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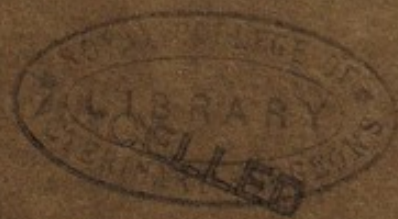
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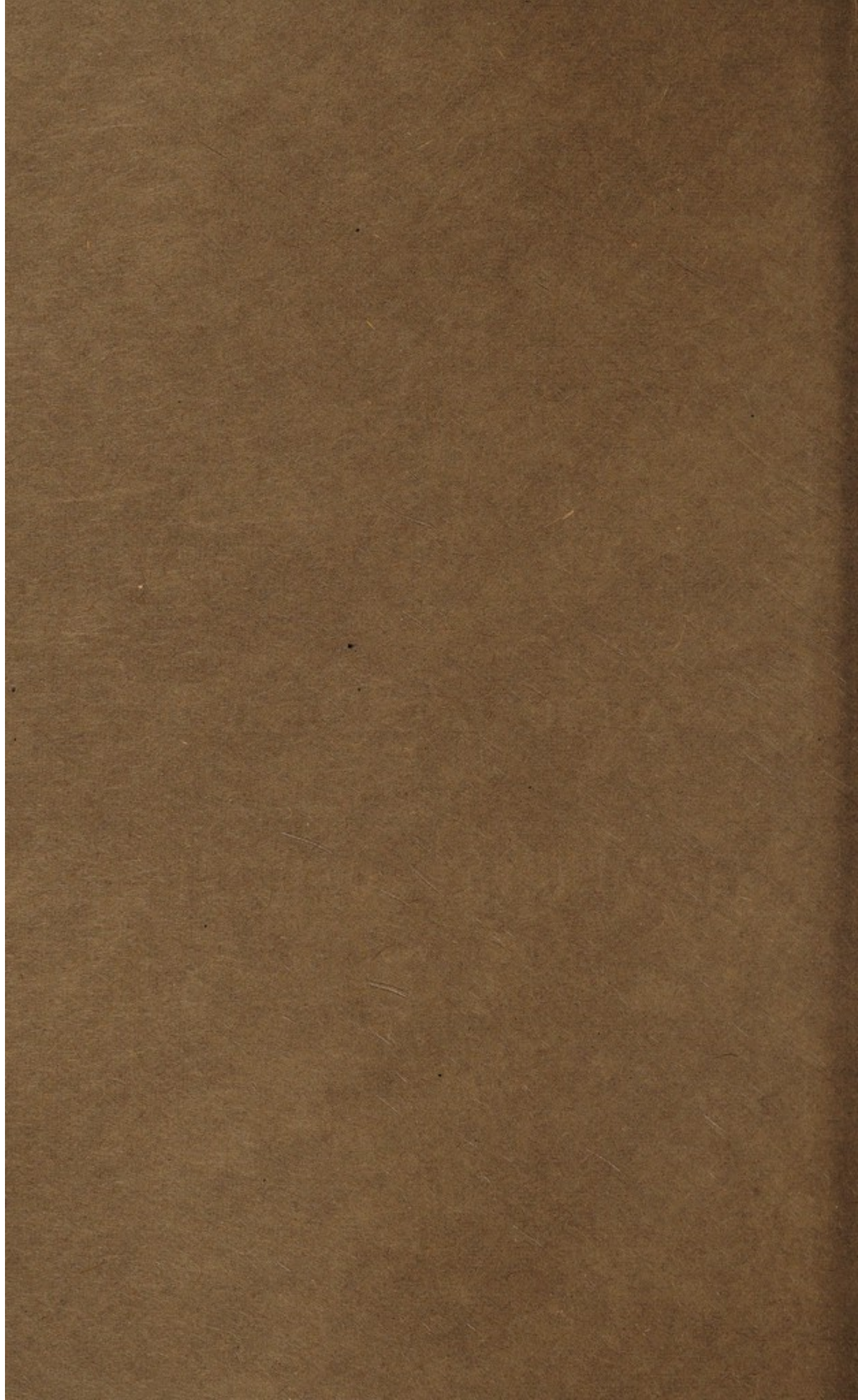
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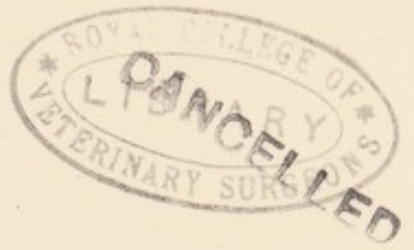
OF THE

MEDICAL OFFICER OF HEALTH

For the Year

1922.





CITY OF LEEDS.

REPORT

ON THE

Health and Sanitary Administration

OF THE CITY

FOR THE YEAR 1922.

BY

J. JOHNSTONE JERVIS, M.D., D.P.H.,

Medical Officer of Health.

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"	B. GREEN.		

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Councillor	H. G. MARSHALL.	Councillor	B. GREEN.
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MATERNITY AND CHILD WELFARE.

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Councillor	C. H. MOORHOUSE.	Councillor	J. R. CHAPPELL.
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Councillor	H. G. MARSHALL.	Councillor	B. GREEN.
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"	B. GREEN.		

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Councillor	R. H. BLACKBURN.	Alderman	L. OWEN.
"	MAUD DIGHTAM.	Councillor	D. B. FOSTER.
"	L. BATHURST	Mrs.	HOYLAND SMITH.
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Representing Leeds Day Nurseries Association :

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Mrs. G. HALBOT.

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Assistant Medical Officer of Health ..	H. C. JENNINGS, M.B., B.S., M.R.C.S., D.P.H.
Assistant Medical Officer of Health for Maternity and Child Welfare and Medical Officer of Infants' Hospital	NORA F. SMITH, M.B., B.S., D.P.H.
Assistant Medical Officers for Maternity and Child Welfare.	MARION E. MACKENZIE, M.B., Ch.B. MAY I. T. MELDRUM, M.B., Ch.B., D.P.H. CECILIA SHISKIN, B.A., M.B., Ch.B. HARRY M. HOLT, M.B., Ch.B.
Clinical Tuberculosis Officer ..	H. de CARLE WOODCOCK, M.D., M.R.C.S., M.R.C.P. (Edin.), D.P.H.
Assistant Tuberculosis Officer ..	Z. P. FERNANDEZ, M.D., Ch.B.
Medical Superintendents— Infectious Disease Hospital (Seacroft).	A. E. PEARSON, M.R.C.S., L.R.C.P.
Killingbeck Sanatorium ..	W. A. TODD, M.B., Ch.B.
Gateforth Sanatorium ..	H. M. HOLT, M.R.C.S., L.S.A., D.P.H.
Venereal Diseases Officer ..	J. P. BIBBY, M.B., Ch.B.
City Bacteriologist ..	J. W. McLEOD, M.B., Ch.B.
Veterinary Assistant ..	J. A. DIXON, M.R.C.V.S.
City Analyst ..	B. A. BURRELL, F.I.C., F.C.S., M.R.C.S.
Chief Sanitary Inspector ..	H. C. JENNINGS, M.B., B.S., M.R.C.S., D.P.H.
Divisional Inspectors ..	M. CARTER and J. COUPE.
Removal Officer ..	T. W. OGILVIE.
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Finance ..	J. W. RIDSDALE.
Statistics ..	J. S. HOYLE.
Sanitary ..	A. SPARKS.
Infectious Diseases ..	H. O. PEAKE.

CITY OF LEEDS.

To the Chairman and Members of the Health Committee.

Gentlemen,

The Health of the City was well maintained during 1922, notwithstanding severe epidemics of Scarlet Fever and Measles which together involved a large section of the child population. The mortality from both epidemics was happily very low—not much higher indeed than in an ordinary non-epidemic year. The birth-rate declined to 19.8 whilst the general death-rate and infantile mortality rate rose slightly to 13.9 and 101 respectively, as compared with the figures for the previous year.

The death-rate from Tuberculosis remained practically stationary, though the number of notified cases decreased to some extent. I am not satisfied with the results of the measures adopted by the City to combat this disease, and I hope that you will take an early opportunity of making a complete survey of the whole scheme with a view to ascertaining the causes of failure, and seeing whether improvements cannot be effected.

In other sections of the work good progress was made, and at the end of the year the general sanitary conditions of the City were very satisfactory.

I wish anew to acknowledge my indebtedness to Dr. H. C. Jennings, Dr. Nora F. Smith and Mr. J. A. Dixon for their valuable services in connection with the various departments over which they have supervision, as well as for the help they have afforded me in the compilation of this report. I should also like to pay a tribute of praise and thanks to the other members of the staff of the Public Health Department for their loyal support and good work.

To you, Mr. Chairman, and the other Members of the Health Committee I make grateful acknowledgment of the courtesy and kindness which you have extended to me throughout the year.

I am, Gentlemen,

Your obedient servant,

J. JOHNSTONE JERVIS.

*Public Health Department,
Market Buildings, Leeds,
July, 1923.*

SUMMARY, 1922.

LATITUDE 53.48° North. LONGITUDE 1.32° West.

AVERAGE HEIGHT ABOVE SEA LEVEL 250 feet.

AREA OF CITY 28,089½ Acres.

POPULATION (Registrar-General's estimate) 466,700

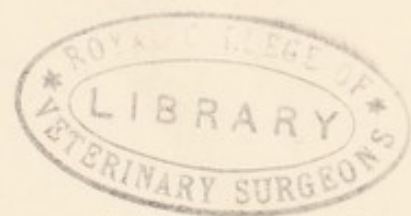
ESTIMATED NUMBER OF HOUSES 114,288

RATEABLE VALUE £2,770,422

SUM REPRESENTED BY A PENNY RATE £10,759

	Average. 1922. 1912-21.	
BIRTH RATE (births per 1,000 living)	19.83	21.14
MARRIAGE RATE (persons married per 1,000 living) ..	17.16	17.78
DEATH RATE (deaths per 1,000 living)	13.88	15.75
NATURAL INCREASE OF POPULATION (Excess of births over deaths in the year)	2,774	2,452
INFANT MORTALITY RATE (Deaths under 1 year per 1,000 births)	101	120
DEATH RATE from Pneumonia and Bronchitis	2.36	2.77
" " Cancer	1.27	1.14
" " Diarrhoea and Enteritis (under 2 years) per 1,000 births	9.94	21.22

	Cases.	Case- rate.	Deaths.	Death rate.
SCARLET FEVER	2,722	5.83	33	.07
DIPHTHERIA	470	1.01	28	.06
TYPHOID FEVER	14	0.03	7	.01
MEASLES	10,078	21.59	152	.33
PULMONARY TUBERCULOSIS	824	1.77	533	1.14
OTHER FORMS OF TUBERCULOSIS	172	0.37	120	0.26



CITY OF LEEDS.

NATURAL AND SOCIAL CONDITIONS.

Area.—28,089 $\frac{3}{4}$ acres.

Population.—The preliminary computation of the population of the City at the 1921 Census was 458,320, which was subsequently adjusted to 465,500. At the middle of 1922 the Registrar General estimated it as 466,700. The final report of the Census of 1921 has not yet been published, and therefore it is impossible to add anything further, regarding the make up of the population, to the details given in my report of last year. It may be said, however, that full advantage has been taken of the offer of the Registrar General to supply Local Authorities in advance with any special information they might desire. This information is now in my hands and is at present being classified and tabulated so as to be available when required for the compilation of statistics or of special reports. The population, 466,700, is made of 219,532 males and 247,168 females, which give a proportion of 1,000 males and 1,126 females as compared with 1,000 to 1,095 in England and Wales at the Census.

The number of houses in the City at the 1911 Census was 111,628, of which 102,514 were inhabited, 7,144 empty and 1,970 occupied though empty on the date of the Census. At the 1921 Census, the number was 111,802, made up of 109,054 occupied, 736 empty, and 2,012 occupied though empty at the time of the Census. Before the publication of the Census figure it was estimated that there were 113,637 houses in the City, and it came as somewhat of a surprise to learn that the estimate had been overstated to the extent of 1,835 houses. It must, however, be explained that it was a matter of considerable difficulty to get at an exact estimate because of the many changes which had taken place since the previous Census, records of which had not been regularly kept particularly during the War period. The conversion of many of the larger

POPULATION IN WARDS.

WARD.	Census, April 2nd, 1911.	Census, June 19th, 1921.	Adjusted population, 1921.	Estimated population middle of 1922.
Central	14,503	12,529	12,725	12,725
North	41,968	42,430	43,095	43,115
North-East ..	36,239	36,020	36,584	36,738
New Ward* ..	..	7,813	7,935	7,920
East	34,701	35,264	35,817	36,032
South	12,562	12,809	13,010	13,111
East Hunslet† ..	33,562	35,166	35,717	36,020
West Hunslet ..	35,766	36,262	36,830	36,946
Holbeck	29,679	29,441	29,902	30,032
Mill Hill	5,856	5,288	5,371	5,346
West	20,553	22,034	22,379	22,406
North-West ..	30,570	31,539	32,033	32,013
Brunswick ..	23,219	23,939	24,314	24,324
New Wortley ..	16,714	17,784	18,063	18,163
Armley & Wortley	37,419	36,787	37,363	37,405
Bramley	23,937	23,489	23,857	23,829
Headingley ..	48,302	49,726	50,505	50,575
City	445,550	458,320	465,500	466,700

*Roundhay, Seacroft, Shadwell, and Crossgates added to Leeds, November, 1912. (1911 Census, 7,398).

†Including Middleton added to Leeds, April 1st, 1920. (1911 Census, 1,207).

houses in and around the centre of the City into flats introduced another factor which added to the difficulty of arriving at a true estimate of the exact number of dwelling houses which are separate structures.

More will be said on this subject in a special section devoted to housing. (See page 132).

The rateable value of the City was £2,770,422, and the sum represented by a penny rate £10,759.

VITAL STATISTICS.

Marriages.—The number of marriages registered during the year was 4,183, which is a decrease of 383 on the figure for the previous year. It should be added that this figure includes marriages

in the registration districts* of Leeds, Hunslet, Holbeck and Bramley. In the absence of accurate figures of population for the districts mentioned, which the Registrar General states are at present unavailable, it is difficult to calculate a marriage rate which can be considered accurate for the City. What I have done is to take the population for the previous year and to estimate the rate on that. Calculated on this basis the rate was 17·2, a decrease of 1·5 per thousand, as compared with the figure for 1921 (18·7). This fall in the marriage rate was fairly general all over the country, and was due largely to economic conditions aggravated to some extent by the continued shortage of houses.

MARRIAGE RATE.

Year.	Leeds.	England and Wales.
1912	16·0	15·5
1913	16·4	15·5
1914	16·6	15·9
1915	20·2	19·5
1916	15·5	14·9
1917	14·2	13·8
1918	15·5	15·3
1919	21·2	19·7
1920	23·5	20·2
1921	18·7	16·9
1922	17·2	15·8

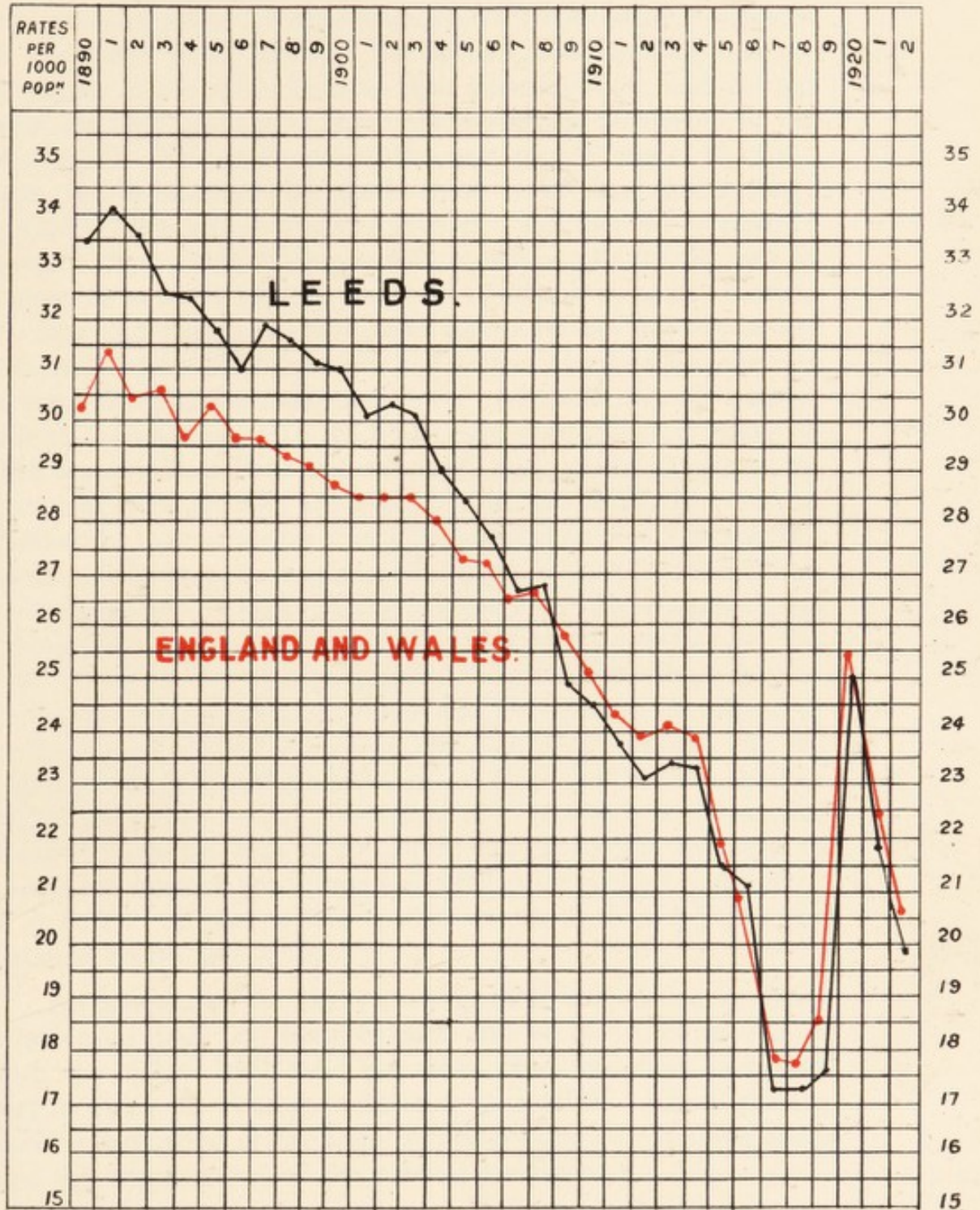
* Registration districts are based on the areas of Poor Law Unions, of which there are four in Leeds, but the boundaries of the Unions do not coincide with those of the City. The whole of the Leeds Union is within the City, but only parts of the Hunslet, Holbeck and Bramley Unions. The Hunslet Union includes Templenewsam and Rothwell, Holbeck includes Churwell, and Bramley Union includes Gildersome.

