47	—	—	—	—	—	—
Hæmophilia .. ..	—	—	—	—	—	—	1	7
Birth Palsy .. ..	1	81	1	77	1	119	—	—
Muscular Atrophy .. ..	1	78	—	—	—	—	—	—
Totals .. ..	86	4785	7	502	61	4532	36	1028

## (4) CLASSES FOR STAMMERERS.

There is now only one class for Stammerers at the Wibsey Council School. The scholars remain to dinner and rest before beginning the afternoon's work. This daily rest forms no small part of the treatment of the stammerers, whose general physical condition is carefully watched. The treatment includes special breathing and rhythmical exercises, and in addition the scholars take such ordinary class subjects as may be followed without detriment to the general development of speech control.

11 children attended this class during the year 1930, of whom 1 was transferred to the Mentally Defective School (greatly improved as regards the stammering), 3 left to go to work at 14 years of age (2 greatly improved and 1 slightly improved, leaving 7 in attendance at the end of the year; 6 greatly improved and 1 slightly improved.

Of the 7 children, 3 of them are very Dull and Backward, 1 subject to epileptic fits and 1 Aphasic.

## (5) THE MARGARET McMILLAN SPECIAL DAY SCHOOL FOR MENTALLY DEFECTIVE CHILDREN.

The history of Mental Defective Schools, particulars respecting the present buildings, and photographs of the new Boys' School which was opened 23rd September, 1929, appeared in the 1929 report.

As far as possible, with mentally defective children, the chief aim is to teach these children those things which will be most useful and helpful after leaving school, when to a certain extent they have to rely on themselves, so that although limited in many ways they may at least try to be decent and happy citizens by taking a pride in themselves and their homes.

*Curriculum.—Boys.*—There is about three-quarters of an acre of land attached to the school. Gardening forms the central activity of the boys' work during the "open" months. There is also a greenhouse which gives an added interest in their work, in that they are able to rear plants from seeds and cuttings and watch the growth and development of plant life from its earliest stages even during the "closed" months, besides being able to cultivate their own bedding-out plants.

Much of the woodwork for the younger boys is connected with the garden. For the younger boys, the preparatory handwork includes raffia and basket work as well as lighter woodwork. For the older boys there is more advanced woodwork, and apart from gardening, there is definite vocational training in tailoring and cobbling, for boys who may have shown special aptitude and interest. Simple metalwork is also taught.

Towards the end of their course, a few boys are working definitely at their trade two days a week at cobbling and three days at tailoring. While their general elementary education is carried on, up to the limit

of their ability, the work is related as far as possible to the needs of daily life, and thus acquires a meaning from a connection with some practical activity such as carpentry and gardening, in which they are definitely interested.

*Curriculum—Girls.*—The girls are taught to read numbers, the names and values of coins, simple shopping and giving change, to tell the time, and weighing and measuring. To write names and addresses. Simple reading for higher grades.

A great deal of time is spent on needlework, the higher grades being taught to use a hand sewing-machine, the cutting out and making of suitable garments and decorative stitchery. (Several of the older girls are able to make a simple washing dress under supervision. All the overalls, curtains, cushion cases, etc. in use at the school are made by the girls.) Simple alterations, patching, and darning. Knitting coatees, socks, caps, scarves, etc.

The handwork is varied and includes raffia and canework, leather work, stencilling, wool rug making, chair caning, simple woodwork, and use of tools.

Domestic work is taught as washing up, scrubbing boards and tables, sweeping and dusting, making a bed, cleaning silver and cutlery, etc.

Cookery. Simple homely everyday cookery, using homely measurements.

Laundry. Use and care of boiler and other washing utensils. Washing various articles, starching and ironing.

Gardening. The girls have care of both the kitchen garden and flower garden.

Singing and Recitation. These help the girls in the use of the voice and also to appreciate beautiful words and music.

Country Dancing and Team Games. These are lessons which are keenly enjoyed by the girls, and are most helpful in teaching deportment, a free easy movement and also to take defeat in the proper spirit.

The school for boys provides accommodation for 150, and that for girls 90.

The numbers of children attending this School are shown in the following table :—

	On roll 1st January, 1930	Admitted	Discharged	On roll 31st December, 1930
Boys ... ..	81	22	21	82
Girls ... ..	50	18	12	56
Totals ... ..	131	40	33	138

Boys who have left during the year :—

1. Went to work at 16 years of age ... ..	6
2. Transferred to Institutions for Mentally Defectives ... ..	6
3. Placed under guardianship of parents ... ..	7
4. Left the City ... ..	1
5. Transferred to Grassington Sanatorium ... ..	1
Total ... ..	21

Girls who have left during the year :—

1. Went to work at 16 years of age ... ..	6
2. Transferred to Institution for Mentally Defectives ... ..	1
3. Placed under guardianship of parents ... ..	2
4. Transferred to Grassington Sanatorium ... ..	1
5. In process of being dealt with ... ..	2
Total ... ..	12

#### (6) GRASSINGTON SANATORIUM SCHOOL.

Children found at Medical Inspections to be suffering from or suspected to be suffering from Pulmonary Tuberculosis are referred to the Anti-Tuberculosis Officer, who holds a Children's Clinic at 2 Howard Street each Friday at 1.30 p.m.

Children are selected by the Anti-Tuberculosis Officer for attendance at the Grassington Sanatorium School, and are conveyed there by ambulance.

Excepting an occasional case that is withdrawn by the parent or other reasons, such as infectious diseases, etc., the children remain at this school until discharged by the Medical Officer of the Sanatorium.

On January 1st, 1930, 19 boys and 23 girls were in residence at this school; 45 boys and 42 girls were admitted, and 39 boys and 40 girls discharged during the year, leaving in residence on 31st December, 1930, 25 boys and 23 girls.

The 48 children on register 31st December, 1930, were classified by the Medical Superintendent of the Institution, Dr. Cummings, as follows :—

	<i>Boys</i>	<i>Girls</i>
1. Infectious Pulmonary and Glandular Tuberculosis	—	5
2. Non-infectious but active pulmonary and glandular tuberculosis ... ..	21	17
3. Active non-pulmonary tuberculosis ... ..	4	1
4. Pre or latent tuberculosis ... ..	—	—
	25	23
	—	—

The 79 children discharged were dealt with as follows :—

Admitted to	Boys	Girls	Total
Thackley Open-air School .. .. .	9	19	28
Odsal House Open-air School .. .. .	10	5	15
Ordinary School .. .. .	4	5	9
Re-admitted Grassington .. .. .	2	1	3
Over 14 years of age .. .. .	2	2	4
Treatment at the Anti-tuberculosis Centre ..	3	1	4
Bradford Children's Hospital .. .. .	2	1	3
St. Luke's Hospital, Bradford .. .. .	1	—	1
Myope School .. .. .	1	—	1
Deceased .. .. .	—	2	2
Left the City .. .. .	1	—	1
Lister Lane School for Physically Defectives ..	3	2	5
Bolton Royd Deaf School .. .. .	1	—	1
Transferred to Adult Block .. .. .	—	2	2
Totals .. .. .	39	40	79

Mr. F. W. Goyder, M.B., F.R.C.S., Consulting Orthopædic Surgeon, attends this School monthly to supervise the treatment of Surgical Tuberculosis and arrange for any cases requiring Surgical Treatment to be transferred to the Orthopædic Clinic at St. Luke's Hospital.