Births.—The births registered in the City during 1922 numbered 9,500, comprising 4,901 males and 4,599 females. Of these, 189 males and 147 females were born to parents belonging to districts outside the City and have therefore been deducted from the total, whilst to the total have been added 50 males and 39 females born outside but belonging to Leeds families, thus giving a nett total of 9,253 made up of 4,762 males and 4,491 females. Compared with the previous year this is a decrease of 444 males and 447 females, or a total of 891. The birth-rate for the year was 19·8 as compared with 21·8 for the previous year, a fall of 2·0. This is the second year in succession that a decrease—though the drop is not so pronounced as last year—has to be recorded. It would appear, therefore, that we are gradually returning to the low rates recorded during the worst of the war years (1917, 1918 and 1919). In no pre-war year of which we have a record was the rate so low as 19·8, the lowest being 23·1 in 1912, and whilst the difference for the five years before the war between the birth-rate and death-rate averaged 8·5, for the last two years it has averaged 7·1, and last year it was 5·9. The significance of this is that our reserves are slowly being eaten up, and if the fall continues we shall within a few years be drawing upon our capital. The same is true not only of Leeds but of the country as a whole which makes the position all the more serious.

The causes of the continued decline of the birth-rate are undoubtedly largely economic, and as trade revives and prosperity returns to the City the rate of fall may flatten out and be followed by a rise and a gradual return to normal.

In the circumstances how people can talk of birth control and the necessity for the reduction of the birth-rate passes comprehension. One would have thought the experience of France, now reduced to such dire straits as to be under the pitiful necessity, in order to save herself from utter extinction, of offering rewards in order to encourage the birth of children, would have been sufficient warning to those quasi patriots who advocate birth control to pause and ponder lest they bring a like fate upon their own country. To talk of the risks of over-population with a Europe depleted by war, revolution, famine and disease, and other continents calling out for settlers to occupy their land and develop their industries, is childish folly. This Malthusian myth of over-population was exploded long ago,

BIRTH-RATE 1890-1922.



so one thought, but it has been resurrected and to-day is again being made to do service in this anti-social campaign to reduce the birth-rate still further by artificial means. One wonders how the losses of the war are to be made good if birth control is accepted as a universal policy amongst the Nations, and assuming that the promoters of the policy do have their own way, how, and at what point, do they propose to arrest the downward movement of the birth-rate? No one objects to the restriction of the birth of the unfit, but to interfere with the birth of the fit—and this seriously is what is intended—is to invite disaster. Let there be no mistake about it, if the British Empire falls it will not be for the lack of money, as so many seem to fear, but for lack of men, and because its sons and daughters have been influenced by the vapourings of a few seekers after notoriety and have allowed selfish interests to come between them and their duty. And then there is a moral side to the question. To teach men and women how to cover up their sexual indiscretions and excesses is the surest way to introduce a state of moral anarchy and bring ruin on the whole social system. Neither the natural nor the moral law can be flouted with impunity; sooner or later there must come a revulsion with serious consequences to the offenders. Rather what is required in the interest of the Nation and the Race is that every young man and woman at the time of marriage should understand that it will be their duty to parent healthy children. To this end they should be instructed in the proper methods of procreation, not of prevention, and encouraged to preserve their bodies in health so that healthy children may be born of the union. The State also has a duty in the matter, namely, to ensure that every parent has an income sufficient to enable him to maintain himself and family in comfort and health. If it fails to do this, it fails in that on which most depends our national health and welfare.

An analysis of the births showing their distribution in wards is given on page 15, from which it will be seen that the wards with the highest birth-rates are those which are most congested and in which the housing problem is most acute. This is merely another indication of the need of the opening out of these areas and the improvement of the housing conditions.

Details respecting notification and visitation of births are given on page 116.

Birth rate in quarters.—The birth-rate for the first quarter of the year was 21·2, for the second, 20·7, for the third, 19·5, and for the fourth, 17·9. There has therefore been a gradual decrease amounting to an average of 1·1 per thousand in each quarter from the beginning of the year, reaching the very low figure of 17·9 in the last quarter.

Excess of Births over Deaths.—The excess of births over deaths or what is generally spoken of as the “natural increase of population,” was 2,774, as compared with 3,859 for last year, a decrease of 1,085.

BIRTH RATE.

Year.	No. of births.	Birth rate, LEEDS.	England and Wales.
1890-1894	62,270	33·2	30·5
1895-1899	63,873	31·5	29·6
1900-1904	64,791	30·1	28·4
1905-1909	59,117	26·9	26·7
1910-1914	53,267	23·6	24·2
1915	9,877	21·5	21·9
1916	9,432	21·1	20·9
1917	7,566	17·3	17·8
1918	7,392	17·3	17·7
1919	7,564	17·6	18·5
1920	11,229	25·0	25·5
1921	10,144	21·8	22·4
1922	9,253	19·8	20·6

BIRTH RATE IN QUARTERS.

	I.	II.	III.	IV.	Year.
1917	19·2	18·0	16·2	15·7	17·3
1918	17·4	16·8	17·8	17·1	17·3
1919	13·6	14·6	17·5	24·4	17·6
1920	30·1	25·6	23·7	20·8	25·0
1921	21·9	22·4	22·2	20·7	21·8
1922	21·2	20·7	19·5	17·9	19·8

BIRTHS AND BIRTH RATE IN WARDS.

MUNICIPAL WARD.	Estimated Population middle of 1922.	Nett births.	Birth- rate.	Illegiti- mate births.	Percentage of illegitimate births to total births.
Central	12,725	286	22·48	23	8·0
North	43,115	702	16·28	38	5·4
North-East	36,738	768	20·90	43	5·6
New Ward*	7,920	88	11·11	9	10·2
East	36,032	921	25·56	47	5·1
South	13,111	392	29·90	24	6·1
East Hunslet†	36,020	823	22·85	45	5·5
West Hunslet ..	36,946	658	17·81	19	2·9
Holbeck	30,032	692	23·04	44	6·4
Mill Hill	5,346	81	15·15	5	6·2
West	22,406	517	23·07	51	9·9
North-West	32,013	537	16·77	27	5·0
Brunswick	24,324	422	17·35	29	6·9
New Wortley ..	18,163	391	21·53	22	5·6
Armley and Wortley	37,405	651	17·40	33	5·1
Bramley	23,829	396	16·62	11	2·8
Headingley	50,575	928	18·35	41	4·4
City	466,700	9,253	19·83	511	5·5

*Roundhay, Seacroft, Shadwell, and Crossgates. †Including Middleton.

Illegitimate births.—Of the 9,253 nett births registered 8,742 (4,498 males, 4,244 females) or 94·5 per cent. were legitimate and 511 (264 males, 247 females) or 5·5 per cent. illegitimate. The ratio of illegitimate to legitimate births is practically the same as it was last year, namely 1 to 17, though the rate per thousand of the population shows a slight decrease.

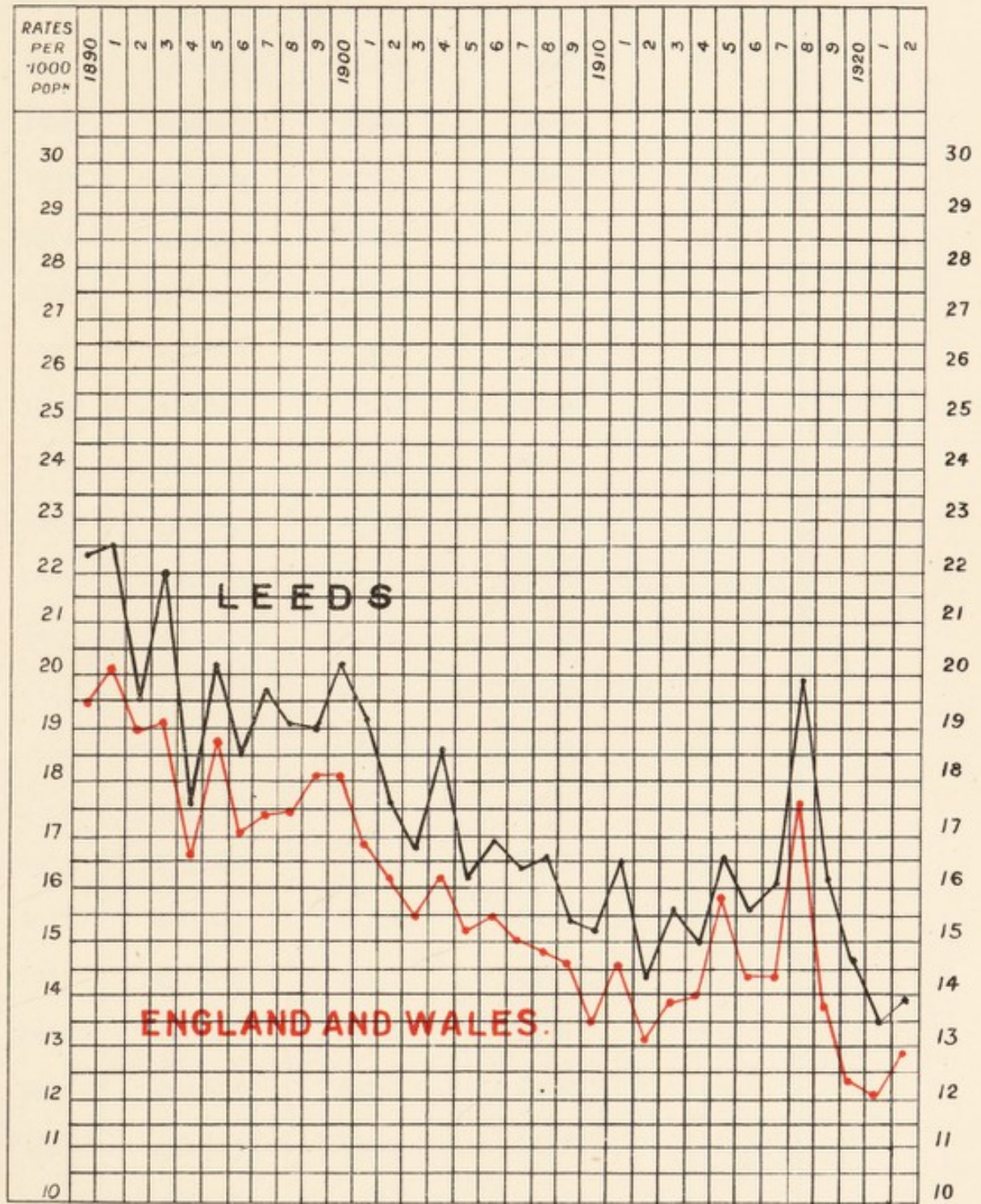
YEAR.	Illegitimate births.	Percentage of births registered.	Rate per 1,000 estimated population.
1917 ..	576	7·6%	1·31
1918 ..	528	7·1%	1·23
1919 ..	567	7·5%	1·32
1920 ..	631	5·6%	1·41
1921 ..	565	5·6%	1·21
1922 ..	511	5·5%	1·09

Further reference is made to this on page 109.

Deaths.—During the year, a total of 6,589 deaths, comprising 3,415 males and 3,174 females, was registered in the City. From this total one must deduct the deaths of 425 non-residenters (275 males and 150 females) who died in the City, and add the deaths of 315 Leeds residents (163 males and 152 females) who died outside the City, giving a nett total of 6,479 deaths (3,303 males and 3,176 females). The gross death-rate for the year was 14·1 and the nett 13·9, as compared with 13·8 and 13·5 for the previous year, and 16·2 and 16·1 for the previous five years. There was, therefore, a loss to the City in 1922 of 179 lives more than in 1921, though a saving of 1,026 on the average for the previous five years and 872 on that of the previous ten years.

Deaths in quarters.—The deaths for the four quarters were as follows :—first, 2,014 ; second, 1,696 ; third, 1,248 ; fourth, 1,521

DEATH RATE, 1890 - 1922.



ANNUAL DEATHS AND DEATH RATE.

Year.	Population.	Nett deaths.	Death-rate LEEDS.	Death-rate England and Wales.
1901	429,383	8,204	19·2	16·9
1902	431,043	7,699	17·6	16·3
1903	432,703	7,263	16·8	15·5
1904	434,363	8,039	18·6	16·3
1905	436,023	7,047	16·2	15·3
1906	437,683	7,350	16·9	15·5
1907	439,343	7,167	16·4	15·1
1908	441,003	7,430	16·6	14·8
1909	442,663	6,806	15·4	14·6
1910	444,323	6,711	15·2	13·5
1911	445,983	7,331	16·5	14·6
1912	447,746	6,396	14·3	13·3
1913	457,295	7,237	15·6	13·8
1914	459,260	6,885	15·0	14·0
1915	459,260	7,609	16·6	15·7
1916	446,349	6,946	15·6	14·4
1917	438,254	7,052	16·1	14·4
1918	427,589	8,529	19·9	17·6
1919	430,834	6,992	16·2	13·7
1920	448,913	6,591	14·7	12·4
1921	465,500	6,285	13·5	12·1
1922	466,700	6,479	13·9	12·9

DEATHS AND DEATH RATE IN WARDS.

MUNICIPAL WARD.	Estimated population middle of 1922.	Nett deaths.	Death-rate.
Central	12,725	214	16·82
North	43,115	533	12·36
North-East	36,738	483	13·15
New Ward*	7,920	78	9·85
East.. ..	36,032	628	17·43
South	13,111	231	17·62
East Hunslet†	36,020	466	12·94
West Hunslet	36,946	409	11·07
Holbeck	30,032	472	15·72
Mill Hill	5,346	79	14·78
West	22,406	403	17·99
North-West	32,013	457	14·28
Brunswick	24,324	307	12·62
New Wortley	18,163	277	15·25
Armley and Wortley	37,405	493	13·18
Bramley	23,829	323	13·55
Headingley.. ..	50,575	626	12·38
City	466,700	6,479	13·88

*Roundhay, Seacroft, Shadwell, and Crossgates. †Including Middleton.

and the death-rates corresponding are given in the accompanying table. The high rate of death in the first quarter was due to the increased incidence of respiratory troubles chiefly amongst infants and young children brought about by the inclement spring weather.

DEATH RATE IN QUARTERS.

	I.	II.	III.	IV.	Year.
1917	19.1	17.3	13.6	14.5	16.1
1918	19.7	16.0	14.3	29.8	19.9
1919	25.5	13.1	11.3	15.2	16.2
1920	20.6	13.9	11.2	13.1	14.7
1921	14.5	12.5	11.3	15.8	13.5
1922	17.5	14.6	10.6	12.9	13.9

Causes of death.—The principal causes of death, in order of numerical importance, were heart disease, bronchitis, cancer, phthisis, pneumonia, congenital conditions and nephritis. I must again call attention to the heavy loss of life caused by the respiratory group of diseases, including phthisis and influenza, which during the year amounted to no less than 29.2 per cent. of the total recorded deaths, which is 0.7 per cent. below last year's figure. There was a time when phthisis as a cause of death exceeded cancer in importance, now cancer is taking the lead, whilst phthisis is gradually coming to occupy a lower place. The comparatively heavy mortality from pneumonia and bronchitis is to be deplored. Both diseases are to a great extent controllable, and yet, year after year, they appear amongst the chief causes of mortality in all the age groups from infancy upwards. Why should this be so? I would suggest that one very important cause is the variable conditions under which the majority of the people live and work. At one hour they are in the hot, moist, often polluted atmosphere of a living room, workshop or place of assembly, and the next they are in the open street, either hanging about aimlessly or standing at one of the tramway barriers or perchance in a theatre queue, exposed to conditions which are quite the opposite of those they have just left. Such rapid variation is bound to have a disturbing effect on the heat

PRINCIPAL CAUSES OF DEATH.