#### ANTI-TUBERCULOSIS CENTRE.

The following particulars respecting the treatment of school children at the Anti-tuberculosis Centre have been supplied by Dr. Vallow, the Tuberculosis Officer :—

1. Children treated at the Anti-tuberculosis Centre :—	<i>Boys</i>	<i>Girls</i>
Number under treatment on the 1st January, 1930 ...	9	7
Number of new cases during the year ... ..	101	71
Number discharged during the year (including cases sent to Sanatoria) ... ..	96	69
Number remaining under treatment on 31st December, 1930 (including cases who were not sent to Grassington until January 1st, 1931) ... ..	14	9

18. NURSERY SCHOOLS. — There are six Nursery Schools in Bradford, St. Ann's School was opened in the Spring of 1920, Princeville School in November, 1920, Lilycroft School in May, 1921 Wapping Road in October, 1925, Bowling Back Lane 5th November, 1929, and Bierley School 10th November, 1930.

Full particulars respecting sites, buildings, equipment, gardens, dietary provided and general principles which guide the life of the Nursery School, etc., etc., have been given in previous reports.

The Medical Staff acts in close association with the Education Staff in connection with the general arrangements, equipment and dietary provided. The Assistant School Medical Officer visits the schools one half-day per month and the Nurse one half-day per week.

The following table gives the number of defects found at the periodical examinations of Nursery School Children:—

Defect or Disease.	Number of Defects.			
	To be kept under observation but not referred for treatment.	Referred for Treatment.	Treated by this Authority.	Treated Otherwise.
Malnutrition... ..	—	2	2	—
Uncleanliness : Head ... ..	—	2	2	—
Skin : Ringworm—Head ... ..	—	1	1	—
Scabies ... ..	—	3	3	—
Impetigo ... ..	—	14	14	—
Other Diseases (Non-T.B.)... ..	—	9	9	—
Eye : Blepharitis ... ..	—	5	5	—
Keratitis ... ..	—	1	1	—
Squint ... ..	3	4	4	—
Other Conditions ... ..	—	3	3	—
Ear : Defective Hearing ... ..	1	—	—	—
Otitis Media ... ..	—	5	5	—
Nose and Throat :				
Enlarged Tonsils ... ..	12	8	8	—
Adenoids ... ..	2	—	—	—
Enlarged Tonsils and Adenoids ... ..	2	3	3	—
Other Conditions ... ..	1	5	4	1
Enlarged Cervical Glands (Non-T.B.)	3	1	1	—
Defective Speech ... ..	1	—	—	—
Dental Disease ... ..	—	1	1	—
Heart and Circulation:				
Heart Disease—Organic ... ..	2	—	—	—
Functional ... ..	1	—	—	—
Anæmia... ..	5	4	4	—
Lungs : Bronchitis ... ..	2	9	9	—
Other Non-T.B.. Diseases	2	8	7	1
Nervous System: Other Conditions	1	—	—	—
Deformities : Rickets ... ..	1	2	2	—
Spinal Curvature ... ..	—	1	1	—
Other Forms ... ..	1	1	1	—
Mental Condition ... ..	1	—	—	—
Other Defects and Diseases ... ..	2	18	15	3
Minor Ailments ... ..	—	10	9	1
Totals ... ..	43	120	114	6

19. SECONDARY SCHOOLS.—During the year the woman Medical Officer has been employed about five half-days per week on work in connection with the Secondary Girls' Schools. In the Boys' Secondary Schools a similar amount of time has been spent, the Medical Officer in each of the four districts taking the Secondary Boys' School in his particular district. Medical Inspections have been carried out in all the Secondary Schools under this Authority, also in the Bradford Boys' Grammar School, the Girls' Grammar School, St. Bede's Grammar School and St. Joseph's College for Girls. In all the Schools except the Boys' Grammar School the classes of children examined were all Entrants and children 12 years of age together with children over 12 years.

It will be seen from Table I that 3,863 children were examined during the year, compared with 3,808 in 1929, 3,863 in 1928, 3999 in 1927, 4,261 and in 1926.

The summaries of all defects found with the recommendations of the Medical Officers along with the number treated are given in the Tables under the heading of Secondary Schools, also the number of children examined and treated by the School Dentist which are given in Table IV. Group IV.

20. CONTINUATION SCHOOLS.—No provision is made for the Medical Inspection of pupils in Continuation Schools by this Authority.

21. EMPLOYMENT OF CHILDREN AND YOUNG PERSONS  
—(i) Education Act, 1921, Part VIII, Section 90 to 108.

There has been no change in the administration of the Bye-laws for the control of young persons trading in the streets, and for the regulation of children in general employment.

The provisions of the Bye-laws controlling these employments have been so widely and thoroughly circulated throughout the City that flagrant offences rarely occur.

Approximately 400 children were known to be employed out of school hours during the year, the chief occupations being those of errand boys or girls in connection with shops of Newsagents, Milk Dealers, Grocers, Butchers, Confectioners, and Greengrocers. The number of offences discovered during this period was 169, these figures relating to 96 children. Warning notices were served in respect of 168 of the complaints, and in 1 case proceedings before the magistrates were instituted, and a fine of 20/- and 2/- costs was imposed.

Thirty children, who were under 12 years of age, were found to be employed contrary to the provisions of the Education Act, and in 29 of these cases warnings were sent to the employers concerned; in the remaining instance the employer (the father of the boy) was prosecuted and fined 2/6.

#### CHILDREN EMPLOYED IN PUBLIC ENTERTAINMENTS.

During the year 41 applications were made and granted to enable children to take part in public entertainments. The whole of these children were examined by the School Medical Officer in order to ascertain their fitness for this work, and in each case they were certified as being fit.

Six children have visited Bradford under licences issued by other Education Authorities and have taken part in public entertainments at the various places of amusement in the City.

In addition, 18 children have taken part in various entertainments in the City, 16 of these being engaged in the Alhambra Theatre Christmas Pantomime.

The Statutory Rules and Orders are strictly enforced. Apartments in respect of children on tour are very carefully inspected; the children are chaperoned to and from the theatre, and attend school regularly. The dressing rooms at the theatres and music halls were regularly inspected, and the children checked as to the time they left the theatre, etc.

#### STREET TRADING.

No girl under the age of 16 years is permitted to engage or to take part in street trading, and youths desiring to follow this occupation must be 15 years of age and be certified as fit for this occupation by the School Medical Officer.

Nine licences were issued during the year and during this period 49 boys and 3 girls were found illegally trading in the streets without licences. The employers and parents of these children were warned that a repetition of the offence would involve them in legal proceedings.

Having regard to the size of the City, there is no serious ground for complaint, either with regard to the employers of children or respecting the young persons trading in the streets.

In the work of supervision of Street Traders the Police have readily and effectively co-operated with the officials of the Education Department.

Twenty children attending the Secondary Schools of the City have been found employed out of school hours, and the parents were warned as to the breach of the agreement.