Death rate.	DISEASES.	No. of deaths in 1922 (nett).	Increase or decrease compared with 1921.
0.01	Enteric Fever	7	+ 5
..	Smallpox .. ..	..	..
0.33	Measles	152	+ 147
0.07	Scarlet Fever	33	+ 19
0.25	Whooping Cough	115	+ 43
0.06	Diphtheria and Croup ..	28	- 10
0.36	Influenza	169	+ 5
0.02	Erysipelas	11	+ 1
1.14	Phthisis (pulmonary tuberculosis)	533	+ 14
0.08	Tub. Meng. and Acute Hydroceph.	38	- 1
0.18	Other Tuberculous Diseases ..	82	- 1
1.27	Cancer, Malignant Disease ..	595	+ 41
0.08	Rheumatic Fever	37	+ 3
0.16	Meningitis	76	+ 4
1.44	Heart Disease	672	+ 34
1.28	Bronchitis	596	+ 40
1.08	Pneumonia (all forms) ..	502	- 60
0.19	Other diseases of respiratory organs	90	+ 12
0.23	Diarrhœa and Enteritis ..	108	- 110
0.04	Appendicitis and Typhlitis ..	17	- 8
0.04	Cirrhosis of Liver	17	- +
0.01	Alcoholism	5	- 2
0.44	Nephritis and Bright's Disease	206	- 29
0.03	Puerperal Fever	14	+ 6
0.04	Other accidents and diseases of Pregnancy and Parturition	18	- 12
0.73	Congenital Debility and Malformation including Premature Birth	339	- 18
0.41	Violent deaths, excluding Suicide	190	- 10
0.10	Suicides	48	+ 15
3.80	Other Defined Diseases ..	1,772	+ 62
0.02	Diseases ill-defined or unknown	9	+ 4
13.88		6,479	+ 194

mechanism of the body and to lower its power of resistance to disease. There can be no doubt that much of the illness and incapacity, resulting from respiratory infections, is attributable to the breathing of overheated air fouled with smoke, dust and other noxious vapours. The researches of Professor Leonard Hill have proved this beyond question, and certain perfunctory experiments which I have had conducted in one or two districts of the City bear out the accuracy of his observations. If we are to succeed in reducing the respiratory death-rate, the public must realize the necessity of accustoming themselves to lower and more equable temperatures, both inside and outside the home. They must strive for a cleaner atmosphere and pay greater attention to clothing and diet, both of which play an important part in the control of lung infections.

With regard to cancer, I shall have something more to say when I come to deal with this subject specifically on page 71.

Deaths in Age Groups.—As in the former year, the majority of deaths took place in the older age groups, that is, from forty-five to sixty-five and sixty-five upwards. Together these two groups accounted for 58·7 per cent. of the total mortality. Next in importance comes the 0-1 group, which accounted for 14·4 per cent. One of the most gratifying results of the efforts which have been made during the last two decades to improve the health of the community is the increased saving of life in the younger age groups. The movement is in the right direction and one hopes will be continued. It is, however, a matter of some concern that so many lives are lost between forty-five and sixty-five, which is appropriately termed the “prime of life,” when man reaches the high water mark of his usefulness to the community, and it is a misfortune that we have been able to do so little to reduce the wastage of life at this period. Cancer is responsible for a good deal of the loss, indeed, because of the increased mortality from this disease after forty-five, this period of life has been termed the “cancer age.”

The deaths of children under one year numbered 935, which is equal to an infantile mortality rate of 101 per thousand births.

For further particulars of infant mortality see pages 103 to 110.

DEATHS IN AGE GROUPS (NETT), 1912-22.

Together with the percentage of the total deaths, represented by each group
(in italics).

Year.	Under 1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
1912	1,051 <i>16.4%</i>	311 <i>4.9%</i>	291 <i>4.5%</i>	286 <i>4.5%</i>	303 <i>4.7%</i>	906 <i>14.2%</i>	1,502 <i>23.5%</i>	1,746 <i>27.3%</i>	6,396
1913	1,469 <i>20.3%</i>	419 <i>5.8%</i>	344 <i>4.8%</i>	265 <i>3.7%</i>	292 <i>4.0%</i>	946 <i>13.1%</i>	1,684 <i>23.3%</i>	1,818 <i>25.1%</i>	7,237
1914	1,324 <i>19.2%</i>	469 <i>6.8%</i>	358 <i>5.2%</i>	269 <i>3.9%</i>	276 <i>4.0%</i>	923 <i>13.4%</i>	1,605 <i>23.3%</i>	1,661 <i>24.1%</i>	6,885
1915	1,253 <i>16.5%</i>	439 <i>5.8%</i>	389 <i>5.1%</i>	260 <i>3.4%</i>	318 <i>4.2%</i>	965 <i>12.7%</i>	1,850 <i>24.3%</i>	2,135 <i>28.0%</i>	7,609
1916	1,216 <i>17.5%</i>	391 <i>5.6%</i>	285 <i>4.1%</i>	240 <i>3.5%</i>	287 <i>4.1%</i>	885 <i>12.7%</i>	1,683 <i>24.2%</i>	1,959 <i>28.2%</i>	6,946
1917	1,023 <i>14.5%</i>	400 <i>5.7%</i>	422 <i>6.0%</i>	331 <i>4.7%</i>	302 <i>4.3%</i>	835 <i>11.8%</i>	1,734 <i>24.6%</i>	2,005 <i>28.4%</i>	7,052
1918	984 <i>11.5%</i>	474 <i>5.6%</i>	743 <i>8.7%</i>	514 <i>6.0%</i>	579 <i>6.8%</i>	1,214 <i>14.2%</i>	2,007 <i>23.5%</i>	2,014 <i>23.6%</i>	8,529
1919	899 <i>12.9%</i>	239 <i>3.3%</i>	298 <i>4.3%</i>	299 <i>4.3%</i>	344 <i>4.9%</i>	957 <i>13.7%</i>	1,780 <i>25.4%</i>	2,176 <i>31.2%</i>	6,992
1920	1,232 <i>18.7%</i>	255 <i>3.9%</i>	283 <i>4.3%</i>	283 <i>4.3%</i>	291 <i>4.4%</i>	844 <i>12.8%</i>	1,572 <i>23.9%</i>	1,831 <i>27.8%</i>	6,591
1921	997 <i>15.9%</i>	278 <i>4.4%</i>	130 <i>2.1%</i>	202 <i>3.2%</i>	297 <i>4.7%</i>	765 <i>12.2%</i>	1,562 <i>24.9%</i>	2,054 <i>32.7%</i>	6,285
1922	935 <i>14.4%</i>	283 <i>4.4%</i>	211 <i>3.3%</i>	198 <i>3.1%</i>	282 <i>4.4%</i>	766 <i>11.8%</i>	1,661 <i>25.6%</i>	2,143 <i>33.1%</i>	6,479

Comparative Statistics of the larger English Cities, 1922.

	RATE PER 1,000 POPULATION.					DEATH RATE PER 1,000 BIRTHS.	
	Population.	Birth Rate.	Death Rate.	Phthisis. Death Rate.	Other Tuberculosis. Rate.	Deaths under One Year.	Diarrhoea and Enteritis under 2.
London	4,534,230	21·0	13·3	1·04	0·20	74	7·1
Birmingham . .	927,844	21·5	12·1	0·97	0·16	86	8·5
Liverpool . . .	823,095	26·1	14·6	1·3	0·3	96	12·6
Manchester . . .	746,986	21·2	14·3	1·27	0·33	96	11·3
Sheffield . . .	522,600	20·7	11·7	1·03	0·19	80	7·2
Leeds	466,700	19·8	13·9	1·17	0·26	101	9·9
Bristol	383,900	19·9	13·3	1·05	0·25	74	6·8
Hull	294,000	24·2	14·3	1·02	0·35	106	10·5
Bradford . . .	291,300	17·9	14·0	0·77	0·25	87	4·4
Newcastle . . .	281,600	24·8	14·2	1·14	0·35	92	8·0
Nottingham . .	267,900	21·1	12·4	0·98	0·26	82	8·5

SANITARY CIRCUMSTANCES.

Drainage and Sewerage.—To alleviate the serious conditions arising from unemployment in the City during 1922 the Corporation endeavoured to find employment for as many men as possible on constructional work of various kinds in connection with the great Municipal services, such for example, as that in connection with the drainage and sewerage of the City. Branch sewers have been laid in the following districts of the City :—Bramley, Stanningley, Farnley, Middleton, Cross Gates and Shadwell, the completion of which will enable a large number of privy middens and cesspools in these areas to be abolished. The total length of these branch sewers amounted approximately to 4,500 yards.

Closet Accommodation.—During the year 249 privies and 17 pail closets were dealt with, of which 204 privies and 16 pail closets were converted into pedestal water closets and the remaining 45 privies and 1 pail closet entirely abolished. Trough closets to the number of 197 were converted into modern water closets. These figures, which are a distinct improvement on those for 1921, may be taken as an index of the activities of the Health Department in this most important branch of sanitary administration. The position with regard to the various types of sanitary conveniences in the City on December 31st, 1922 was privy middens, 651; pail closets, 111; trough closets, 9,324; and approximately 92,000 water closets. In addition 6 cesspools were abolished, and 335 houses were properly drained and connected to the sewers.

Scavenging.—The amount of household refuse including nightsoil collected by the Cleansing Department during the year was 173,587 tons, of which 74,122 tons were dealt with at the destructors, 99,259 tons in tips and for agricultural purposes, and 206 tons sold as manure to farmers.

The practice of disposing of household refuse on tips near inhabited houses cannot be too strongly condemned. Not only is there a danger of fire, which when once started is extremely difficult to control, but these heaps of refuse form an ideal breeding-place for vermin and are one of the chief agents which contribute to the fly nuisance. They are also a source of nuisance and offence as it is impossible to prevent soiled paper, dust rags, etc., being blown or carried considerable distances from the site of the tips and deposited in the yards and gardens of private houses.

Ashpits and Ashbins.—The question of the provision of ashbins in connection with cottage property was again raised by the Property Owners' Association during the year, and a deputation from that body waited upon the Health Committee and stated their objections to the existing method of allocation. As a result of the Committee's re-consideration of the matter the following resolutions were passed :—

“ That the Medical Officer of Health be instructed to
 “ require the provision of one bin for each house where the
 “ same is necessary and if there is accommodation available
 “ and that the resolution of this Committee of the 15th
 “ September last on the subject, approved by the Council on
 “ the 5th October, be varied accordingly.”

“ That the Association be informed that it will facilitate
 “ the work of this Committee if persons upon whom preliminary
 “ notices are served, requiring the provisions of ashbins, and
 “ who consider that excessive provision is demanded, will
 “ notify in writing to the Medical Officer of Health their
 “ objection before the expiry of the notice.”

The practical outcome is that the Department has been able to continue its policy of requiring the provision of one bin for each house excluding of course small cottage property where the available space only permits of one bin to two houses.

Sunken ashpits to the number of 224 were abolished.

Ashes accommodation in the shape of 4,416 metal ashbins was provided for 6,734 houses. Owing to default on the part of the owners of certain properties 488 metal ashbins were supplied by the Corporation, and the owners charged with the cost of the same. It might be well to remind the public that the life of a bin depends (*a*) on the quality of the bin and (*b*) on the way it is treated. Numerous householders are still of the opinion that an ashbin is a receptacle for the reception of any and every form of refuse, and as a result the interiors of many bins are practically always wet, which accounts for their rapid deterioration. An ashbin, as its name implies, is primarily for ashes, though other dry refuse may be deposited therein. Under no circumstances should organic matter (animal or vegetable) of a putrescible nature be put in an ashbin. It should be burnt and only the residual ash put in the bin.

SANITARY INSPECTION OF DISTRICTS.

	NORTH.	SOUTH.	City Total.
Houses completely examined for—			
Infectious disease	1,944	1,259	3,203
Alleged nuisances	43	199	242
House to house work ..	65	300	365
Premises examined only as to—			
Occupants	44	35	79
Alleged nuisances	2,262	6,102	8,364
Drainage	271	388	659
Nuisances found in above or other houses—			
Dirty houses	258	171	429
Overcrowded houses	77	40	117
Dampness or dilapidation ..	2,796	3,323	6,119
Drain or closet defects ..	1,942	2,416	4,358
Defective ashpits or bins ..	4,475	2,966	7,441
Other nuisances	4,405	2,351	6,756
Outside nuisances found (gullies, etc.)	1,452	1,137	2,589
Total nuisances found ..	15,405	12,404	27,809
Additional visits paid to houses for—			
Infectious disease	2,649	1,822	4,471
Completion of reports ..	470	1,951	2,421
To inspect work in progress	2,059	1,810	3,869
Other causes	25,382	10,403	35,785
Drains tested	2,912	2,504	5,416
Drains found defective	412	350	762

SANITARY WORKS CARRIED OUT DURING 1922.

NATURE OF WORK.	NORTH.	SOUTH.	City Total.
Houses cleansed	127	100	227
Overcrowded houses dealt with	40	22	62
Defective spouting, &c., repaired	3,177	2,802	5,979
Urinals cleansed or repaired ..	22	19	41
Sunken ashpits abolished ..	118	106	224
Privies or pail closets abolished or converted into water closets	126	140	266
Waterclosets erected	39	49	88
Houses provided with suitable ashes accommodation ..	3,871	2,863	6,734
Ashbins provided	2,804	1,612	4,416
Trough closets converted into W.C.'s	176	21	197
Closets cleansed (limewashed), etc.	263	70	333
Drainage works carried out ..	682	544	1,226
Cesspools filled up	4	2	6
Public or private wells abolished	..	..	..
Houses connected to water mains	35	4	39
Trough and water closets repaired	839	1,342	2,181
Other house nuisances remedied	3,822	1,783	5,605
Total houses for which above work was done	13,927	11,059	24,986
Offensive accumulations removed and stopped gullies cleansed	650	410	1,060
Pollution of streams remedied ..	..	..	..
Other non-domestic nuisances re- moved	70	31	101
Total nuisances abated	14,063	10,308	24,369

SANITARY ADMINISTRATION.

Staff.—The inspectorial staff of the Department was increased during the year by the appointment of an Assistant Smoke Inspector and two Probationary Sanitary Inspectors. The latter were appointed not to new posts but to fill vacancies. The staff is still numerically below its pre-war standard. For the needs of a City of the size and importance of Leeds the present inspectorial staff is inadequate if the sanitary work is to be maintained at a high level of efficiency. The addition of at least two probationers is urgently required to give assistance in the districts where the work is heavy and to act as relief in case of sickness and during holidays.

Sanitary Inspection of District.—The year was again an extremely busy one as far as general sanitary work is concerned, and the high standard reached during 1921 has been fully maintained. Gross sanitary defects of various kinds have been remedied in every area of the City, and although it is impossible to convert old dilapidated property into new houses, much has been done to render these old houses habitable. Whilst a large number of the defects found were such as are inseparable from old property, one must in justice state that there is another class of defect which is due to carelessness on the part of the tenant. If tenants could be induced to treat the houses with reasonable care much of the friction which at present exists between owners and tenants would be avoided, and the tenants themselves become happier and more comfortable. There is, however, a type of tenant that would spoil any property, and it is in such cases that some measure of protection has to be given to the owner.

The Increase of Rent and Mortgage Interest (Restrictions) Act, 1920 has continued in force during 1922, and numerous serious defects which could not be dealt with under the Public Health Acts have been remedied. Since the Act came into operation (July, 1920) up to the end of December, 1922, 673 applications have been received and 618 certificates and 10 reports have been issued. During the year 1922, 211 applications were received and 199 certificates and 8 reports issued.

Notices.—The number of preliminary notices served during the year for the abatement of nuisances and the repair of insanitary property was 10,950, and as a certain number were not complied with it was necessary to serve 3,698 statutory notices. Of the latter 3,060 were effective, and 638 were still outstanding at the end of the year.

Details of the sanitary work are given on pages 26 and 27.

Legal Proceedings.—In 9 cases legal proceedings were instituted for failure to carry out the requirements of the Public Health Acts whilst in certain others compliance with the terms of the notice was induced by threats of legal proceedings.

Underground Sleeping Rooms.—Draft Regulations (under section 17, Housing and Town Planning Act, 1909) in connection with underground sleeping rooms have been passed by the Improvement Committee and submitted to the Ministry of Health for approval. This step has been made necessary by reason of the large number of premises which have been converted into flats, the basements of which though partly below ground are frequently occupied. It is the practice of the Department as soon as it becomes aware that premises are being converted into flats, to intimate in writing to the owner the requirements which must be fulfilled in order to allow of rooms in the basements being used as sleeping rooms.

Common Lodging Houses.—In July of 1922 the administration of part III of the Public Health Act, 1875 and the Leeds Corporation (Consolidation) Act, 1905 as to common lodging houses, till then the prerogative of the Watch Committee, was transferred by that Committee to the Health Committee, thus placing the whole responsibility for the sanitation and conduct of the common lodging houses in the City—as it ought to be—on the latter body. The Police still retain the right of entry by day or night for the purposes of criminal investigation. Thus ended the dual control of common lodging houses (by the Watch and Health Committees) which, though it had existed for many years, had never been satisfactory and was a constant source of friction between the two departments. The Inspector who had been engaged in the inspection of common lodging houses under the old regime was confirmed in his appointment to which was added Houses let in lodgings, Canal boats, Vans, tents and sheds and Ice cream vendors. A special probationer sanitary inspector was appointed to assist him in these duties.

In the 29 registered common lodging houses with a total of 1,735 beds for males and 99 for females, accommodation was found during the year for 478,874 male and 30,117 female lodgers.

In addition to the 29 registered common lodging houses there are 3 unregistered lodging houses, two for men and one for women, which are under the control of the Salvation Army and the Church Army. These possess altogether 367 beds for men and 50 for women, and are regularly inspected. During the year they accommodated 120,514 male and 3,279 females.

In accordance with established practice lodgings which are to be placed on the register of approved premises for the use of students at the University have been inspected by the Public Health staff and the results reported to the University Authorities.

Details of these inspections are as follows :—

New lodgings inspected during 1922, 158 with 596 rooms.

Drains tested :—168 in 158 houses ; 8 defects found in 3 houses.