(ii) The co-ordination of the work of the School Medical Service with that of the Juvenile Employment Bureau is carried out as far as possible: previous to leaving school a Juvenile Employment Card is completed for each child, on which is entered particulars respecting the physical condition, height, hearing, eyesight, and general health. These particulars are taken into consideration in deciding what occupation a child is suitable for. In exceptional cases, children are medically examined by the Chief Assistant School Medical Officer at the request of the Officer-in-Charge of the Bureau. During the year under review,

one noticeable case occurred of a girl whom the Bureau was unable to place in any employment on account of Defective Vision; this girl had refused to wear spectacles as recommended by the School Medical Officer during the time she attended school. The case was reported to the School Medical Officer, who treated the girl at the School Clinic by refraction, supplied her with spectacles, after which she was found work by the Bureau, suitable to her eye condition.

The Juvenile Employment Bureau is also of great assistance in placing children in employment who have attended the Special Schools; from the period 1922 to 1930, occupations were obtained by the Bureau for twenty-eight children who had attended Lister Lane School for Physically Defectives and for three children who had attended the Deaf School.

The Juvenile Employment Committee report that during the year 1930 great difficulty has been experienced by the Bureau owing to the prolonged and aggravated depression in the Textile Trade with its attendant scarcity of vacancies available.

It has, therefore, been the tendency for juveniles to take any position which presented itself without considering whether the choice was quite suitable. This, though scarcely avoidable, is to be regretted, as so much depends on a "right start" in the future careers of our young people.

A noticeable feature is that it has been found easier to place girls than boys, there being apparently a wider field open to them in the distributive trades—as shop assistants, milliners, dressmakers, and in office work—than in the case of boys.

A revival in the local trade would tend to create a greater demand for boys, especially those from secondary schools, to take up posts with the object of training for positions of greater responsibility in the offices and works management of the principal firms engaged in the Textile Trade and subsidiary activities.

The number of reports received by the Bureau on children leaving school at the end of the several school terms during the year 1st August, 1929, to 31st July, 1930 were as follows:—

	Boys	Girls	Total
October, 1929 .. .. .	230	234	464
December 1929 .. .. .	326	321	647
Easter, 1930 .. .. .	479	487	966
Midsummer, 1930 .. .. .	718	615	1333
Totals .. .. .	1753	1657	3410

Of the 1,753 boys and 1,657 girls who had taken up first occupations on leaving school, 72 boys and 64 girls had attended Special Schools in the city.

These reports, compiled by the Head Teachers and bearing a specimen of the child's handwriting and also an indication as to whether assistance is desired, are invaluable in assisting the Bureau's Officers to recommend the school-leaver for the post best suited for him.

As last year, arrangements have been made for those leaving school who have not any prospect of work, or who wish for advice, to come to the Bureau on stated evenings of the week for registration. As it was found that juveniles were often accompanied by their parents, who could not make it convenient to attend during the daytime at the school conferences which have been held as usual prior to the closing of the schools for the Midsummer Term, the opportunity was taken to talk over with the parent and child the best course adopted for his or her future training and placing in suitable employment.

The District After-care Committees continue to do excellent work in keeping in touch with boys and girls on leaving school up to the age of 18 years. Many of the members of these Committees take a very keen interest in the work, which is entirely voluntary and consists of paying visits to the homes of children between the ages of 14 and 18 years who have left school, and advising as to their choice of employment and also on matters affecting their general welfare. The results of this voluntary work, which is much appreciated by the Sub-Committee and the parents of the children concerned, cannot be fully estimated, but there is no lack of evidence that they are often highly satisfactory.

During the year ended 31st July, 1930, the number of juveniles placed in occupations by the Bureau were as follows:—

	Number between the ages of				Total
	14—15	15—16	16—17	17—18	
Boys .. .. .	312	98	148	81	639
Girls .. .. .	349	113	221	132	815

(iii) The findings of the School Medical Service as regards the physical conditions of employed children and young persons.

Children employed in Public Entertainments. — Groups of children selected by the Managements for employment at the Pantomimes in the Theatres are medically examined some weeks before the Pantomime season commences.

Each child is examined in the presence of its parent who is asked to supply particulars of the child's previous history and only those children who are found to be physically sound are passed as fit for the training and performances.

During the preliminary training the children are occasionally visited by the Chief Assistant School Medical Officer at their evening instruction class, also during the run of the Pantomime in their quarters at the Theatre.

At the end of the Pantomime season the children are all re-examined at the School Clinic, and records are again made of their heights, weights, etc.

The children are extremely well supervised and well cared for, before, during and after each performance. Their quarters are roomy and comfortable.

Medical examination proves them to have actually improved in health as a result of, or in spite of, their exertions. This improvement is exemplified in their increase in weight, increase in chest capacity, in their marked mental alertness, and in their appearance of general physical well-being. The Medical Officer has repeatedly failed to detect signs of fatigue in the children.

It must be remembered, of course, that these children have been specially selected and that they are in sound physical condition in the first instance, but it is obvious that their occupation in Pantomime is having no detrimental effect upon their health.

During the year 1930, thirty-eight children were examined on the 12th November and re-examined at the close of the Pantomime season in February, 1931. All the children had gained in height, weight, and hæmoglobin, except that one had remained stationary. The average net gain per child was, height five-eighths of an inch, weight three pounds, and their average hæmoglobin content was 91 per cent.

It would appear that regular exercise is a factor that plays an important part in the development and maintenance of growth and good health. One is inclined to believe that the part played by exercise is no less important than, for instance, an adequate supply of suitable food or fresh air.

22. SPECIAL INQUIRIES—STAMMERERS.—During the year 1927 the Board of Education asked for information on the value of the various methods of training used in the treatment of children suffering from stammering and instituted an inquiry towards that end. Thirty-one children who had left the Stammerers' Class for a period of one year or upwards were re-examined and the results appeared in the 1927 report.

In October and November, 1930, this was followed up by a fuller inquiry on similar lines, excepting that all the children who had attended the Stammerers' Classes from their commencement were visited at their homes by the School Nurses, and in a few cases information was obtained from the employers of the children.

One hundred and fourteen cases were visited and summarised as follows:—

No stammer	..	..	..	..	..	18
Slight stammer	..	..	..	..	..	7
Occasional stammer	..	..	..	..	..	16
Still stammers	..	..	..	..	..	63
No record	..	..	..	..	..	10
						<hr/>
Total	..	..	..	..	..	114
						<hr/>

Inquiries were also made as to what effect the stammer had regarding their employment, with the following result:—

Stammer not interfered with work	..	..	..	..	..	84
Stammer interfered with work	..	..	..	..	..	9
Still at school	..	..	..	..	..	7
No information	..	..	..	..	..	14
						<hr/>
Total	..	..	..	..	..	114
						<hr/>

The following is the result of the inquiry:—

RESULT OF INQUIRY RE STAMMERERS, 1927 and 1930.