Houses previously examined :—inspected, 6, with 20 rooms.

Drains tested :—14 in 6 houses ; 3 defects found in 1 house.

Total visits to these houses 197.

Residential Flats.—The number of houses examined which have been converted into flats was 55 and the number of flats 260. The number of visits paid to these flats was 177. The nuisances found are included under houses let in lodgings.

Canal Boats.—The total length of canal waterways within the city boundary is $5\frac{1}{2}$ miles with an average width of 40 feet and a depth during the dry season of 3 feet 10 inches. The drop or fall of the canal within the city boundaries is 75 feet 2 inches. Canal boats ply on the River Aire within the city boundary from Victoria Bridge to the Southern boundary at Knowsthorpe Lock—a distance of 2 miles. The river in this part of its course passes through two locks, the total fall being 12 feet 9 inches. The average width of the river is 80 feet with a depth during the dry season of 8 feet. Another navigable portion of the river is a short portion of 30 yards which runs parallel with the canal from Monkbridge to the “Dark Arches.” In order to ply on this water boats have to be taken into the canal and passed through a large lock adjacent to the Midland Railway until the level of the river is reached.

There are 56 mooring places on the navigable waterways within the city boundary whereat inspections are made, and the boats using these waterways during the year numbered 238 of which number 153 were Leeds boats.

CANAL BOATS.

Registered during the year 1922	..	..	..	15
Re-registered „ „ „	..	..	..	4
Transferred to fresh owners	..	..	..	13
Struck off register (on revising register)	..	..	..	9
Remaining on register at end of year..	..	..	..	153
Visits of inspection to wharves and locks	..	..	..	673
Complete inspections of boats (238 boats)	..	..	..	645
Cases of infectious disease	..	..	..	—
Cases of overcrowding	..	..	..	—
Dirty cabins	..	..	..	7
Absence of registration certificate	..	..	..	18
Boats not marked with registered number	..	..	..	61
„ not properly ventilated	..	..	..	59
„ requiring painting or repairing	..	..	..	33

Vans, Tents and Sheds.—The need for bye-laws in connection with vans and tents was demonstrated during the epidemic of scarlet fever which prevailed in the City throughout the year, when in September a case occurred in a van on one of the “feast-grounds.” The difficulty of controlling the contacts was so evident that application was made to the Ministry of Health for powers to deal with these dwellings, and draft bye-laws have been passed by the City Council and submitted to the Ministry for their approval.

Offensive Trades.—The total number of offensive trades in the City is 69, which includes 5 bone boilers, 4 soap boilers, 11 tripe boilers, 4 fellmongers, 4 glue and size makers, 4 gut scrapers, 23 tanners and leather dressers, 12 tallow melters and fat extractors, and 2 manure manufacturers. These 69 offensive trades are carried on in 55 establishments.

Special mention should be made of two trades which, if not carried on in suitable premises and carefully supervised, are liable to give rise to grave nuisance. These are the trades of Rag and Bone Dealer and Fish-frier. During the year all the above-mentioned trade processes, etc., were thoroughly inspected, and representations will shortly be made to the Ministry of Health for powers to extend the list of offensive trades to include in addition to those which already appear in it, the two trades mentioned.

VANS, TENTS AND SHEDS.

Visits to vans during 1922	1,183	
„ „ vans for infectious diseases ..	20	
„ „ 23 tents	72	
„ „ cellar dwellings or suspected dwellings	90	
„ „ 45 camping grounds	158	
Ice cream carts (202) inspected (street vendors)	261	
Ice cream sheds (67) inspected (street vendors)	163	
<hr/>		
Nuisances—	FOUND.	ABATED.
Dirty camping grounds	2	2
Dirty vans and tents	3	3
Overcrowded van	1	1
Camping grounds with no accommodation for van dwellers	21	21
Cellar dwellings closed	17	16
Dirty cellar dwellings .. .. .	..	..
Unsuitable ice cream sheds repaired ..	13	13
Unsuitable ice cream sheds closed ..	8	8
Ice cream carts not marked	10	10
Other nuisances on camping grounds	9	9

A detailed report on fried-fish shops was submitted to the Health Committee during the year which report showed that there are many premises in the City which are totally unfit to be used for the purpose by reason of defective structure, absence of effectual drainage, lack of ventilation, lack of water supply, inadequate means for disposal of offal and unsuitable apparatus. "Fish and chips" form part of the daily dietary of a large number of people living in the working-class areas of the City, and it is essential for public safety as well as in the interests of the trade itself, that the shops engaged in making and purveying this food should be properly supervised. The local Fish Friers' Association, it is satisfactory to note, are desirous of having the trade scheduled as an offensive trade, and so brought under the control of the Local Authority. It is due to this Association to state that the majority of its members carry on a high-class trade in suitable, well appointed premises, and as a rule in a cleanly and inoffensive fashion. There are many instances, however, where fish is cleaned and cooked for sale to the public under conditions which are not only unsuitable, but actually dangerous. It is such that need constant supervision and control.

FACTORIES AND WORKSHOPS.

I.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries.)	447	280	..
Workshops (Including Workshop Laundries.)	2,462	368	..
Workplaces	67	5	..
Total	2,976†	653	..

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	150	127	..	..
Want of ventilation	49	37	..	..
Overcrowding	1	1	..	..
Want of drainage of floors ..	4	4	..	..
Other nuisances	540	466	..	..
Sanitary accom- modation. { insufficient ..	32	19	..	..
{ unsuitable or defective..	184	123	..	..
Sec. 22 in force. { not separate for ..	14	11	..	..
{ sexes ..				
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (S. 101) .. ..	..	..	..	..
Breach of special sanitary require- ments for bakehouses (SS. 97 to 100)	52	45	..	..
Other offences .. .. .	..	..	..	..
Total	1026	833	..	..

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

† Exclusive of 2,507 visits to 626 bakehouses by ward inspectors, see page 37.

3. 4. 5.—OTHER MATTERS.

Homework :—	Number of		
	Lists.	Outworkers.	
<i>List of Outworkers</i> (S. 107) :—		C.	W.
(No homeworkers on our register except amongst those engaged in making wearing apparel)* .. ..	..	..	..
Lists received twice in the year	388	779	916
„ once in the year	53	49	84
Addresses of \ received from other Authorities ..		114	
outworkers / forwarded to other Authorities ..		7	
Notices to occupiers as to keeping or sending lists ..		601	
Prosecutions.. ..		..
Inspection of Homeworkers' premises		59	
<i>Homework in unwholesome premises :—</i>			
Instances		25	
Notices		25	
Prosecutions.. ..		..
<i>Homework in infected premises :—</i>			
Instances		1†	
Orders made (S. 110)		1	
Prosecutions (SS. 109, 110) .. ..		..
[Infectious cases removed, disinfection carried out under ordinary powers.]			
<i>Workshops on the Register</i> (S. 131) <i>at the end of year :—</i>			
Ordinary (156 trades)		1,068	
Domestic (19 trades)		75	
Bakehouses on register as workshops		243	
Do. domestic		383	
Total number of workshops on Register		1,769	
<i>Matters notified to H.M. Inspectors of Factories :—</i>			
Failure to affix Abstract of the Factory and Workshop Act (S. 133) .. ..		..
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5). {	Notified by H.M. Inspector ..	76	
Other	Reports (of action taken) sent to H.M. Inspectors..	78	
<i>Underground Bakehouses</i> (S. 101) :—			
Certificates granted during the year .. ..		..
In use at the end of 1922		32	

* Two of the above lists (containing two workpeople) received twice a year—home workers engaged in paper bag making. All others in wearing apparel.

† Scarlet Fever patient.

The above table is that required by the Home Office and represents work done by the male workshops inspectors and by the women inspectors.

The total number of visits made to offensive trades was 871. In many cases where there were obvious defects of a minor character, verbal advice and warnings were given and brought about the desired remedies, but in the case of two firms carrying on the trades of Manure Manufacturer and Fat Melter respectively, only the threat of legal proceedings had any effect, and produced the alterations to buildings and apparatus necessary for the abatement of the nuisance arising from the offensive smells.

Factories and Workshops.—On pages 34 and 35 will be found a complete summary of the work done under the Factory and Workshop Act, 1901, and in a separate table a report on the inspection of bakehouses. With regard to the latter, it should be stated that it has become a growing practice since the termination of the war for private persons to utilise the living-rooms of their houses for baking bread and pastry for sale to the general public. The practice is a bad one, and fraught with danger unless care is taken to render the rooms absolutely clean and sanitary. The public must understand that the baking of bread for general sale cannot be tolerated in unauthorised premises.

Plans.—In March, 1922, a new system for recording comments made on plans submitted by the Building Surveyor was inaugurated. By the system adopted a permanent record is kept of all comments, suggestions and rejections of plans submitted. The total number of plans so examined and recorded during the year was 259.

OTHER VISITS PAID BY MALE WORKSHOPS INSPECTORS.

	Factories.	Workshops.	Workplaces.
Non-abatements	328	578	3
Drain Inspection	61	69	..
Drains tested	35	58	..
Disease enquiries	46	12	..
River pollution .. ..	..	..	..
Complaints	38	34	..
Measurement of workrooms ..	2	119	..
Other causes	337	865	6
TOTAL	847	1,735	9

BAKEHOUSES.

WARD.	OVERGROUND.			UNDERGROUND.			Total visits to all.
	Em- ployees beyond family.	Work- shop bake- houses.	Domestic bake- houses.	Em- ployees beyond family.	Work- shop bake- houses.	Domestic bake- houses.	
Central	56 in 18	1	8 in 3	..	94		
North	36 .. 14	27	4 .. 2	1	201		
North-East	36 .. 19	29	2 .. 1	..	98		
*New Ward	8 .. 4	2	..	..	17		
East	26 .. 12	32	..	..	106		
South	15 .. 9	20	2 .. 1	..	140		
East Hunslet	13 .. 8	43	4 .. 2	..	223		
West Hunslet	34 .. 14	35	..	3	110		
Holbeck	39 .. 10	30	..	..	112		
Mill Hill	33 .. 11	5	..	..	36		
West	29 .. 12	22	..	..	176		
North-West	82 .. 15	29	12 in 6	1	251		
Brunswick	38 .. 13	11	3 .. 1	..	306		
New Wortley	21 .. 10	11	..	..	96		
Armley & Wortley	35 .. 22	37	..	..	190		
Bramley	16 .. 9	12	..	..	252		
Headingley	79 .. 23	29	6 .. 4	3	189		
Total	596 in 223	375	41 in 20	8	2,597		

* Roundhay, Seacroft, Shadwell and Crossgates.

These visits made by Ward Inspectors only. This work is included in the figures given in table on page 26.

Work of Women Inspectors.—Two women sanitary inspectors are constantly engaged in visiting the homes of outworkers, in carrying out investigations into outbreaks of infectious disease in factories, workshops and schools and attending to complaints received from the factory inspectors or other sources as to sanitary defects affecting the health of the workers in factories and workshops. The following is a summary of their work.

Infectious Diseases.—The following visits were made :—

To schools (on account of 1,372 cases)	2,023
To absent pupils	173
To factories (218)	306
To workshops (15)	21
To workplaces, including restaurants (31)	41
To absent employees	15

Outworkers.—Visits paid to the homes of outworkers numbered 880. Of these, 59 were first visits, and the remainder, 821 were additional visits for special reasons. In addition to these, 164 visits were paid to the premises of employers of outworkers.

Factories and Workshops.—Part of the work done by the women inspectors under this heading is included in the table on pages 34 and 35.

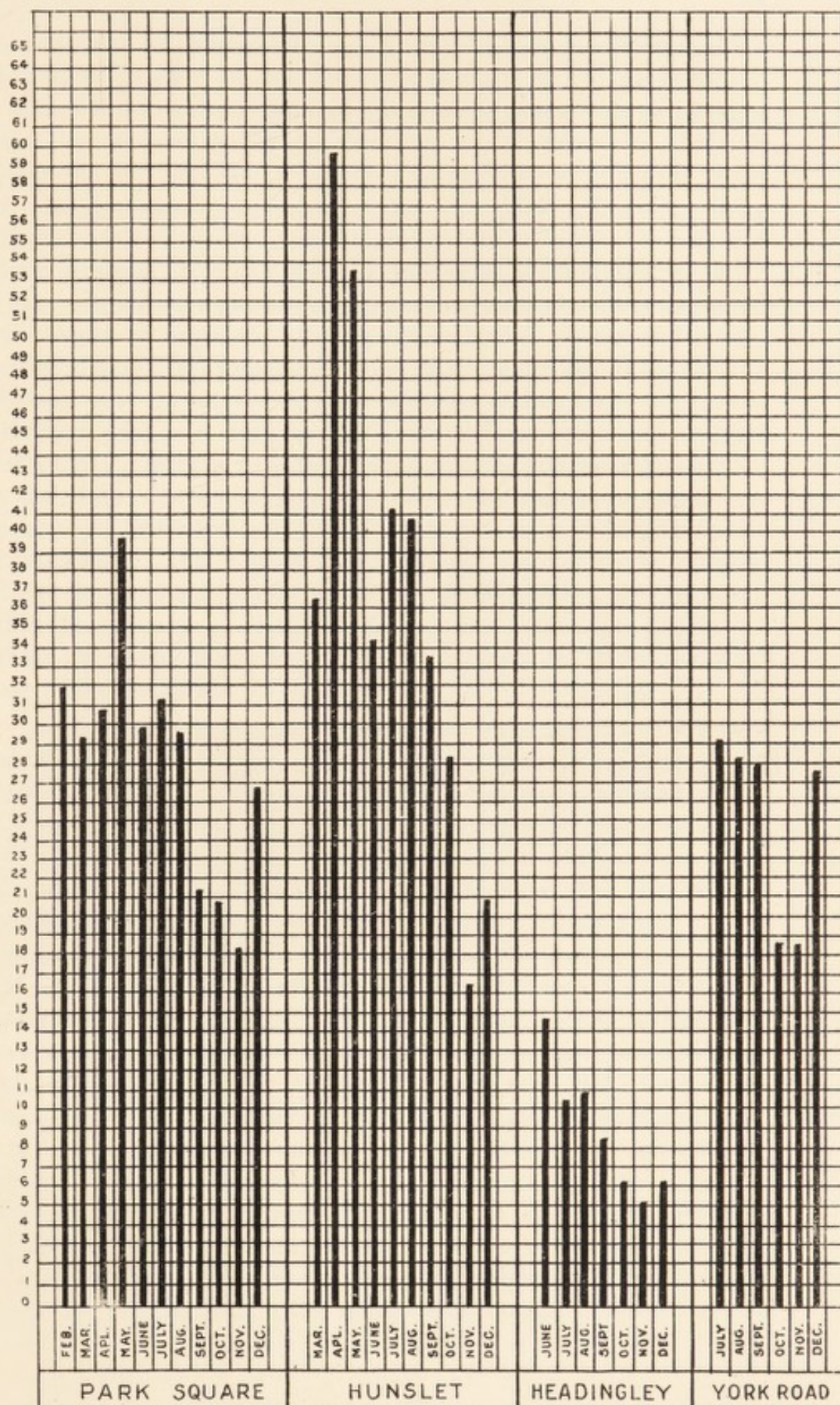
In addition to that appearing in the table the following visits were paid :—

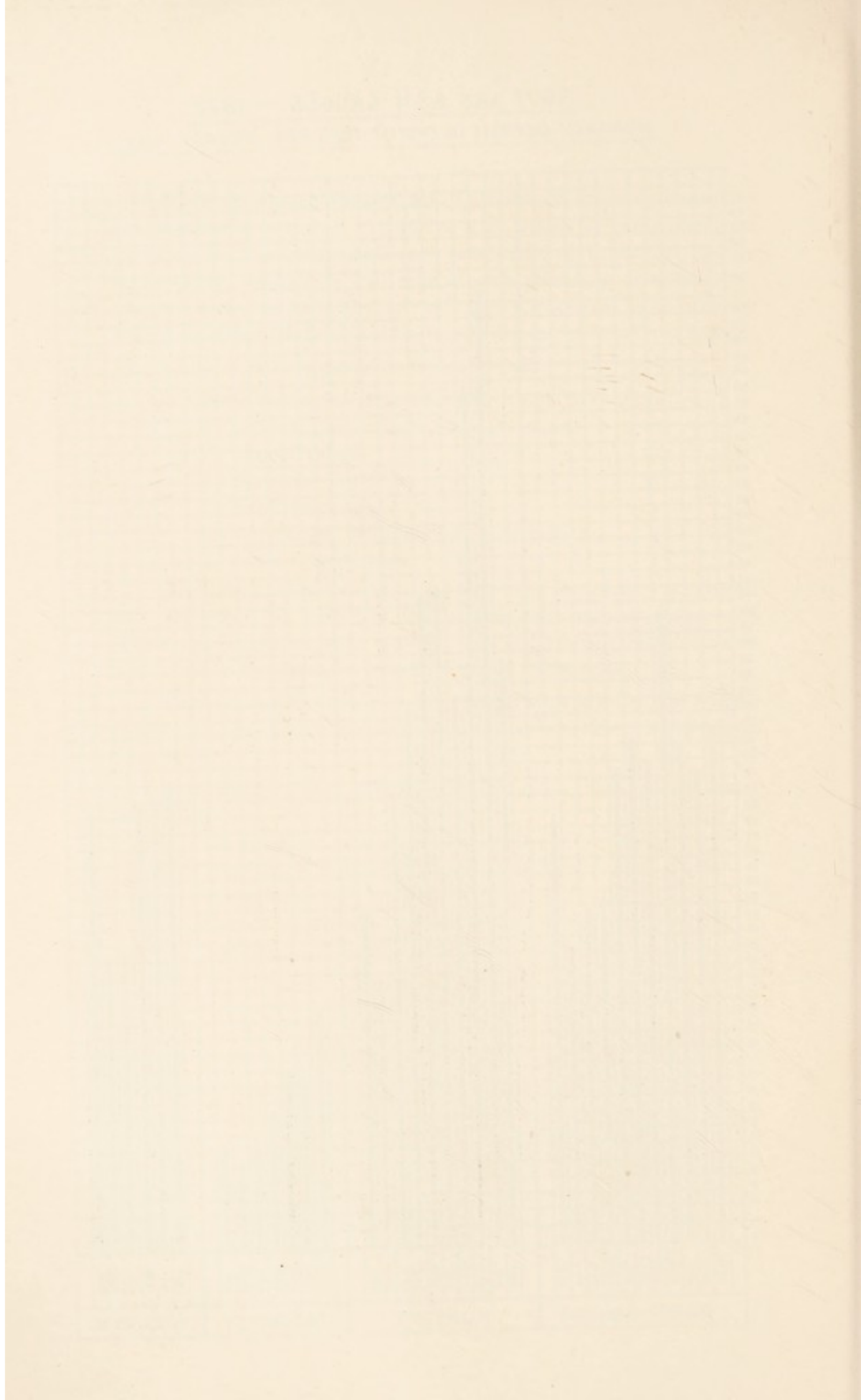
Factories on receipt of complaint ..	65
Workshops (routine and on complaint)	227
Workplaces and restaurants do. ..	47
Houses on receipt of complaint ..	19
Various	18
<hr/>	
Total	376
<hr/>	

Nuisances found 133. abated 100.

Smoke Abatement.—The abatement of the smoke nuisance is no longer merely something to be desired, it has become a necessity if healthy conditions of living are to be restored to the great centres of industry in the country. From every point of view, social, economical and moral the pollution of the air with the unburnt products of the combustion of coal is bad. Heat and power are necessary to industry we know, but modern science has shown

SOOT AND ASH GAUGES.—1922.
MONTHLY DEPOSIT IN ENGLISH TONS PER SQUARE MILE.





a better way of obtaining these than by the dirty wasteful methods at present in use. In the form of gas made on the coalfield and conducted straight to the City (just in the same way as water is from the upland gathering grounds), or as electricity similarly generated and conveyed, coal could be made to serve all the needs of the community without smoke or other pollution. Why should such a valuable source of energy as coal and one to the national stock of which there is a limit, be wasted as is being done to-day? That is a question which concerns everybody and should be answered by everybody, engineer, manufacturer, chemist, stoker and householder alike. The domestic fire is as much an offender as the factory furnace, only the latter is more readily controlled, hence the greater attention paid to it both by our National Legislature and by local authorities. But the private citizen cannot escape his responsibility in the matter though it must be said for him that he is responding in quite an admirable fashion to the appeal for a reduction of the smoke cloud. This is proved by the rapid increase in the number of gas fires and gas stoves, not to say electric radiators and other smokeless sources of heat in recent years. Had manufacturers shown the same keenness in adopting gas and electricity for heat and power we should be living in a sunnier City to-day.

During the year quite a number of firms had to be warned for allowing the emission of dense smoke from the chimneys of their works, in excess of the legal limit of 3 minutes per hour. The fault in many instances lay with the appliances which were old and inefficient, but in others with the stokers who either from want of knowledge or from carelessness failed to keep their fires at the temperature necessary to ensure complete combustion. The importance of the stoker in a large factory is not always appreciated and yet he may make all the difference between solvency and insolvency, because whilst an intelligent and careful stoker will save thousands of pounds yearly for his employer an ignorant and careless man will waste immense sums in a very short time. Amongst the worst offenders in the matter of smoke emission in the City are the Railway Companies, and they are the hardest to control. Many of the men on the footplate seem to have no knowledge whatever of fuel economy or of the proper methods of stoking. I cannot think but that it would be to the advantage alike of the companies and the travelling public if the fireman had a course of instruction in the methods of stoking before going on

the footplate. Such flagrant disregard of the law and of the comfort of the citizens as one sees every day at the railway stations in Leeds would not be tolerated in an American City.

With the object of instructing stokers employed by firms in the City, in fuel economy and methods of firing boilers, a special course of six lectures was arranged by the Education Department and given at the Leeds Technical School in November and December. The course was well attended and aroused much enthusiasm both amongst employers and men. It is hoped that it may be possible to repeat the lectures next winter.

Smoke stations have now been established in four regions of the City, namely, Central, East, South and North-West. The contents of the gauges are examined monthly and the results show a steady fall in the deposit of soot in the various parts of the City. To what the fall is due, whether to idle furnaces or to the vigilance of the inspectors is difficult to say. Possibly both factors have operated. If the chart on page 38 means anything it is that the City is steadily becoming a sunnier and a brighter place.

The work of the smoke inspectors is given in detail in the subjoined table.

	1922.	1921.
Complaints received	2	26
Furnaces inspected	4,486	5,524
Observation of chimneys (1 hour each) ..	3,853	3,286
Number of minutes dense smoke	4,614	2,876
Average duration of dense smoke per observation of one hour	1 min. 12 secs.	0 min. 53 secs.
Number of chimneys found emitting dense smoke three minutes per hour	275	281
Notices served on manufacturers	24	11
Notices served on stokers	44	7
Prosecutions	none	none
Smoke prevention appliances adapted to furnaces	30	21
Smoke prevention appliances repaired ..	11	—
Chimneys newly erected	4	10
Furnaces in connection with new chimneys	4	22

Rat Repression.—There is still an impression abroad that the Health Department distributes supplies of rat poison free of charge

to the public, and that it is the duty of the rats officer to clear infested premises. It cannot be made too clear that the Corporation do not employ rat catchers, nor is it any part of their duty to do the actual extermination of rats. The executive rats officer is purely an adviser employed by the Local Authority to give advice to any who may apply for it as to the best methods of disinfecting any particular place or premises. It is also his duty to see that rat infested premises are cleared and to ensure that the law is carried out.

It would be an advantage if the Act were amended so as to make the owner of infested property responsible for rat proofing, excepting in cases where the defects were caused by the wilful damage or neglect of the occupier. The clearance of premises might then reasonably left to the occupier.

In the examination of premises said to be rat infested, one has to rely to a great extent on the word of the complainant, as very often there are no visible signs of infestation although rats may be present. Various methods are adopted in clearing premises of the pest, and each case has to be dealt with on its merits. If a rat catcher is thought to be necessary and the occupier is willing to pay for his services, one is recommended; on the other hand, poison, traps, or other methods may be advised according to the nature of the premises and the means of the tenant. Cost is in many instances the deciding factor, especially so where it is small cottage property which is involved, and where to advise expensive methods of disinfection would simply be a waste of time because the advice would not be taken.

It is impossible to give the actual number of rats destroyed, and one can only give the number reported as found killed either by traps, poison, ferrets, dogs, cats or by hand. Many rats take poison and are never seen again, dying often away from their usual haunts. In odd cases the virus or poison taken make the rats so ill that they come out into the open and are thus easily despatched.

In accordance with the suggestion of the Ministry of Agriculture and Fisheries, a Rat Week was held in the City during the period November 6th to November 13th. This occupied a considerable amount of time both in organising and in collecting the results afterwards. In connection with the campaign an exhibition was held at the Health Offices of traps of various kinds, poisons, rat

catching varnish, and other appliances. Poison and traps were sold at cost price and householders of the poorer class were supplied with free packets of rat poison. A special letter was sent out to occupiers of premises specially liable to rat infestation. Handbills were distributed and posters displayed in various parts of the City, and the campaign was advertised through the press and some of the local Cinemas. Visitors to the exhibition were given a copy of the pamphlet on rat destruction issued by the Ministry of Agriculture and Fisheries.

Organised rat hunts were held in several places and poison baits were laid in the sewers and refuse tips. It is difficult or impossible to estimate the results of such a campaign, for whilst one may learn of rats being killed here or there the vast majority die in secret and are not heard of. The object of such a campaign, however, is not so much to kill rats as to enlist the sympathy of the public in ridding the City of a dangerous pest.

I may remind occupiers that it is their duty to notify the local authority if their premises are infested with rats, in order that steps may be taken to exterminate them. They seem loath to do this, whether because they prefer to put up with the rats rather than bother to notify, or because the property not being their own they just do not care, it is difficult to say. Particulars of the work of the rats officer for the year is appended.

Complaints received	197
Premises inspected	395
Premises found to be more or less infested with rats	308
Premises cleared	278
Premises where infestation was diminished ..	20
Cases in which rat proofing was carried out ..	201
Cases in which drainage was found defective ..	30
Cases in which rat-catchers were employed ..	44
Premises with work in hand at end of year ..	27
Rats caught by ferrets, dogs, cats, traps, or killed by hand or found poisoned ..	2,748
Visits for purpose of observation, work in progress, or work done	789
Visits for other causes, such as appointments, interviews with owners and others, enquiries	351
Informal notices served	210
Notices complied with	179

Fertilisers and Feeding Stuffs.—Two samples were taken during the year one of feeding stuff and one of a prepared plant food. The first was formal and on analysis was found to contain foreign starches to the extent of 18 per cent. The Ministry of Agriculture was communicated with and advised that as the firm was being proceeded against for a similar offence in another part of the country a warning to the retailer would meet the case. This course was adopted.

The second sample—plant food—was informal and on analysis proved to be genuine.

The Rag Flock Act, 1911.—During the year five samples of rag flock were taken. The first was taken from an unopened bale just as it had been delivered by the manufacturer, as also was the second. The third was taken from a heap actually being used in the manufacture of bedding, and the fifth was a sample of "curled wool" taken from a bale. All four samples conformed to the required standard. The fourth sample was taken from an unopened bale of flock and the analyst reported that it contained 65 parts of soluble chlorine per 100,000 parts of flock in excess of the legal standard. The invoice describing the consignment specified "24 bags Greys" guaranteed to Government requirements. Proceedings were taken and the case after being adjourned on February 7th, 1923 was heard on the 14th February, 1923. The defence was that the flock sampled was not rag flock within the meaning of the Act inasmuch as it was not made from rags derived from clothing which had been used or worn and thus become subject to organic contamination. Rags were produced which were of the nature of "tailor's cuttings" from which it was alleged the flock in question had been made. Expert evidence was called in support of this, the effect of which was to prove that the excess of chlorine found in the sample was due to chlorides used in the process of manufacture. The Magistrate in his summing up said that there was need for a clear definition of the word "rag." No interpretation of the term had been attempted by the Local Government Board or the Ministry of Health and in his opinion it was not intended that a "tailor's clipping" should be included in the definition. The case was dismissed. As the Magistrate remarked the Act as it stands is most ambiguous and requires amendment.

FOOD.

During the year the Milk and Dairies (Amendment) Act, 1922, came into operation. The main object of the Act was to extend the period of suspension of the Milk and Dairies (Consolidation) Act of 1915, which will not now come into force until 1925, unless a further extension takes place. The new Act gives additional powers to Local Authorities with regard to the sale of milk by retail. It provides for the registration of retail purveyors and producers. It also gives power to Local Authorities to remove the name of a milk purveyor who fails to comply with the regulations in force in the district for that purpose. Not so the producer; he is still at liberty to produce milk where and how he pleases so long as his cows are free from tuberculosis and his cowsheds conform to the requirements of the Dairies, Cowsheds and Milkshops Order, or any regulations made under that Order. This distinction between the purveyor and the producer is most unfortunate inasmuch as it creates an anomaly, because, whereas the purveyor will be compelled to maintain his premises and utensils in a condition of cleanliness satisfactory to the Local Authority and the quality of the milk of a satisfactory standard, there will be no obligation on the part of the producer to take any pains to keep his milk clean. The result will be the reception into clean vessels of milk of a dirty and low grade quality more suitable for the swill tub than for a clean churn. It is neither fair nor equitable to make one standard for the farmer and another for the purveyor; both should have to work to the same standard. I am quite conscious of the fact that much of the contamination of milk takes place after it has left the hands of the producer, that is, in the course of distribution by the retailer or even after it has passed into the hands of the consumer, but that to me does not seem a sufficient reason for making the law so one-sided.

The Act also provides for the sale of designated milk and for the granting of licenses for such. Under this section a special order, the Milk (Special Designations) Order, 1922, was issued

in December, and came into force at the beginning of the current year. This Order provided for the issue of licenses as follows :—

- (1) By County and County Borough Councils (and in certain circumstances by Urban and Rural District Councils) to producers of "Grade A" Milk.
- (2) By Sanitary Authorities to :—
 - (a) Distributors of "Certified" Milk.
 - (b) Distributors of "Grade A" Milk, including "Grade A (Tuberculin Tested)" and "Grade A (Pasteurised)."
 - (c) Distributors of "Pasteurised" Milk.

The Minister of Health reserves to himself for the present the right of issuing licenses to producers of "Certified," and "Grade A (Tuberculin Tested)" milk. The Order also sets out in detail the procedure to be followed by County Councils and Sanitary Authorities in issuing licenses, and fixes certain conditions and standards to be observed in the production of the various grades of milk. I have never been in favour of the grading of milk, and am still of opinion that it is the wrong way to tackle the problem. What the people want is a safe milk supply at a price within their means. "Certified" milk at 1/3 a quart can only be bought by the richer classes. "Grade A" milk, if it could be produced to sell at a price within the means of the working class family, would probably solve the difficulty to some extent, but I understand on good authority that it is quite impossible to produce milk of this grade to sell at a price less than 9d. or 10d. a quart, which is more than the average householder can afford. The wider use of "Pasteurised" milk, provided one could be assured that the process was carried out according to the directions set out in Part IV. of the Third Schedule of the Order, would be an undoubted advantage and a step in the right direction. For my own part I am not convinced as some are that pasteurisation is a solution of the milk problem. It is certainly one way of protecting the consumer, but it does not get us any nearer a clean milk supply. If pasteurisation is to suffice then all the talk about clean cows, clean cowsheds, clean utensils, and clean milkers is useless. The milk may be a compound of all the dirt imaginable, but no alarm need be occasioned because pasteurisation will render it innocuous. This

brings one back to the real position, which is, that the people ask for clean milk and they ought to have clean milk, even if they have to pay a little more for it.

Another important section of the Act is that which forbids the sale of milk produced by a cow suffering from Tuberculosis of the udder. It is regrettable that this section is practically rendered void by the introduction of the qualifying words, "if it is proved that he knew, or could by the exercise of ordinary care have ascertained that the cow was suffering from that disease." There is none so blind as those who do not wish to see, and one may be sure that the farmer who wishes to evade the law will have no difficulty in persuading a Magistrate that he was ignorant of the presence of tuberculosis in the udder of his cow.

On the whole the Act may be productive of a certain amount of good especially so if the farming community can be convinced of their ability to produce "Grade A" milk without very much additional outlay. At present there seems to be a misapprehension on this point and many farmers have hesitated to launch out on the production of "Grade A" milk because they were under the impression that it involved the possession of a tubercule-free herd and a big expenditure of money on buildings and appliances. An attempt has been made to rectify this false impression in this area by talks to farmers on the subject. So far, however, no one has had sufficient courage to make the experiment.

Since the special order came into operation licenses have been issued to one retailer for the sale of "Certified" milk, and one for "Pasteurised" milk. The response has therefore been very disappointing, and I am afraid will continue to be so until the producer and retailer can be assured that they will receive an adequate return for their outlay. As far as this particular area is concerned the milk produced, generally speaking, is of good quality and the conditions under which it is produced are much superior to those found on the farms in the rural districts from which much of the milk consumed in the City is derived.

Two farms belonging to the Corporation have recently been licensed by the Ministry of Health for the production of "Grade A (Tuberculin Tested)" milk, namely, Temple Newsam and Skelton Grange. The cows at both farms are high grade quality and are regularly tested and examined by the Veterinary Inspector. The

milk produced by these cows is distributed amongst the following institutions, Killingbeck Sanatorium, Armley House Sanatorium, Infants' Hospital, Wyther, the Residential Nursery and the Day Nursery. The Corporation is to be congratulated on its enterprise and it is hoped that when the farms become fully developed it will be able to supply all the milk required by its institutions at a reasonably low cost.

Cows and Cowsheds.—The total farms in the City visited for purposes of inspection of cows and cowsheds was 158, and the total number of visits paid 681. At 12 of the farms there were no cows kept, 5 discontinued and 3 commenced the keeping of dairy cows during the year, leaving at the end of the year a total of 144 farms still in use as dairy farms. The number of cows examined was 2,020, and the total number of examinations made 7,919. At 7,679 of the inspections (or 97 per cent.) the cows were found to be clean and at 240 (or 3 per cent.) dirty. As regards the health of the cows examined 34 (or 1·7 per cent.) were found to be diseased, 10 (or 0·5 per cent.) having tuberculosis of the udder, 6 (or 0·3 per cent.) had general tuberculosis and 18 (or 0·9 per cent.) diseases other than tuberculosis. In every case where tuberculosis was diagnosed the farmer was instructed to isolate the cow from the rest of the herd, destroy the milk and dispose of the cow for slaughter. There are no means of proving that these instructions were carried out though in most of the cases I believe they were.

The number of cowsheds inspected was 222 and the total number of inspections 936, whilst the number of yards visited was 154 with a total of 583 inspections. The sheds were reported clean at 872 visits and dirty at 64, whilst the yards were clean at 572 visits and dirty at 11. Fourteen (or 6 per cent.) of the sheds in use are unsatisfactory and should be abolished.