Initials	Sex	Age 1930	Class of stammering on admission	Duration of treatment	Length of time since leaving Stammerers' Class	RESULT		
						On leaving school	Condition April, 1927	Condition October, 1930
E.C.	F.	16	Considerable	3 years	8½ years	Cured	Occasional stammer when excited	Very slight stammer when excited
A.B.	M.	15	Severe	1½ years	6½ years	Cured	Occasional stammer when excited	As in 1927
H.C.	M.	12	Considerable	2 years	5½ years	Improved	Stammers when hurried	Gone to Africa
M.O.	F.	16	Considerable	2 years	7½ years	Cured	Stammers when hurried or excited	No record
F.N.	F.	13	Slight	1 year	5 years	Cured	Stammers	No stammer now
R.R.	M.	14	Considerable	6 weeks	6 years	Worse	Considerable stammer	As in 1927
S.M.	M.	15	Slight	3 years	6 years	Improved	Considerable stammer	Stammers when excited
L.S.	F.	13	Considerable	9 months	5 years	Cured	Stammers sometimes	No stammer now
J.K.	M.	17	Severe	10 months	7 years	Much improved	Considerable stammer	Slight stammer
W.W.	F.	16	Considerable	9 months	4 years	No change	Considerable stammer	No record
E.F.	M.	19	Severe	3 years	5½ years	Greatly improved	Considerable stammer	Occasional stammer
J.P.	M.	20	Severe	3½ years	6¼ years	Greatly improved	Stammers	As in 1927
M.M.	F.	19	Severe	4 years	5 years	Improved	Occasional stammer, continuing exercises	Still stammers
L.W.	F.	19	Severe	3 years	5½ years	Cured	Stammers	Slight stammer
M.M.	M.	19	Severe	3½ years	5 years	Greatly improved	Severe stammer	No record
J.H.	M.	18	Considerable	1 year	5½ years	Greatly improved	Slight stammer	As in 1927
G.G.	M.	19	Severe	1½ years	5 years	Cured	Considerable stammer. Employer is discharging boy because his stammer shakes ladder	Still stammers
E.D.	F.	11	Considerable	1 year	4½ years	Cured	No stammer, but extra slow in speech	No stammer
C.R.	M.	16	Considerable	1 year	8½ years	Greatly improved	Slight stammer	No stammer now
E.C.	M.	16	Considerable	2 years	8½ years	Cured	Slight stammer	As in 1927

RESULT OF ENQUIRY RE STAMMERERS, 1927 and 1930—*continued.*

Initials	Sex	Age 1930	Class of stammering on admission	Duration of treatment	Length of time since leaving Stammerers' Class	RESULT		
						On leaving school	Condition April, 1927	Condition October, 1930
K.S.	F.	18	Considerable	4 months	7 years	Cured	Considerable stammer. Re-recommended for Stammerers' Class	No stammer
H.B. E.C.	M. M.	19 17	Considerable Considerable	2 years 7 months	7 years 7 years	Cured Cured	No stammer Considerable stammer at present, relapses especially at term end	No stammer now
S.P. S.P. F.B. E.P. F.A. H.L. E.A. V.M.	M. M. M. M. M. M. F. F.	20 18 19 19 20 19 18 —	Severe Severe Severe Considerable Severe Severe Slight Considerable	1 year 3 years 2 years 5 years 2½ years 9 months 1½ years 8 months	7½ years 6 years 6½ years 5½ years 6½ years 6 years 9½ years 8 years	Improved Greatly improved Greatly improved Cured Greatly improved Improved Cured Cured	Severe stammer Considerable stammer. Considerable stammer Slight stammer Severe stammer Severe stammer (worse) No stammer Slight stammer	Still slight stammer Still stammers. Left district Stammers when excited No record Still stammers No stammer As in 1927

RESULT OF INQUIRY RE STAMMERERS, 1930.

Initials	Sex	Age 1930	Class of stammering on admission	Duration of treatment	Length of time since leaving Stammerers' Class	RESULT	
						On leaving school	Condition October, 1930
M.S.	F.	17	Severe	1½ years	4 years	Not cured	Still stammers
J.A.	M.	9	Considerable	2 years	2 years	Cured	Stammers
A.B.	F.	18	Severe	2 years	2½ years	Not cured	Still stammers
J.B.	M.	15	Considerable	1½ years	1½ years	Not cured	Left Bradford
J.B.	M.	15	Severe	2½ years	1½ years	Improved	Still stammers
K.C.	M.	11	Severe	3 months	1½ years	Not cured	Still stammers
A.C.	F.	15	Considerable	2½ years	4 years	Tonsils and adenoids removed, and stammer cured	
H.C.	M.	16	Considerable	6 months	3 years	Not cured	Still stammers
G.C.	M.	13	Severe	3 years	1½ years	Not cured	Left district
J.C.	M.	17	Slight	1½ years	1½ years	Improved	No stammer now
E.D.	M.	16	Severe	2½ years	2 years	Improved	Still stammers
J.R.	F.	17	Severe	7 months	4½ years	Improved	Left district
M.J.	F.	15	Considerable	2½ years	1½ years	Not cured	Still stammers
A.J.	M.	15	Considerable	2½ years	2½ years	Not cured	Still stammers
A.H.	M.	18	Considerable	1½ years	4½ years	Cured	Stammers
W.E.	F.	14	Severe	6 months	2 years	Improved	Still stammers
W.B.	M.	16	Considerable	2½ years	2½ years	Not cured	Still stammers
C.D.	M.	14	Considerable	5½ years	9 months	Not cured	Still stammers
J.D.	M.	19	Considerable	6 months	4½ years	Improved	Still stammers
F.D.	M.	17	Considerable	1½ years	3½ years	Cured	Stammers
J.F.	M.	16	Considerable	2 years	1½ years	Not cured	Still stammers
C.F.	M.	18	Considerable	1 year	4½ years	Cured	Still stammers
J.F.	M.	16	Severe	1 year	2½ years	Improved	Improvement maintained
D.H.	M.	10	Considerable	1½ years	2 years	Cured	Stammers
E.H.	F.	16	Severe	4 years	2 years	Improved	Stammers
E.H.	M.	14	Considerable	4 years	2 years	No change	Still stammers
C.H.	M.	18	Severe	1½ years	3½ years	Improved	Still stammers

## RESULT OF INQUIRY RE STAMMERS, 1930—continued.

Initials	Sex	Age 1930	Class of stammering on admission	Duration of treatment	Length of time since leaving Stammerers' Class	RESULT	
						On leaving school	Condition October, 1930
H.H.	M.	14	Severe	1½ years	6 months	No change	Still stammers
A.H.	F.	17	Severe	6 years	3½ years	Improved	Still stammers
A.J.	F.	17	Severe	4 years	3½ years	Improved	Still stammers
F.K.	M.	15	Considerable	3½ years	1½ years	Cured	Stammers
L.N.	M.	16	Considerable	3½ years	1½ years	Cured	Stammers
H.P.	M.	11	Considerable	5 months	3 years	No change	Stammers
E.R.	F.	17	Considerable	3½ years	3 years	Cured	Stammers
J.S.	M.	8	Severe	8 months	8 months	Improved	Stammers
C.S.	F.	11	Severe	1½ years	2 years	No change	Stammers
J.S.	M.	14	Severe	6½ years	3 months	Improved	Stammers badly
V.S.	M.	13	Severe	4 years	3 months	No change	Stammers
N.S.	M.	18	Severe	6 years	4 years	Improved	Stammers
J.T.	M.	17	Considerable	3 years	3 years	Improved	Stammers
H.T.	M.	16	Slight	4½ years	2½ years	Improved	Stammers
J.U.	M.	12	Severe	2½ years	1½ years	Improved	Stammers
H.W.	M.	16	Considerable	6 months	3½ years	Improved	Stammers
W.W.	F.	15	Considerable	8 months	4 years	No change	Stammers
T.W.	M.	16	Severe	4½ years	2½ years	Improved	Stammers
F.A.	M.	21	Considerable	2½ years	9½ years	Transferred to Myope School	Stammers
E.B.	M.	23	Considerable	2½ years	10 years	Improved	Stammers
Z.B.	M.	19	Severe	1 year	10 years	Cured	No stammer
S.C.	M.	20	Severe	9 months	10 years	Cured	No stammer
A.C.	M.	22	Considerable	3½ years	9½ years	Improved	Very rarely stammers
E.D.	F.	24	Considerable	4 years	9½ years	Improved	Stammers a little
F.E.	M.	21	Severe	4 years	7 years	Improved	Stammers when run down
J.E.	M.	23	Severe	1½ years	9 years	Much improved	Stammers
L.F.	F.	22	Considerable	6 months	6½ years	Much improved	Stammers
S.G.	M.	—	Considerable	1 year	7½ years	Improved	Stammers
A.G.	M.	23	Considerable	3½ years	10 years	Improved	Stammers very little