In addition to the above work done in the City, 1,357 cows were examined outside the City at farms supplying milk to Leeds. Of these 465 (or 34 per cent.) were found to be clean and 892 (or 66 per cent.) dirty; 157 sheds were inspected and 32 (or 20 per cent.) found clean, and 125 (or 80 per cent.) dirty; 38 (or 58 per cent.) of the yards were clean and 28 (or 42 per cent.) dirty. Of the 1,357 cows examined, 8 were found to be suffering from tuberculosis not affecting the udder and 5 from diseases other than tuberculosis.

The following table shows the number of cowsheds and milk retailers in the City and gives a summary of the work done by the Food and Drugs Inspectors in connection with the milk supply.

Number of milk retailers in the City	..	..	448
Number of cowshed premises in the City	..	..	146
Number discontinued during year	..	..	5
Number commenced during year	..	..	3
Number in use at end of year	..	..	144
New cowsheds built	..	..	—
Cowsheds improved or reconstructed	..	..	16
New dairies built	..	..	—
Visits to milkshops	..	..	890
Visits to cowsheds	..	..	405
Visits to Railway stations	..	..	237
Visits to farms or milkshops <i>re</i> infectious disease	..	..	41

Milk and Food Analysis.—The subjoined tables set out the number of samples of milk and other foods taken during the year and examined by the City Analyst, with information as to quality and composition and results of Court proceedings.

SAMPLES OF MILK AND CREAM SENT TO THE CITY
ANALYST FOR EXAMINATION DURING 1922.

Article.	Genuine.	Adul- terated.	Total.	Taken formally.		Taken informally.	
				Genuine.	Adul- terated.	Genuine.	Adul- terated.
Milk	517	54	571	503	53	14	1
Skim Milk	1	..	1	1	..	..	..
Cream	1	1	2	1	1	..	..
Preserved Cream ..	3	..	3	..	..	3	..
TOTAL	522	55	577	505	54	17	1
				559		18	

The average composition of the 571 milk samples taken during the year was :—Solids not fat, 8.93 per cent. ; Fat, 3.59 per cent. ; Total Solids, 12.52 per cent. which compares very favourably

with the standard fixed by the Milk Regulations (1901) which is Solids not fat, 8.5 per cent.; Fat, 3.0 per cent.; Total Solids, 11.5 per cent.

Of the 54 samples of milk found to be adulterated, 17 were adulterated by the addition of water, 32 by the partial abstraction of fat, and 5 by the addition of water and the partial abstraction of fat. The largest deficiency in fat was 36.5 per cent., the retailer being fined. Of the other milk samples deficient in fat none exceeded 12 per cent. The largest amount of added water was 9.0 per cent.

SAMPLES OF FOOD OTHER THAN MILK AND CREAM, SENT TO
THE CITY ANALYST FOR EXAMINATION DURING 1922.

Article.	Genuine.	Adul- terated.	Total.	Taken formally.		Taken informally.	
				Genuine.	Adul- terated.	Genuine.	Adul- terated.
Butter	42	..	42	42	..	..	..
Margarine	2	..	2	2	..	..	..
Lard	29	..	29	29	..	..	..
Dripping	1	..	1	1	..	..	..
Pepper	8	..	8	8	..	..	..
Malt Vinegar	23	..	23	23	..	..	..
Vinegar	4	2	6	4	2	..	..
Tea	4	..	4	4	..	..	..
Coffee	4	..	4	4	..	..	..
Coffee Essence	3	..	3	3	..	..	..
Cocoa	4	1	5	3	1	1	..
Corn Flower	3	..	3	3	..	..	..
Self Raising Flour	2	..	2	2	..	..	..
Baking Powder	4	..	4	4	..	..	..
Cream of Tartar	4	..	4	4	..	..	..
Ground Ginger	3	..	3	3	..	..	..
Lemonade	1	..	1	..	..	1	..
Beer	18	..	18	18	..	..	..
Whisky	8	3	11	7	3	1	..
Rum	4	..	4	4	..	..	..
Lime Juice Cordial	1	..	1	1	..	..	..
Lemon Squash	1	..	1	1	..	..	..
Bottled Peas .. ..	..	1	1	..	1	..	..
Tinned Blackberries	1	..	1	1	..	..	..
Tinned Cherries	1	..	1	1	..	..	..
Tinned Tomatoes	1	..	1	..	..	1	..
Jam	12	..	12	12	..	..	..
Sausage	1	2	3	1	2	..	..
Chocolate	2	..	2	2	..	..	..
Demarara Sugar	5	..	5	5	..	..	..
Quinine Wine	1	..	1	1	..	..	..
Orange Quinine Wine	1	..	1	1	..	..	..
Prescriptions	7	..	7	2	..	5	..
Borax	2	..	2	2	..	..	..
TOTAL	207	9	216	198	9	9	..
				207		9	

SUMMONSES ISSUED DURING 1922, UNDER THE SALE OF FOOD
AND DRUGS ACTS.

No. of Sample	Article.	Adulteration or Offence.	Fines. £ s. d.	Remarks.
39	Milk ..	6.0% added water	3 0 0	farmer—retailer.
29	Do. ..	6.0% do. .. ..	..	retailer to pay costs.
43	Do. ..	7.5% do.	3 0 0	farmer supplying No. 29.
97	Do. ..	36.5% fat deficient ..	3 0 0	retailer.
204	Do. ..	6.5% added water .. ..	..	retailer: dismissed under Probation Act. To pay 15/- costs.
207	Do. ..	7.75% added water ..	..	farmer supplying No. 204. Dismissed under Probation Act. To pay 15/- costs.
92	Whisky	2.5% water in excess ..	5 0 0	
220	Do.	2.0% do.	5 0 0	
222	Do.	3.0% do. .. ..	..	To pay 25/6 costs.
142	Vinegar	4.5% deficient in acetic acid	..	Dismissed on payment of costs 5/-.
146	do.	12.0% do. .. ..	..	dismissed on payment of costs 15/-.
		{ Refusing to sell sample of milk to inspector ..	3 0 0	
		{ Obstructing Inspector ..	..	dismissed.
		{ Refusing to allow inspector to take sample in course of delivery	5 0 0	
		{ Refusing to sell sample to inspector .. ..	..	No judgment.
			£27 0 0	

Guinea-Pig Tests.—During the year, in addition to the samples of milk submitted to the City Analyst, 47 samples were sent to the School of Medicine for examination for the presence of the tubercule bacillus. Four (or 8.5 per cent.) were returned as positive. All of these were derived from farms outside the City boundary. The Veterinary Inspector, with the concurrence and approval of the Medical Officers of Health of the districts, visited the farms in question and examined the herd. As a result of his examination he found 2 cows suffering from generalised tuberculosis which in

his opinion were sources of infection. Instructions were given for the isolation of both animals, whilst the Medical Officers of the respective districts undertook to see that none of the milk from the infected animals was allowed to be sold for human consumption.

Milk and Cream Regulations.—All samples of milk and cream submitted for analysis are regularly examined for the presence of boric compounds and other preservatives. Four samples, taken formally and reported as genuine, were found to contain boric compounds; three of the vendors were warned by the Medical Officer of Health and one by the Town Clerk. One sample taken formally and reported as deficient in fat was also found to contain a trace of formalin. Investigations proved however, that this had got into the milk inadvertently and no further action was taken. In the case of a sample of cream taken formally and reported to contain boric compounds it was afterwards discovered that the girl in charge of the dairy which supplied the cream to the inspector had omitted to affix the necessary proper label. Legal proceedings were not taken but the firm employing the girl was severely censured and warned.

Foods and Drugs.—The food and drugs inspectors paid 928 visits to shops and other premises in connection with the administration of the Sale of Foods and Drugs, and Margarine Acts and took 207 formal samples and 9 informal samples, the result of the analysis of which appear in table on page 49. The custom of adding preservatives to food is becoming a very common one and it is but right that the public should realise the dangers connected therewith. One appreciates the necessity in certain foods of adding a small amount of preservative in order to prevent rapid decomposition but the amounts which different manufacturers insert varies so widely that in some cases there is a real danger of injury to the consumer. Fresh food if properly handled, stored and distributed should not require, except in very exceptional cases, the addition of a preservative, and when the public ask for a certain article they expect to get it in its pure, natural state. If preservative has been added this fact should be plainly stated in writing on the container. There is clear need at the present time for the introduction of legislation to regularise the use of preservatives in food and it is hoped that the Government may be induced to amend the Sale of Food and Drugs Acts for this purpose.

Meat.—In 1914 an Order (the Tuberculosis Order) came into being throughout the Country which made it possible for Local Authorities to demand the slaughter of cattle suffering from tuberculosis and to pay compensation to the owners. In 1915, during the war, the Order was suspended and has not again been revived. The result has been, and is, that Local Authorities have no power to deal with tubercle infected animals—further than to demand the exclusion of milk produced by such animals from sale and in certain cases to demand the isolation of infected animals from dairy herds. It is tolerably certain that the majority of the animals diagnosed as tuberculous find their way to the butcher's shop and are sold as sound. Further comment is unnecessary but it must be evident to the merest tyro that it is the most profound folly to attempt to control the incidence of tuberculosis whilst this source of infection remains active. With one hand we seek to quench the fire whilst with the other fuel is constantly being added. One sometimes wonders who controls these things and why?

In the same connection it may be remarked, as it has so often been in previous reports, that the existence of the private slaughter-house is by such acts as the suspension of the Tuberculosis Order strengthened and encouraged. "Screw beasts" never find their way to the Public Abattoir; it is the private slaughter-house which receives them and offers the facilities for slaughter and sale. Even with the utmost vigilance on the part of the Veterinary Inspector and his assistants it is impossible to detect these irregularities, and it is known that such practices are not uncommon in Leeds where there are 68 slaughter-houses. The only effective way of dealing with the problem, short of the total abolition of the private slaughter-house—a thing much to be desired—is by making it compulsory for the occupier of every privately owned slaughter-house (*a*) either to slaughter on certain days of the week only, or (*b*) give twenty-four hours' notice to the Local Authority of the hour at which he intends to slaughter and the number of animals to be slaughtered. He should also be required to declare the sources from which the animals have been derived.

With reference to the handling of meat and food of all descriptions, there is a great need for further legislation. As things are the public have no guarantee that the meat, bread, fish, fruit, etc., which they eat, and the milk and beer which they drink are free

from dangerous infection. A recent investigation into the methods of cleansing of drinking glasses in the public houses of the City proved that in all but a very few the cleansing is most perfunctory and there is no attempt at sterilization. The same carelessness obtains with regard to bread which is carried through the streets in open baskets and handled by dirty hands. The baker's boy as is well known always uses his oldest suit of clothes for delivering the bread.

Meat, fish, bacon, bread, fruit, cheese, etc., are frequently exposed in open shop windows and always in the stalls in the public market without the slightest protection from flies, dust and other contamination, and it is not an uncommon thing to see these articles being handled by hands which are not only dirty but display visible signs of skin disease. All this carelessness and indifference as to the cleanly handling of food is much to be deplored, and ought to be made punishable. Surely the open shop and the unprotected stall are things of a bygone day and ought to be abolished. Not only so, but the time has come when all food, whether exposed inside or outside the shop should be secured against possible contamination by the use of glass covers and the provision of suitable display cases. The shop assistants should be provided with overalls made of washable material including a covering for the hair, and the food itself should, wherever possible, be handled not with the bare hand, but with metal tongs specially designed for the particular article of food being sold. Facilities for washing hands should be provided in every provision shop.

Bread, including loaves of all description, should be wrapped before leaving the bakery, and every food store should be provided with a refrigerating chamber, or have refrigerating facilities close at hand. It is only by adopting such methods that the purity of food can be assured. Of course, it will add a little to the price, but the public must be prepared to pay this little more in order to secure a clean, safe article, and to protect themselves from disease. And then there is the other side—the vendor's side. He would have less waste and therefore less loss and more profit; his shop or store would be cleaner, brighter and smell more sweetly. It must never be forgotten that cleanliness is its own reward and always pays.

Two registered slaughter-houses and one licensed slaughter-house were removed from the register during the year.

An inspector is in constant attendance at the public abattoir whilst the 71 private slaughter-houses were regularly visited, some daily, and others once, twice, or thrice weekly. Speaking generally, the standard of cleanliness of these private slaughter-houses is fairly high, though some of them are so dilapidated as to make thorough cleansing impossible.

An extension of the public abattoir is urgently needed in order to permit of some of the worst of these private slaughter-houses being closed.

New Bye-laws for the management of privately owned slaughter-houses came into force during the year. A copy was sent to every occupier so that there is no longer any excuse for non-observance.

Two occupiers were warned for infringement of the bye-laws but in neither case was the offence grave enough to warrant prosecution.

SLAUGHTER-HOUSES IN USE.

	1914.	January, 1922.	December, 1922.
Public Abattoir	2	1	1
Private slaughter-houses (registered)	63	63	61
Do. (licensed)	10	8	7
Knackers' Yard	2	2	2

There were 7,801 visits paid to slaughter-houses and 8,250 visits to sausage and potted meat factories, markets, shops and stations.

The Ministry of Health issued a memorandum on Meat Inspection in June from which extracts were made and issued in the form of a handbill to all butchers and slaughter-men, with a recommendation that it should be exposed in a prominent place in the slaughter-house.

Pig slaughtering still continues to be carried on in unauthorised premises. The public ought to know by this time that this is illegal, and persons found in default lay themselves open to a severe penalty.

Several consignments of tinned fruit, relics of the war, were seized as being unsound and unfit for food, and destroyed. The

interesting thing about these was that the tins all bore brand new labels pasted over the top of the old ones, giving them the appearance of recent canning, whereas they were canned many years ago. The public are warned to be on the outlook for tins so camouflaged.

It was found necessary, owing to their being contaminated with sewage micro-organisms, to exclude Lytham and Hoylake Mussels from sale in the Leeds Market.

The market is patrolled by an inspector regularly every Saturday night and one inspector is on duty every Sunday morning visiting the East End, Bank district and High Street Area, also hawkers' carts, open shops and slaughter-houses are inspected.

The work of the meat inspectors is shown in the following table :—

MEAT, ETC., DESTROYED BY CONSENT.

	1922.	1921.	1920.	1919.
Beef	122,483 lbs.	143,503 lbs.	175,689 lbs.	224,620 lbs.
Veal	4,588 ..	4,572 ..	2,624 ..	6,239 ..
Mutton	6,360 ..	8,458 ..	76,264 ..	36,383 ..
Bacon and Ham ..	508 ..	..	1,955 ..	1,642 ..
Pork	11,238 ..	4,963 lbs.	4,106 ..	5,848 ..
Offals	32,514 ..	18,856 ..	21,457 ..	20,713 ..
Horse Flesh .. ..	..	..	600 ..	3,672 ..
Rabbits	21,497 ..	194,243 lbs.	66,893 ..	37,229 ..
Poultry	5,709 ..	5,690 ..	1,608 ..	3,278 ..
Game	1,124 ..	797 ..	220 ..	198 ..
Eggs	29,655 ..	50,646 ..	93,060 ..	77,235 ..
Cheese	896 lbs.	4,203 lbs.	12 lbs.	2,469 lbs.
Fish	78,189 ..	123,757 ..	129,452 ..	176,955 ..
Shellfish	77,484 ..	99,269 ..	57,057 ..	27,409 ..
Fruit	21,758 ..	11,886 ..	15,151 ..	19,671 ..
Dried Fruit .. ..	..	..	..	700 ..
Dates .. ..	..	..	..	15,867 ..
Vegetables	40,931 lbs.	27,094 lbs.	64,860 lbs.	47,980 ..
Inedible fungi ..	110 ..	..	40 ..	10 ..
Edible fungi ..	138 ..	1,317 ..	40 ..	332 ..
Butter .. ..	..	382 ..	3,789 ..	5,401 ..
Margarine .. ..	..	..	..	4,480 ..
Flour .. ..	..	..	700 ..	140 ..
Yeast	876 lbs.	6,709 lbs.	2,240 lbs.	504 ..
Groceries .. ..	..	..	..	2,796 ..
Tinned Goods ..	9,903 lbs.	9,443 lbs.	10,918 lbs.	1,656 ..
Sundries .. ..	..	424 ..	280 ..	51 ..

Tuberculous Carcasses.—The number of carcasses condemned for tuberculosis during 1922 was as follows: 117 carcasses of beef and organs, 25 carcasses of pork and organs.

INFECTIOUS AND OTHER DISEASES.