## RESULT OF INQUIRY RE STAMMERS, 1930—continued.

Initials	Sex	Age 1930	Class of stammering on admission	Duration of treatment	Length of time since leaving Stammers' Class	RESULT	
						On leaving school	Condition October, 1930
N.H.	M.	23	Considerable	3½ years	10½ years	Cured	No stammer
A.K.	F.	23	Severe	1½ years	9½ years	Cured	Stammers
P.K.	M.	22	Severe	1½ years	10 years	Improved	No Stammer
L.K.	M.	23	Considerable	1¾ years	10½ years	Much improved	Slight stammer
E.B.	F.	—	Severe	1 year	9¾ years	Cured	Stammers
J.L.	M.	19	Severe	1 year	5 years	Improved	Stammers
M.L.	F.	22	Severe	4 years	6½ years	Improved	Stammers—Paralysis
H.L.	M.	17	Severe	4 months	5½ years	Transferred to an Open-air School	Stammers
R.M.	M.	21	Severe	2½ years	7 years	Much improved	Slight stammer when run down
W.M.	M.	19	Severe	2 years	5½ years	Much improved	No stammer
J.M.	M.	21	Considerable	2 years	7½ years	Cured	Stammers
E.M.	M.	18	Severe	4½ years	5½ years	Cured	Stammers slightly
B.N.	M.	23	Severe	2 years	10½ years	Much improved	Stammers slightly
J.P.	M.	21	Severe	2 years	10 years	Cured	Stammers
C.R.	M.	24	Severe	9 months	10 years	Cured	Stammers
F.R.	M.	23	Considerable	4 years	9¾ years	Improved	Stammers
T.S.	M.	20	Considerable	2 years	9½ years	Improved	Stammers slightly
L.S.	M.	22	Severe	1½ years	8 years	Cured	Stammers slightly
R.S.	M.	22	Severe	5½ years	8 years	Cured	No stammer
E.T.	M.	24	Severe	2 years	10½ years	Much improved	Stammers
C.W.	F.	23	Considerable	1½ years	10¾ years	Cured	No stammer
I.W.	F.	21	Severe	2 months	6½ years	Cured	No stammer
H.W.	M.	22	Considerable	2½ years	8½ years	Much improved	Stammers
J.W.	M.	19	Considerable	1¾ years	6½ years	Cured	Stammers
E.Y.	M.	23	Considerable	1 year	10½ years	Much improved	Stammers
H.M.	M.	—	Considerable	1½ years	10 years	Much improved	No stammer
E.B.	M.	24	Considerable	2 years	9½ years	Improved	Stammers

23. MISCELLANEOUS.—During the Summer of 1930, 1540 Junior Scholarship candidates were medically examined an increase of 481 over the previous year. Of that number 280 boys and 245 girls, or 34·1 per cent. were found to be suffering from some abnormality, full particulars of which will be found in the undermentioned table, which again proves the necessity of children being medically examined before they are allowed to enter Secondary Schools.

Of the 525 found abnormal, 373, or 24·22 per cent. of the number examined were referred for treatment.

Defect or Disease.	Number of Defects.	
	To be kept under observation, but not referred for treatment.	Referred for treatment.
Malnutrition ... ..	25	125
Uncleanliness: Head ... ..	1	3
Body ... ..	1	—
Skin: Scabies ... ..	—	1
Impetigo... ..	—	3
Other Diseases (Non-Tub.) ... ..	2	8
Eye: Blepharitis ... ..	1	1
Defective Vision ... ..	113	131
Other Conditions... ..	—	1
Ear: Otitis Media ... ..	1	4
Nose and Throat: Enlarged Tonsils ... ..	84	61
Enlarged Tonsils and Adenoids ... ..	2	11
Other Conditions ... ..	2	3
Enlarged Cervical Glands (Non-Tubercular) ... ..	18	16
Dental Disease ... ..	1	70
Heart and Circulation: Heart Disease—Organic ... ..	9	11
Functional ... ..	20	6
Anæmia ... ..	16	29
Lungs: Bronchitis ... ..	1	2
Other Non-Tubercular Diseases ... ..	2	5
Tuberculosis: Pulmonary: Suspected ... ..	—	2
Non-Pulmonary—Other Forms ... ..	—	1
Nervous System: Epilepsy ... ..	—	2
Chorea ... ..	3	4
Other Conditions ... ..	2	3
Deformities: Rickets ... ..	5	1
Spinal Curvature ... ..	2	17
Other Forms ... ..	18	7
Infectious Diseases ... ..	—	1
Other Defects and Diseases ... ..	6	21
Minor Ailments... ..	—	1
Totals ... ..	335	551

In practically all cases where the Medical Officer had recommended treatment, the treatment was carried out at the School Clinic or Special Departments under this Authority. Of the numbers found abnormal, 9 boys and 8 girls were certified by the Assistant School Medical Officers after consultation with the Chief Assistant School Medical Officer, to be physically unfit for Secondary School education. In the cases of 9 boys and 17 girls, it was recommended that the scholarships be postponed for twelve months, 2 boys and 5 girls for six months and 1 boy for three months.

In the case of six girls it was recommended that they may be tried at the Carlton Special Class; nine boys and seven girls were admitted to Open-air Schools and one boy to the Myope School.

In addition to the above, several children were certified to be fit providing that the treatment recommended by the School Medical Officers was obtained before the date fixed for their commencement at the Secondary Schools.

Other cases were certified fit on conditions that they were excluded from homework, and in other cases from gymnastics and games.

Particulars of cases found unfit for Junior Scholarships:—

Case.	Boys.
1.	Malnutrition and Functional Heart Disease (admitted Open-air School).
2.	Progressive Myopia.
3.	Heart Disease. (Admitted Open-air School.)
4.	Cervical Glands, Anæmia, Bronchitis, and Overstrain.
5.	Progressive Myopia. (Admitted to Myope School.)
6.	Progressive Myopia.
7.	Hilar Tuberculosis. (Admitted Open-air School.)
8.	Epilepsy.
9.	T.B. Abdomen. (Admitted Open-air School.)

Case.	Girls.
1.	Chorea and Bronchitis.
2.	Progressive Myopia.
3.	Progressive Myopia.
4.	Bronchitis (?Tuberculous).
5.	Progressive Myopia.
6.	Progressive Myopia.
7.	Progressive Myopia.
8.	Progressive Myopia.

Particulars of cases for whom scholarships were recommended to be postponed:—

- | Case. | Boys.   |
|-------|---|
| 1.    | Anæmia, postpone 1 year.  |
| 2.    | Malnutrition and other Deformities, postpone 1 year.                          |
| 3.    | Malnutrition and Squint, postpone 1 year.                                     |
| 4.    | Anæmia and Malnutrition, postpone 1 year. (Admitted Open-air School.)         |
| 5.    | Anæmia, postpone 6 months. (Admitted Open-air School.)                        |
| 6.    | Myopia, postpone. (Admitted Open-air School.)                                 |
| 7.    | Myopia, postpone 6 months. (Admitted Open-air School.)                        |
| 8.    | Malnutrition and Anæmia, postpone 1 year. (Admitted Open-air School.)         |
| 9.    | Diphtheria Carrier, postpone 3 months, excluded from school for three months. |
| 10.   | Myopia, postpone 12 months.   |
| 11.   | Myopia, postpone 12 months.   |
| 12.   | Malnutrition, postpone 1 year.  |

- | Case. | Girls.   |
|-------|--|
| 1.    | Myopia, postpone 1 year.   |
| 5.    | Anæmia and Kyphosis, postpone 1 year. (Admitted Open-air School.)                          |
| 3.    | Anæmia and Kyphosis, postpone 1 year.  |
| 4.    | Tonsils and Enlarged Glands, postpone 1 year.  |
| 5.    | Malnutrition, postpone 1 year. (Admitted Open-air School.)                                 |
| 6.    | Myopia, postpone 1 year.   |
| 7.    | Anæmia and Pre-Tubercular, postpone 1 year.  |
| 8.    | Myopia, postpone 6 months.   |
| 9.    | Myopia, postpone 1 year.   |
| 10.   | Epilepsy, postpone 1 year.   |
| 11.   | Heart Disease, postpone 1 year.  |
| 12.   | Myopia, postpone 1 year.   |
| 13.   | Heart Disease, postpone 6 months.  |
| 14.   | Myopia, postpone 1 year.   |
| 15.   | Malnutrition, postpone 1 year. (Admitted Open-air School.)                                 |
| 16.   | Enlarged Glands and Tonsils, Heart Disease, postpone 6 months. (Admitted Open-air School.) |
| 17.   | Malnutrition, postpone 6 months. (Admitted Open-air School.)                               |
| 18.   | Pre-Tubercular, postpone 6 months. (Admitted Open-air School.)                             |
| 19.   | Malnutrition, postpone 1 year. (Admitted Open-air School.)                                 |
| 20.   | Myopic, Astigmatism, postpone 1 year.  |
| 21.   | Myopia, postpone 1 year.   |
| 22.   | Myopia, postpone 1 year.   |

							Boys.	Girls.
Certified not fit	..	..	..	..	..	..	9	8
Scholarship postponed 12 months	..	..	..	..	..	..	9	17
"          "          6	..	..	..	..	..	..	2	5
"          "          3	..	..	..	..	..	..	1	—
Admitted to Carlton Special Class	..	..	..	..	..	..	—	6
Admitted to Open-air Schools	..	..	..	..	..	..	9	7
Admitted to Myope School	..	..	..	..	..	..	1	—

24. STATISTICAL TABLES.—The numbers of scholars on the registers of the Schools in the City on June 30th, 1930, were as follows :—

				Number of children on Register	Average Attendance
Elementary Schools	...	...	...	36349	31114
Secondary Schools	...	...	...	3202	2973
Central Classes	...	...	...	452	408
Special Schools	...	...	...	1167	968
Nursery Schools	...	...	...	362	244
Totals	...	...	...	41532	35707



TABLE II

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION  
IN THE YEAR ENDED, 31ST DECEMBER, 1930.

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Malnutrition ... ..	1123	105	334	20	98	17	14	2
Uncleanliness ( <i>see</i> Table IV, Group V) ... ..	—	—	—	—	—	—	—	—
Skin :								
Ringworm, Scalp ... ..	5	—	94	—	—	—	2	—
Ringworm, Body ... ..	8	—	87	1	—	—	4	—
Scabies ... ..	22	—	167	1	1	—	—	—
Impetigo ... ..	105	1	1351	—	5	1	17	—
Other Diseases (Non- T.B.) ... ..	177	41	541	—	108	20	17	—
Eye :								
Blepharitis ... ..	58	3	175	—	3	—	2	—
Conjunctivitis ... ..	13	—	218	1	3	—	4	—
Keratitis ... ..	6	1	4	1	—	—	—	—
Corneal Ulcers ... ..	—	1	8	—	1	—	1	—
Corneal Opacities ... ..	2	1	—	—	—	—	—	—
Defective Vision (Ex. Squint) ... ..	871	542	1943	186	417	563	203	33
Squint ... ..	120	98	277	10	5	12	4	—
Other Conditions ... ..	9	7	343	5	—	—	18	1
Ear :								
Defective Hearing ... ..	24	18	99	2	10	5	5	—
Otitis Media ... ..	100	18	411	3	11	—	11	—
Other Ear Diseases ... ..	14	7	175	2	2	2	5	1
Nose and Throat :								
Enlarged Tonsils only ... ..	877	1091	114	31	84	198	11	5
Adenoids only ... ..	32	7	13	3	3	—	—	—
Enlarged Tonsils and Adenoids ... ..	236	26	193	47	21	2	2	—
Other Conditions ... ..	127	39	946	8	24	13	22	—
Enlarged Cervical Glands (Non-T.B.) ... ..	319	509	284	6	21	92	4	—
Defective Speech ... ..	16	48	—	15	1	8	—	1

TABLE II—*continued.*

Defect or Disease	Elementary Schools				Secondary Schools			
	Routine Inspection		Special Inspection		Routine Inspection		Special Inspection	
	No. of Defects		No. of Defects		No. of Defects		No. of Defects	
	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Teeth—Dental Disease (see Table IV, Group IV) ... ..	558	70	106	—	76	11	3	—
Heart and Circulation :								
Heart Disease Organic	71	76	11	4	7	5	1	2
Heart Disease Func- tional ... ..	48	152	14	48	12	68	2	6
Anæmia ... ..	444	92	829	46	177	79	26	5
Lungs :								
Bronchitis ... ..	327	42	355	11	16	1	5	—
Other Non-T.B. Dis- eases ... ..	181	44	790	14	17	8	7	2
Tuberculosis :								
Pulmonary Definite	—	—	—	1	—	—	—	—
Pulmonary Suspected	24	3	70	12	2	—	—	1
Non-Pulmonary—								
Glands ... ..	8	2	18	1	—	1	—	—
Spine ... ..	—	—	3	—	—	—	—	—
Hip ... ..	—	—	7	4	—	—	—	—
Other Bones and Joints ... ..	—	—	9	—	—	—	1	—
Skin ... ..	—	—	2	1	—	—	—	—
Other Forms ... ..	3	—	15	3	—	—	—	—
Nervous System :—								
Epilepsy .. ..	11	7	1	17	—	—	—	—
Chorea ... ..	24	14	113	40	2	3	—	2
Other Conditions ... ..	78	31	44	25	7	10	—	3
Deformities :—								
Rickets ... ..	66	86	10	7	—	17	—	—
Spinal Curvature ... ..	193	35	40	2	51	32	18	2
Other Forms ... ..	110	168	73	31	115	100	—	1
Mental Condition ... ..	33	26	7	170	—	—	—	—
Infectious Diseases ... ..	16	2	143	29	—	—	—	2
Other Defects and Diseases ... ..	517	116	8185	129	84	28	256	6
Totals ... ..	6976	3529	18622	937	1384	1296	665	75

TABLE II—*continued*.