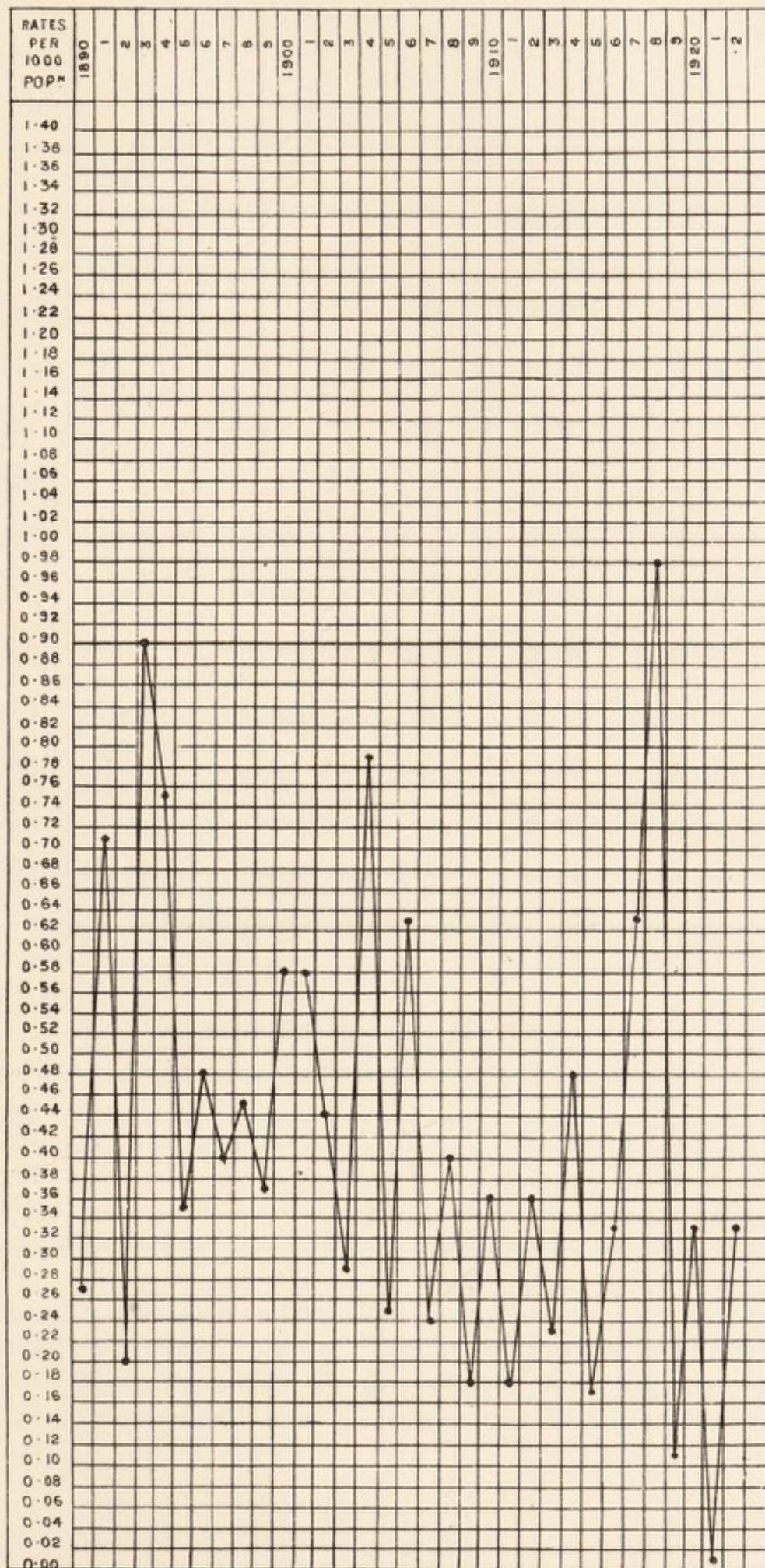
A complete summary of cases notified of all the notifiable infectious diseases will be found in the Appendix (Table 11).

Smallpox.—One case of smallpox was notified during the year ; the course of the disease was uneventful and complete recovery ensued. The patient was a man aet. 56 who was engaged as a labourer on the Leeds Corporation Waterworks extension scheme at Colsterdale, some 46 miles from Leeds, and who had returned to Leeds because he was feeling unwell. At these works were men from various parts of Yorkshire including Doncaster and Middlesbrough in both of which towns smallpox existed, and it is practically certain that the case in question arose from contact with an infected person or persons from the latter district. Following immediately upon notification the patient was removed to the Smallpox Hospital at Killingbeck and all those living in the same house were re-vaccinated and quarantined in the Isolation Cottages. The house, together with the bedding and clothing of the patient and contacts, were disinfected. Indirect contacts to the number of 36 were traced and kept under observation for 16 days. Information as to the occurrence of the case was sent to Colsterdale where the contacts were re-vaccinated and kept under observation. As a result of the precautionary measures taken no further case of the disease was reported.

Measles.—The year 1922 proved to be an epidemic one as far as this disease was concerned. Altogether 10,078 cases of the disease were notified, which included 146 German measles. The total number of deaths registered was 152 giving a death-rate for the City of 0.33 per thousand of the population, which is 0.65 below the rate recorded in the epidemic of 1918 when the notified cases numbered 6,714 and the death-rate was 0.98. The notifications of measles received in 1922 exceeded in number those of any year since the disease became notifiable in 1916.

The epidemic which broke out in June commenced simultaneously in two wards of the City, namely, Headingley

MEASLES DEATH RATE. 1890 - 1922.



MEASLES.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1912	..	..	159	0·36	0·35
1913	..	..	108	0·23	0·29
1914	..	..	218	0·48	0·25
1915	..	..	78	0·17	0·46
1916	6,911	15·48	149	0·33	0·16
1917	5,094	11·62	277	0·63	0·31
1918	6,719	15·71	417	0·98	0·29
1919	2,605	6·05	48	0·11	0·10
1920	5,523	12·30	148	0·33	0·19
1921	240	0·52	5	0·01	0·06
1922	10,078	21·59	152	0·33	0·15

AGES AT DEATH FROM MEASLES.

1922	0-1	1-2	2-3	3-4	4-5	5-10	10-15	Total.
No. of Deaths	35	61	30	12	4	10	..	152

on the north of the river and New Wortley on the south, and reached its peak in November. On the North it spread from Headingley to North West, Brunswick, North and New Wards in order of naming. On the South side the spread was from New Wortley

Ward simultaneously to Armley and Wortley and Holbeck, and thence to West Hunslet, East Hunslet, South, East and North East. By August the disease was general throughout the City, and, though certain wards were more seriously involved than others, there was no part of the City area which entirely escaped. Although the number of cases notified was so great the mortality was remarkably low, from which one would adduce either that the type was mild or that the public having benefited from past experience of the disease, were in a better position to grapple with it successfully. Undoubtedly the open nature of the weather throughout the whole of the Autumn and Winter played a considerable part in reducing the number of cases complicated by such conditions as pneumonia and broncho pneumonia. Full advantage was taken of the information obtained by notification and the homes where the disease was present were regularly visited and every effort made to ensure that the patients had proper nursing and treatment.

In the beginning of November a ward of 40 beds at Killingbeck Sanatorium was opened for the reception of cases occurring in institutions and in the grossly overcrowded houses which exist in some parts of the City. The number admitted to the ward up to the end of the year was 88, in addition to which 53 cases were treated in the wards of the City Fever Hospital at Seacroft, making a total of 141 receiving institutional treatment during the year.

Acting in conjunction with the School Medical Officer, School closure, either partial or total, was effected in 124 Schools; the Police Authority closed 37 Picture Houses to children under 13 years of age for varying periods; whilst letters were sent to the Superintendents of 371 Sunday Schools asking that children under seven years of age might be excluded until the epidemic in the neighbourhood had subsided.

That the death-rate was so low notwithstanding the large numbers involved is a matter for congratulation. But about the damage rate one cannot feel so happy. Past experience has taught one to fear the aftermath of Measles more than the actual disease. The battle has been fought and won and the loss in killed we know, but the number of the wounded no one can compute.

Whooping Cough.—The number of deaths from this disease occurring in the City was 115, an increase of 43 (or 59·7 per cent.) on the number registered during 1921. All of the deaths registered with the exception of 6 were in children under five years of age. The death-rate was 0·25 as compared with 0·15 during 1921. This is another of the damaging diseases of childhood, which, in company

WHOOPING COUGH.

Year.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1912	54	0·12	0·23
1913	94	0·20	0·15
1914	141	0·31	0·22
1915	158	0·34	0·23
1916	45	0·10	0·18
1917	69	0·16	0·13
1918	130	0·30	0·30
1919	66	0·15	0·07
1920	100	0·22	0·12
1921	72	0·15	0·12
1922	115	0·25	0·16

AGES AT DEATH FROM WHOOPING COUGH.

1922	0-1	1-2	2-3	3-4	4-5	5-10	10-15	Total.
No. of deaths	47	39	16	4	3	6	..	115

with Measles, accounts for much of the disease and disablement which occurs during late childhood and adolescence. More attention should be paid to these two diseases both by parents and doctors than is the case at present.

Scarlet Fever.—As far as this disease is concerned 1922 was an epidemic year, no less than 2,722 cases being notified during the period, and of these 2,355 were admitted to hospital. Owing to the great demand for hospital treatment preference had to be given to cases occurring in overcrowded houses and institutions where isolation was absolutely impossible. Nowadays it is generally acknowledged that only such cases as cannot be adequately isolated and provided with proper medical and nursing attention in their own homes need be removed to hospital. It is an open question indeed whether the hospital treatment of scarlet fever during the last twenty or thirty years has had any appreciable effect upon the incidence of the disease in this country. One cannot help thinking that hospital treatment and all the expense that it involves can only be justified if the accommodation so provided is reserved strictly for (a) cases occurring in overcrowded houses, institutions, etc., (b) cases which in themselves are so severe that institutional

CASES OF SCARLET FEVER NOTIFIED IN EACH QUARTER
SINCE 1914.

YEAR.	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Year Total.	
	Heard of.	Removed to Hos-pital.	Heard of.	Removed to Hos-pital.	Heard of.	Removed to Hos-pital.	Heard of.	Removed to Hos-pital.	Heard of.	Removed to Hos-pital.
1914 ..	318	284	290	258	318	290	420	375	1,346	1,207
1915 ..	387	347	405	369	340	311	322	296	1,454	1,323
1916 ..	323	292	261	237	156	141	141	121	881	791
1917 ..	135	122	104	94	118	109	186	172	543	497
1918 ..	147	124	95	89	133	122	195	157	570	492
1919 ..	230	211	223	213	323	306	564	514	1,340	1,244
1920 ..	388	348	287	266	329	303	359	327	1,363	1,244
1921 ..	325	302	260	239	313	288	628	548	1,526	1,377
1922 ..	540	476	503	483	708	643	971	753	2,722	2,355

treatment is imperative if serious permanent damage to the patient is to be obviated. In Leeds the problem is made less easy by the preponderance of houses of the back-to-back type which admittedly are not suited for the nursing and care of any sick person, but particularly so to one suffering from such a disease as scarlet fever. This remark especially applies to the older type of back-to-back house. On the whole, the type of disease prevalent was of a mild variety; in fact, in many cases diagnosis was extremely difficult owing to the mildness of the symptoms and the evanescent character of the rash. As a consequence the number of missed cases must have been considerable; many cases were notified only when the "peeling" stage had commenced, whilst some never desquamated at all and were probably wrongly labelled scarlet fever. These doubtful cases undoubtedly helped to keep up the infection and were in some degree responsible for prolonging the epidemic.

SCARLET FEVER.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1912	1,227	2.75	40	0.09	0.05
1913	1,311	2.82	15	0.03	0.06
1914	1,346	2.94	30	0.07	0.08
1915	1,454	3.17	30	0.07	0.07
1916	881	1.97	23	0.05	0.04
1917	543	1.24	7	0.02	0.02
1918	570	1.33	19	0.04	0.03
1919	1,340	3.11	23	0.05	0.03
1920	1,363	3.04	17	0.04	0.04
1921	1,526	3.28	14	0.03	0.03
1922	2,722	5.83	33	0.07	0.04

The number of deaths registered was 33, and the death-rate was 0.07, as compared with 14 deaths and a death-rate of 0.03 last year. The 1922 epidemic really started in 1921 as will be seen from the subjoined table, which gives the incidence in quarters for both years.

It is interesting and instructive to note the rate of damage amongst cases of the disease treated in their own homes compared with those treated in hospital. To know something of the loss of life entailed by an epidemic of disease is valuable, but to be able to estimate the amount of the actual damage done to the survivors is from the point of view of communal health and efficiency of even greater importance. The following facts have been ascertained with regard to the damage sustained by patients treated in their own homes and in hospital. Of the 2,214 cases treated in hospital, 166 (or 7.5 per cent.) suffered permanent damage of one kind or other, whilst of the 327 (investigated) cases treated at home 45 (or 13.8 per cent.) were similarly crippled.

Erysipelas.—Notifications were received of 228 cases of this disease and 11 deaths were attributed to it being an increase of one over those recorded in the previous year. The death-rate was 0.02.

Puerperal Fever.—There were 35 cases notified during the year of which 45.7 per cent. were in the practice of midwives and the remainder 54.3 per cent. in the practice of doctors or in institutions. The deaths recorded numbered 14 which is equal to a rate of 0.03 per thousand of the population. In 1921 there were 31 cases and 8 deaths with a death-rate of 0.02. That cases of puerperal sepsis still continue to occur is a reproach on modern medicine and demonstrates the need for better teaching of midwife and doctor in aseptic technique. If there must be deaths in child-bed they should certainly not be from sepsis.

Encephalitis Lethargica.—Three cases of this disease were notified during the year and all three died. Although this disease appears to be of low infectivity the usual precautions were taken as in the case of the other infectious diseases.

Acute Anterior Polio-Myelitis.—Only five cases of this disease were notified during the year, three of which died.

Cerebro-Spinal Meningitis.—Three deaths from this disease were recorded during the year, but only one of them was notified during life.

Diphtheria.—The number of cases notified during 1922, *viz.*, 470, was the lowest since 1916, and it is encouraging to note that the death-rate 0.06 is the lowest ever recorded. Last year the notifications numbered 665 and the death-rate was 0.08. Of the total cases notified in 1922, 428 (or 91.1 per cent.) were treated in the City Hospitals, Seacroft, which probably to some extent accounts for the low rate of mortality. In addition, the type of disease has been of diminishing virulence for some years.

DIPHTHERIA AND CROUP.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1912	705	1.58	95	0.21	0.12
1913	880	1.89	89	0.20	0.12
1914	700	1.53	59	0.13	0.16
1915	402	0.88	51	0.11	0.17
1916	423	0.95	40	0.09	0.16
1917	549	1.25	60	0.14	0.13
1918	542	1.27	47	0.11	0.14
1919	811	1.88	43	0.10	0.13
1920	885	1.97	64	0.14	0.15
1921	665	1.43	38	0.08	0.13
1922	470	1.01	28	0.06	0.11

Enteric Fever.—The total number of cases notified was 14, which is the smallest number on record. The number of deaths recorded was 7, making a death-rate of 0.01. Last year the number of cases notified was 24, the deaths 2 and the death-rate 0.00. This

continued steady decline in the incidence of enteric fever is largely due to the replacement of privy middens by more modern appliances as well as to the improved sanitary conditions both inside and outside the homes of the citizens.

ENTERIC FEVER.

Year.	Cases notified.	Case-rate.	Deaths.	Death-rate. LEEDS.	Death-rate England and Wales.
1912	65	0·15	18	0·04	0·04
1913	85	0·18	19	0·04	0·04
1914	84	0·18	23	0·05	0·05
1915	106	0·23	21	0·05	0·04
1916	48	0·11	9	0·02	0·03
1917	37	0·08	7	0·02	0·03
1918	42	0·10	5	0·01	0·03
1919	33	0·08	8	0·02	0·02
1920	29	0·06	4	0·01	0·01
1921	24	0·05	2	0·00	0·02
1922	14	0·03	7	0·01	0·01

CASES OF ENTERIC FEVER MONTH BY MONTH.

Jan.	Feb.	March	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
—	1	—	1	1	1	—	2	1	2	4	1

Malaria.—Fifteen cases of malaria were notified as occurring in the City during the year, and in two of these malaria was the immediate cause of death.

Dysentery and Trench Fever.—Only one case of each of these diseases was notified as occurring in the City during the year.

Ophthalmia Neonatorum.—The number of notifications of this disease received during the year fell to 66. In 1921 there were 107, and 141 in 1920, so that the incidence has been steadily declining for the last three years. This is something for which the City should be truly thankful, because when one remembers that one quarter of all the cases of blindness in the country is due to ophthalmia neonatorum, it must be evident that as the disease becomes less prevalent the number of cases requiring treatment in special blind schools and institutions will also shrink. The cause of ophthalmia neonatorum is gonorrhœa in the mother so that the reduction in the number of cases may be taken as an indication that the amount of gonorrhœa amongst women is diminishing. Of the cases notified, 23 occurred in the practices of medical practitioners, 31 in those of midwives, and 12 in institutions. The number of cases treated at home by private doctors or as out-patients at the Leeds General Infirmary or Infant Welfare Centres was 44, whilst 22 were treated as in-patients, namely, 3 in the Leeds General Infirmary, 3 in the Township Infirmary, and 16 in the Maternity Hospital.

In addition to the above, 107 cases of discharging eyes were reported by midwives or health visitors.

As in former years the district nurses undertook the treatment of cases nursed in their own homes. The number of cases so attended was 19.

Midwives practising in the area have continued to be supplied with Argyrol solution for instillation into the eyes of the new born.

The subjoined table gives full particulars of the results of treatment.

DAY OF ONSET FROM BIRTH.

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	10th-15th	15th-20th	20th-25th
No. of Cases	-	3	2	5	6	8	10	3	1	13	13	2	-

The result of treatment was as follows:—

Recovery apparently perfect	..	..	58
Recovery not perfect	..	..	2
Sight of both eyes affected	..	..	1
Still under treatment	..	..	—
Died	..	..	2
Result not known owing to removal	..	..	3

Diarrhœa and Enteritis.—The number of deaths recorded under this heading during the past year was 92 as compared with 184 in the year 1921. The meteorological table given on page 67 gives particulars of temperature and rainfall during the year.

DIARRHŒA AND ENTERITIS DEATHS UNDER TWO YEARS FROM
1912 TO 1922, WITH RATES PER 1,000 BIRTHS.