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASE).

Group	Number of Children		Percentage of Children found to require Treatment
	Inspected	Found to Require Treatment	
Code Groups :—			
Entrants ... ..	3921	1396	35·60
Intermediates ... ..	3940	1419	36·02
Leavers ... ..	1949	695	35·66
Total (Code Groups) ... ..	9810	3510	35·78
Other Routine Inspections:			
Other Ages ... ..	971	367	37·80
Candidates for Secondary Schools ...	1540	373	24·22
Nursery Schools ... ..	402	210	52·24
Special Schools ... ..	276	102	39·96
Total (Other Routine Inspections) ...	3189	1052	32·99

## SECONDARY SCHOOLS.

Group	Number of Children		Percentage of Children found to require Treatment
	Inspected	Found to Require Treatment	
Routine Inspections (including other ages) ... ..	3863	983	25·45

TABLE III.

## RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys	Girls	Total
Blind (including partially blind)	(1) Suitable for training in a School or Class for the totally blind	Attending Certified School or Classes for the Blind...	8	5	13
		Attending Public Elementary Schools ...	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	3	3	6
	(2) Suitable for training in a School or Class for the partially blind	Attending Certified Schools or Classes for the Blind ...	66	113	179
		Attending Public Elementary Schools ...	13	15	28
At other Institutions ...		—	—	—	
At no School or Institution		3	10	13	
Deaf (including deaf and dumb and partially deaf)	(1) Suitable for training in a School or Class for the totally deaf, or deaf and dumb	Attending Certified Schools or Classes for the Deaf ...	10	11	21
		Attending Public Elementary Schools ...	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	—	—	—
	(2) Suitable for training in a School or Class for the partially deaf	Attending Certified Schools or Classes for the Deaf ...	6	9	15
		Attending Public Elementary Schools ...	—	1	1
At other Institutions ...		—	—	—	
At no School or Institution		—	—	—	
Mentally Defective	Feebleminded (cases not notifiable to the Local Control Authority)	Attending Certified Schools for Mentally Defective Children ...	82	56	138
		Attending Public Elementary Schools ...	2	5	7
		At other Institutions ...	12	—	12
		At no School or Institution	15	7	22
	Notified to the Local Control Authority during the year	Feebleminded ...	14	13	27
		Imbeciles ...	10	4	14
Idiots ...		1	—	1	
Epileptics	Suffering from severe Epilepsy	Attending Certified Special Schools for Epileptics ...	3	2	5
		In Institutions other than Certified Special Schools	2	—	2
		Attending Public Elementary Schools ...	—	—	—
		At no School or Institution	5	2	7
	Suffering from Epilepsy which is not severe	Attending Public Elementary Schools ...	6	2	8
		At no School or Institution	—	3	3

TABLE III—*continued.*

			Boys	Girls	Total
Physically Defective	Infectious Pulmonary and Glandular Tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ... ..	—	5	5
		At other Institutions ...	—	—	—
		At no School or Institution	—	2	2
	Non-infectious but active Pulmonary and Glandular Tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ... ..	21	17	38
		At Certified Residential Open-air Schools... ..	—	—	—
		At Certified Day Open-air Schools ... ..	—	—	—
		At Public Elementary Schools ... ..	—	—	—
		At other Institutions ...	—	—	—
		At no School or Institution	3	—	3
	Delicate children (e.g., pre- or latent tuberculosis, malnutrition, debility, anæmia, etc.)	At Certified Residential Open-air Schools... ..	20	20	40
		At Certified Day Open-air Schools ... ..	268	243	511
		At Public Elementary Schools ... ..	358	342	700
		At other Institutions ...	—	1	1
		At no School or Institution	19	26	45
	Active non-pulmonary tuberculosis	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board ... ..	4	1	5
		At Public Elementary Schools ... ..	—	—	—
		At other Institutions ...	4	2	6
		At no School or Institution	3	3	6
	Crippled Children (other than those with active tuberculous disease) e.g., children suffering from paralysis, etc., and including those with severe Heart Disease	At Certified Hospital Schools ... ..	—	—	—
At Certified Residential Cripple Schools ... ..		—	—	—	
At Certified Day Cripple Schools ... ..		124	96	220	
At Public Elementary Schools ... ..		4	1	5	
At other Institutions ...		2	3	5	
	At no School or Institution	4	2	6	

TABLE IV.  
RETURN OF DEFECTS TREATED DURING THE YEAR ENDED  
31st DECEMBER, 1930.

TREATMENT TABLE.

GROUP I.—Minor Ailments (excluding Uncleanliness, for which see Group V).

Disease or Defect	Number of Defects treated, or under treatment during the year		
	Under the Authority's Scheme	Other- wise	Total
Skin :—			
Ringworm, Scalp ... ..	99	—	99
Ringworm, Body ... ..	93	2	95
Scabies ... ..	188	1	189
Impetigo ... ..	1434	21	1455
Other Skin Diseases ... ..	673	40	713
Minor Eye Defects :—			
(External and other, but excluding cases falling in Group II) ... ..	817	14	831
Minor Ear Defects ... ..	775	32	807
Miscellaneous :—			
(e.g., Minor Injuries, Bruises, Sores, Chil- blains, etc.) ... ..	6181	8	6189
Totals ... ..	10322	118	10440

TABLE IV—*continued.*

## SECONDARY SCHOOLS.

Disease or Defect	Number of Defects treated, or under treatment during the year		
	Under the Authority's Scheme	Other-wise	Total
Skin :—			
Ringworm, Scalp ... ..	2	—	2
Ringworm, Body ... ..	4	—	4
Scabies ... ..	1	—	1
Impetigo ... ..	21	1	22
Other Skin Diseases ... ..	68	14	82
Minor Eye Defects :—			
(External and other, but excluding cases falling in Group II) ... ..	30	—	30
Minor Ear Defects ... ..	34	8	42
Miscellaneous :—			
( <i>e.g.</i> , Minor Injuries, Bruises, Sores, Chilblains, etc.) ... ..	208	3	211
Totals ... ..	368	26	394

GROUP II—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme	Other-wise	Total
Errors of Refraction (including Squint) (Operations for Squint are recorded separately in the Body of the Report) ... ..	2806	46	5	2857
Other Defect or Disease of the Eyes (excluding those recorded in Group I) ... ..	8	—	—	8
Totals ... ..	2814	46	5	2865

TABLE IV—*continued.*GROUP II.—(*Cont.*).

Total number of children for whom spectacles were prescribed :—

(a) Under the Authority's Scheme	...	...	...	2371
(b) Otherwise	...	...	...	40

Total number of children who obtained or received spectacles :—

(a) Under the Authority's Scheme	...	...	...	2337
(b) Otherwise	...	...	...	40

## SECONDARY SCHOOLS.

Defect or Disease	Number of Defects dealt with			
	Under the Authority's Scheme	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme	Other-wise	Total
Errors of Refraction (including Squint) (Operations for Squint are recorded separately in the Body of the Report) ... ..	570	34	11	615
Other Defect or Disease of the Eyes (excluding those recorded in Group I) ... ..	—	—	—	—
Total ... ..	570	34	11	615

Total number of children for whom spectacles were prescribed :—

(a) Under the Authority's Scheme	...	...	...	400
(b) Otherwise	...	...	...	37

Total number of children who obtained or received spectacles :—

(a) Under the Authority's Scheme	...	...	...	393
(b) Otherwise	...	...	...	37

TABLE IV—*continued.*

## GROUP III—Treatment of Defects of Nose and Throat.

Received Operative Treatment			Received Other Forms of Treatment	Total Number Treated
Under the Authority's Scheme in Clinic or Hospital	By Private Practitioner or Hospital, apart from the Authority's Scheme	Total		
934	23	957	1436	2393

## SECONDARY SCHOOLS.

Received Operative Treatment			Received Other Forms of Treatment	Total Number Treated
Under the Authority's Scheme in Clinic or Hospital	By Private Practitioner or Hospital, apart from the Authority's Scheme	Total		
27	—	27	91	118

## GROUP IV—Dental Defects.

## ELEMENTARY SCHOOLS.

(1) Number of children who were :—

(a) Inspected by the Dentist:

		<i>Age</i>				
		3	..	373	} Total 22157	
		4	...	1089		
		5	...	2274		
		6	...	2436		
		7	...	2712		
		8	...	2842		
		9	...	2917		
		10	...	2706		
		11	...	1516		
		12	...	1395		
		13	...	1614		
		14	...	283		
	Routine Age Groups					
	Specials	...	...	...		4288
	Grand Total	...	...	...	<u>26445</u>	

TABLE IV—*continued.*GROUP IV—Dental Defects (*continued*).

(b)	Found to require treatment	...	...	21275
(c)	Actually treated	...	...	9641
(d)	Re-treated during the year as the result of periodical examination	...	...	1977
(2)	Half-days devoted to Inspection	...	222	
	Treatment	...	1357	
			—	1579
(3)	Attendances made by children for treatment			11518
(4)	Fillings, Permanent Teeth	...	3715	
	Temporary Teeth	...	1072	
			—	4787
(5)	Extractions, Permanent Teeth	...	3173	
	Temporary Teeth	...	16460	
			—	19633
(6)	Administrations of general anæsthetics for extractions	...	...	2037
(7)	Other Operations, Permanent Teeth	...	205	
	Temporary Teeth	...	343	
			—	548

## SECONDARY SCHOOLS.

(1) Number of children who were :—

(a) Inspected by the Dentist :—

		Age		
	Routine Age Groups	10	...	128
		11	...	182
		12	...	207
		13	...	201
		14	...	209
		15	...	236
		16 and over	...	92
			Total	1253
Specials	...	...	...	422
	Grand Total	...	...	1677

(b)	Found to require treatment	...	1449
(c)	Actually treated	...	1104
(d)	Re-treated during the year as the result of periodical examination	...	507

(2)	Half-days devoted to Inspection	...	10
	Treatment	...	130
			—
			140

(3) Attendances made by children for treatment		1611
(4) Fillings, Permanent Teeth ... ..	1853	
Temporary Teeth... ..	5	
	—	1858
(5) Extractions, Permanent Teeth ... ..	900	
Temporary Teeth ... ..	286	
	—	1186
(6) Administrations of general anæsthetics for extractions ... ..		203
(7) Other Operations, Permanent Teeth ...	87	
Temporary Teeth ...	24	
	—	111

## GROUP IV—Dental Defects.

## Special Schools.

(1) Number of children who were:—		
(a) Inspected by the Dentist .. ..	357	
(b) Found to require treatment .. ..	314	
(c) Actually treated .. ..	314	
(d) Number re-treated .. ..	11	
(2) Half-days devoted to Inspection and Treatment ..	66	
(3) Total Cases treated .. ..	325	
(4) Fillings: Permanent Teeth .. ..	255	
Temporary Teeth .. ..	28	
	—	283
(5) Extractions: Permanent Teeth .. ..	63	
Temporary Teeth .. ..	311	
	—	374
(6) Administrations of general anæsthetics for extractions		20
(7) Other Operations: Permanent Teeth ..	52	
Temporary Teeth ..	41	
	—	93

NOTE.—Of the 314 children found to require treatment 294 were treated at school and the remaining twenty were treated under general anæsthetics at the Central Clinic.

## GROUP V—Uncleanliness and Verminous Conditions.

(1) Average number of visits per school made during the year by the School Nurses ... ..	17.17
(2) Total number of examinations of children in the School by the School Nurses ... ..	190233
(3) Number of individual children found unclean ... ..	7255
(4) Number of children cleansed under arrangements made by the Local Education Authority ... ..	241
(5) Number of cases in which legal proceedings were taken :—	
(a) Under the Education Act, 1921 ... ..	—
(b) Under the School Attendance Byelaws ... ..	—

TABLE V. PREVIOUS MEDICAL HISTORY.  
ENTRANTS.

	Three Years		Four Years		Five Years		Six Years	
	Males		Males		Males		Males	
	No.	%	No.	%	No.	%	No.	%
Number examined :—								
Males 1991, Females 1930 ;	209	183	466	458	911	906	405	383
Total ... 3921								
Measles ...	86	41.1	239	51.3	524	57.5	254	62.7
Whooping Cough ...	52	24.9	159	34.1	337	35.8	163	40.2
Scarlet Fever ...	10	4.8	32	6.9	63	6.9	42	10.4
Diphtheria ..	2	1.0	6	1.3	14	1.5	8	2.0
Mumps ...	6	2.9	28	6.0	85	9.3	47	11.6
Chicken Pox...	43	20.6	86	18.5	232	25.5	114	28.1
Vaccinia ...	65	31.1	112	24.0	247	27.1	105	25.9
Typhoid Fever ...	—	—	—	—	1	0.1	1	0.2
Pneumonia ...	14	6.7	31	6.7	78	8.6	38	9.4
Bronchitis ...	18	8.6	50	10.7	107	11.7	51	12.6
Rheumatism ...	—	—	2	0.4	2	0.2	3	0.7
Tuberculosis...	—	—	—	—	1	0.1	1	0.1



TABLE VII.  
AVERAGE HEIGHTS AND WEIGHTS. ENTRANTS.

Age	Number Examined		Males		Females	
	Males	Females	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.
3	209	183	95.5	15.9	95.1	15.6
4	466	458	99.5	17.0	100.6	16.7
5	911	906	106.0	18.5	106.5	17.8
6	405	383	111.6	20.3	110.6	19.7

TABLE VIII.  
PARENTS PRESENT AT MEDICAL INSPECTION.

Group	MALES			FEMALES		
	Number of Children Examined	Number of Parents Present	Percentage of Parents Present	Number of Children Examined	Number of Parents Present	Percentage of Parents Present
Entrants ...	1991	1636	82.2	1930	1615	83.7
Intermediates	1979	1365	69.0	1961	1393	71.0
Leavers ...	992	320	32.3	957	608	63.5
Other Ages	487	270	55.4	484	307	63.4
Junior Scholarships...	781	564	72.2	759	645	85.0
Secondary Schools ...	2081	23	1.1	1782	349	19.6
Totals ...	8311	4178	50.3	7873	4917	62.5

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