Year.	Deaths.	Rate per 1,000 Births.	
		Leeds.	England and Wales.
1912	114	11·1	9·2
1913	339	31·2	24·2
1914	287	26·9	21·1
1915	282	28·6	18·9
1916	214	22·7	13·1
1917	171	22·6	12·8
1918	146	19·8	11·7
1919	140	18·5	10·2
1920	140	12·5	8·9
1921	184	18·1	16·1
1922	92	9·9	6·2

The 92 deaths from diarrhoea and enteritis were of children aged as follows :—

Under one month ..	26	6-9 months ..	7
1-3 months ..	18	9-12 months ..	14
3-6 months ..	17	1-2 years ..	10

The incidence of diarrhoea month by month is shown in the small table.

DEATHS, TEMPERATURE AND RAINFALL IN EACH MONTH OF YEAR.

1922.	Jan.	Feb.	Mar.	April.	May.	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Deaths	3	9	5	2	4	4	5	10	11	15	10	14	92
Temperature °F.	38.88	40.65	42.28	43.87	58.75	60.44	59.92	59.20	56.77	50.44	46.32	44.67	50.30
Rainfall (inches)	2.95	2.18	2.01	2.47	0.83	1.37	3.52	4.64	2.32	0.59	1.47	3.49	27.84

The meteorological data are compiled from returns sent us by Mr. Crowther. They are uncorrected readings, made at 10 a.m. and 4 p.m.

Influenza.—The number of cases of this disease notified to the department during the year was 506 (406 acute primary pneumonia and 100 acute influenzal pneumonia). This figure does not of course represent the total number of cases ; it only refers to those in which pneumonia developed. The number of persons who succumbed to the disease was 169, which is equal to a death-rate of 0.36 per thousand of the population, rather less than the death-rate for England and Wales which was 0.54. The age distribution of the disease is given in the appended table by which it will be seen that the majority of deaths took place in the later age groups, that is from 45 upwards.

AGES AT DEATH FROM INFLUENZA.

1922	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	7	8	10	6	11	29	49	49	169

INFLUENZA.

Year.	Deaths.	Death-Rate. LEEDS.	Death-Rate England and Wales.
1912	41	0·09	0·15
1913	53	0·11	0·18
1914	30	0·07	0·16
1915	102	0·22	0·29
1916	65	0·15	0·25
1917	59	0·13	0·21
1918	1,401	3·28	3·13
1919	623	1·45	1·22
1920	170	0·38	0·28
1921	164	0·35	0·24
1922	169	0·36	0·54

Bronchitis and Pneumonia.—The number of deaths from bronchitis and pneumonia during the year were 596 and 502 respectively, as compared with 556 and 562 for the same diseases during the year 1921. Acute primary and acute influenzal pneumonia are the only diseases in this group which are notifiable and during the year there were 406 cases of the former and 100 of the latter. It will thus be seen that the total number of cases of pneumonia occurring in the City does not correspond with the total number of notifications received. If the full benefit of notification of these diseases is to be obtained it is absolutely essential that all cases of pneumonia coming under these headings should be notified as soon as the condition is diagnosed.

I should like once more to allude to the urgent need of further hospital accommodation for these acute respiratory diseases. It is impossible to nurse such cases with any hope of a successful issue in the houses in some districts of the City, and there is nowhere else for them to go. The present hospital provision for a City of the size and importance of Leeds is anything but creditable, and ought to be increased without delay.

BRONCHITIS.

Year.	Deaths.	Rate per 1,000 Population.
1912	576	1·29
1913	647	1·39
1914	539	1·18
1915	738	1·61
1916	620	1·39
1917	646	1·47
1918	653	1·53
1919	741	1·72
1920	625	1·39
1921	556	1·19
1922	596	1·28

AGES AT DEATH FROM BRONCHITIS.

1922	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	86	24	4	2	5	20	126	329	596

PNEUMONIA.

Year.	Deaths.	Rate per 1,000 Population.
1912	479	1.07
1913	585	1.26
1914	610	1.33
1915	725	1.58
1916	586	1.31
1917	565	1.29
1918	768	1.80
1919	560	1.30
1920	622	1.39
1921	562	1.21
1922	502	1.08

AGES AT DEATH FROM PNEUMONIA.

1922	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
No. of Deaths	118	75	39	12	16	69	98	75	502

Cancer.—The total deaths from this cause in 1922 was 595, giving a death-rate of 1·27 per thousand population. The cause or causes of cancer still remains hidden, although research is continuously going on. It is interesting to note how rapidly the incidence of cancer has increased in recent years. For the decade 1892-1901 the average death-rate per thousand population was 0·73, which increased in the decade 1902-1911 to 0·95, and for the last decade 1912-1921 was 1·14.

Two conclusions are possible in judging these figures, (1) that cancer is a disease of civilization and has grown in prevalence *pari passu* with the development of the human race; this view seems to be supported by the fact that certain native races in Africa and elsewhere, untouched as yet by civilized influences, are entirely free from the disease, or (2) that the resistance of the human

CANCER.

Year.	Deaths.	Death-Rate. LEEDS.	Death-Rate England and Wales.
1912	430	0·96	1·02
1913	525	1·13	1·06
1914	457	1·00	1·07
1915	521	1·13	1·12
1916	500	1·12	1·17
1917	535	1·22	1·21
1918	500	1·17	1·22
1919	575	1·33	1·15
1920	492	1·10	1·16
1921	554	1·19	1·22
1922	595	1·27	

organism to attack by the disease is steadily diminishing ; proof of this may be found in the increasing number of comparatively young people which fall victim to the disease. Whatever be the explanation there cannot be any doubt that the disease is becoming a very serious menace, and calls for earnest thought and united endeavour on the part of the research schools and institutions to find a means of combating the malady. As far as the public itself is concerned the one thing they must bear in mind is that cancer is an insidious disease which attacks the body between the ages of 45-65—that is, middle age. Its beginnings are nearly always of a trivial and insignificant kind and therefore are apt to be overlooked or ignored. The only hope of cure to-day is by early treatment—the delay of a month may mean all the difference between success and failure—therefore at the period of middle age no ailment should be looked upon as trivial, but in every case medical advice should be sought.

The use of radium and X rays have produced encouraging results in the hands of some workers both as a means of cure and as an adjunct to surgical interference.

INFECTIOUS DISEASES HOSPITAL.

The increased prevalence of scarlet fever kept the hospital working at high pressure for the greater part of the year. Speaking generally, the cases admitted were not severe, and the case mortality was therefore low. It ought to be recognised, however, that although the death-rate from the disease may be low, many of those who have suffered from the disease are not infrequently damaged for life. Hospital treatment has an undoubted advantage in reducing the total amount of damage. Proof of this is readily got by a comparison of the results of cases treated in hospital and in their homes. During 1922, of the 2214 cases treated in hospital 166 (or 7·5 per cent.) suffered damage of one kind or other, whilst of 327 investigated cases treated at home 45 (or 13·8 per cent.) were similarly crippled. It will thus be seen that treatment in hospital has advantages other than merely prevention of the spread of the infection.

Particulars of the work of the hospital for the year are set out in the table on page 73.

LEEDS CITY HOSPITALS, SEACROFT.

ABSTRACT FROM REGISTERS.

YEAR 1922.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria.	Typhus.	Enteric Fever.	Pneumonia.	Inf. Diarr.	Other Diseases.	For Quarantine (Cottages).	Total.
Patients remaining in Hospitals and Isolation Cottages, on Saturday, December 31st, 1921	..	..	320	96	..	3	2	2	9	..	432
Admitted from January 1st, 1922, to December 30th, 1922	1	54	2,353	427	..	9	9	3	192	4	3,052
Total treated	1	54	2,673	523	..	12	11	5	201	4	3,484
Discharged	1	42	2,213	448	..	7	7	3	172	4	2,897
Died .. ..	..	5	27	28	..	3	4	2	17	..	86
Mortality per cent. ..	..	10.6	1.2	5.9	..	30	36.4	40	9	..	2.9
Patients remaining in Hospitals and Isolation Cottages, on Saturday, December 30th, 1922	..	7	433	47	..	2	..	..	12	..	501

AMBULANCE WORK AND DISINFECTION.

Ambulances.—Owing to the high prevalence of scarlet fever and measles the ambulances were kept busy during the greater part of the year, indeed there were times when the demand on the services was so great the work could not be overtaken. To make matters worse one of the bedding vans broke down which necessitated the commission of one of the ambulances to convey infected bedding to the disinfecting stations. It is in periods of epidemic disease such as we experienced during the year that the inadequacy of the ambulance service becomes apparent. Three ambulances are not sufficient to serve a City of the size of Leeds and the fleet should be increased by another vehicle at the earliest possible moment. The result of this shortage of ambulances is that when a machine breaks down or an accident takes place there is no spare vehicle to fall back on and either a horse ambulance must be temporarily requisitioned or cases must be allowed to wait until such time as an ambulance is available for removal. I am quite aware that 1922 was an exceptional year but at the same time it is not a safe policy to run a City with an insufficient ambulance service as one never knows when an emergency may arise.

Another urgent need is for an ambulance to remove cases other than infectious cases such as maternity cases. It seems strange that a City like Leeds should be entirely without any such service and has to depend on taxi cabs, horse cabs or any other convenient vehicle to remove cases to the maternity hospital. In connection with the proposal to increase the maternity hospital accommodation in the City by requisitioning beds at the various Poor Law Infirmaries part of the scheme is the provision of ambulance facilities to remove urgent cases. It will therefore be necessary during the year to provide an additional ambulance for this purpose.

The following cases were removed by the ambulances to the City Hospitals, Seacroft and Killingbeck, during 1922 :—

Smallpox	1
Scarlet Fever	2,347
Diphtheria	470
Typhoid Fever	21
Tuberculosis	170
Other Diseases	179
<hr/>	
Total	3,188

In addition 36 cases of Tuberculosis were conveyed to Armley House Sanatorium. Removals of cases from Seacroft and Killingbeck Hospitals to their own homes or to other institutions numbered 77. Over and above these, 18 other journeys were made.

Disinfection.—The following work was done by the Disinfecting Staff :—

Houses disinfected	..	..	..	..	..	3,432
Rooms disinfected	..	..	..	..	..	7,508
Beds and mattresses disinfected	..	..	..	..	..	5,409
Articles of bed clothing disinfected	..	..	..	..	..	26,176
Articles of wearing apparel disinfected	..	..	..	..	..	46,998
Miscellaneous articles disinfected	..	..	..	..	..	8,840

Also 245 infected persons or contacts went, or were taken to one or other of the sanitary depots to have a disinfecting bath and disinfection of clothing carried out.

At the sanitary laundry in Stanley Road, 77,609 articles of bedding, clothing, etc., have been washed and disinfected.

BACTERIOLOGICAL WORK.

The following is a complete summary of the work done for the Health Department by the Department of Pathology and Bacteriology in the Leeds University Medical School, under the supervision of Professor James W. McLeod, the City Bacteriologist.

GENERAL.

NATURE OF TEST.	NUMBER OF TESTS.
Agglutination (Widal) test	7
Blood count	6
Fæces for tubercle bacilli	3
Fæces for typhoid bacilli	3
Histological.—Brain	1
Lung	1
Tumour of breast	1
Tongue	1
Blood clot, breast and tonsils	3
Milk for tubercle bacilli (guinea pig inoculation)	47
Milk for bacterial content	9
Mussels for typhoid bacilli	1
Miscellaneous	35
Pus for tubercle bacilli	4
Shaving brushes for anthrax bacilli	3
Swabs for diphtheria bacilli	1,264
Sputum for tubercle bacilli, &c.	1,794
Tinned fruit for organisms	3
Urine (bacteriological and microscopical exam).	14
Water for bacterial content	49
TOTAL	3,249

WORK DONE IN THE DEPARTMENT OF PATHOLOGY AND BACTERIOLOGY
OF THE UNIVERSITY OF LEEDS IN CONNECTION WITH THE V.D.
REGULATIONS.

NATURE OF TEST.	NUMBER OF TESTS.
For detection of spirochetes—	
for treatment centre	21
for practitioners .. .. .	..
for institutions .. .. .	..
For detection of gonococci—	
for treatment centre	531
for practitioners	21
for institutions	190
For Wassermann reaction—	
for treatment centre	3,583
for practitioners	119
for institutions	1,240
Other examinations—	
for treatment centre	77
for practitioners .. .. .	..
for institutions .. .. .	..
TOTAL	5,782

VENEREAL DISEASE.

During 1922 the deaths of 36 persons were certified as having been due to syphilis. Of these 27 were infants under two years of age—therefore congenital—and the remainder of varying ages up to 75 years. It cannot be pretended that 36 represents the total loss of life attributable to this disease. What it does represent is the number of deaths which were truly and correctly certified, which is quite a different thing. There must have been many others in which, whilst the immediate or secondary cause of death was some other disease, the first and chief cause was syphilis. The remedy for this is the amendment of the law relating to the registration of births and deaths, making the certification of death confidential, and directing that the certificate should be handed, not as now, to the nearest relative of the deceased, but sent direct to the Registrar.

Work of Treatment Centre.—Another year has passed, but still the old unsatisfactory conditions under which the work of the Venereal Disease Clinic at the Leeds General Infirmary is carried on continues. It was in 1916 that negotiations were first entered into with the Board of the Leeds General Infirmary for the reservation of a special block for the treatment of venereal diseases. Now at the end of 1922, six years after the Centre was first established, the Ministry of Health and Infirmary Board have agreed upon a scheme, and work is about to be commenced on the Isolation Block, which, when completed, will transform it into an up-to-date centre, in which separate clinics for men and women patients can be arranged without all the difficulty and trouble there has been under the existing conditions, and where the staff, medical and nursing, will be able to carry on their work in comfort. That the work done by Dr. Bibby and his nurses has been of such volume and has reached such a high standard, notwithstanding the handicap of totally unsuitable premises is greatly to their credit and deserves the highest commendation. The delay in getting the new block into commission has been quite inexcusable, and only serves to emphasise the difficulty there is of getting an old institution to appreciate and adapt itself to modern ideas.

PERSONS TREATED AT THE GENERAL INFIRMARY, LEEDS.
(LOCAL TREATMENT CENTRE).

				1921.		1922.		Increase or decrease.	
				M.	F.	M.	F.	M.	F.
Syphilis ..	first cases	..	650	319	391	225	- 259	- 94	
Soft chancre	"	..	..	..	..	..	..	..
Gonorrhœa	"	..	534	81	493	66	- 41	- 15	
Other diseases									
not Venereal	"	..	184	37	128	33	- 56	- 4	
Total	..	..	1,368	437	1,012	324	- 356	- 113	
Total attendances of all cases				39,873		32,292		- 7,581	
Aggregate No. of In-patient days				391		495		+ 104	
No. of doses of Salvarsan substitutes				16,308		13,330		- 2,978	
Pathological specimens examined :—									
Spirochetes				53		32		- 21	
Gonococci				910		705		- 205	
Other organisms .. .. .				..		82		+ 82	
Blood—Wassermann reaction				5,950		5,004		- 946	

LEEDS PATIENTS

	Year 1921.		Year 1922.		Increase or Decrease.	
	M.	F.	M.	F.	M.	F.
Syphilis first cases	411	224	257	161	- 154	- 63
Soft chancre .. ..	..	..	..	..	..	..
Gonorrhœa	404	59	376	48	- 28	- 11
Other diseases, not Venereal	153	32	94	23	- 59	- 9
Total	968	315	727	232	- 241	- 83
Total attendances of all cases	28,937		23,380		- 5,557	
Aggregate No. of In-patient days	248		287		+ 39	
No. of doses of Salvarsan sub- stitutes	11,170		9,117		- 2,053	
Pathological specimens examined :—						
Spirochetes	39		21		- 18	
Gonococci	716		531		- 185	
Other organisms .. ..	..		77		+ 77	
Blood—Wassermann re- action	4,143		3,583		- 560	

The number of cases attending the local venereal disease centre at the Leeds General Infirmary continued to fall during the year. First cases amounted to 1,336 (1012 males and 324 females), which is less by 469 (356 males and 113 females) than the figure for 1921, which was 1,805 (1,368 males and 437 females). These cases include not only those belonging to the City, but also those sent by the contributing Authorities—West Riding, North Riding, East Riding, Wakefield and Barnsley. Leeds cases numbered 959 (727 males and 232 females) as compared with 1,283 (968 males and 315 females). The total attendances of all cases was 39,873 in 1921 and 32,292 in 1922, and of Leeds cases 28,937 in 1921 and 23,380 in 1922. The total number of Leeds persons attending for treatment during the year was 3,845. Broadly speaking, therefore, the position was that there was a considerable drop in the number of first cases amounting in the case of Leeds persons to 25 per cent., and the attendances showed a corresponding reduction. It must not be assumed however that because the number of cases seeking treatment at the Centre has decreased, the incidence of venereal disease in the City is necessarily lessening, though undoubtedly the tendency is in that direction. There is evidence that the number of infected individuals who seek treatment elsewhere is considerable. Women particularly prefer not to attend the public clinic, but to be treated privately or at centres outside their own town. This to some extent explains the preponderance of males over females on the register at the Leeds General Infirmary. There is another reason for this discrepancy, namely, that women are very reluctant to disclose their condition and delay treatment till the very last moment. Also it must not be forgotten that the number of infected females is probably much below that of males.

That the number of persons who abandon treatment and give up attending the clinic before cure is complete should be as low as 7.8 per cent. (it was 13.2 per cent. in 1921) is a matter for congratulation. Of course, the fact that as many as 7.8 per cent. default means not only that money is being wasted but that sources of infection which ought to have been sterilized remain active. There is only one remedy for this state of things and that is to make

the diseases notifiable conditionally or unconditionally. I am aware that there are many obstacles in the way of notification, but they are not insurmountable, and in the case of other diseases perhaps not of the same nature but in some respects similar, have been surmounted. The problem of the concealed case is one which will have to be tackled sooner or later, and I can see no other way or dealing with it than by notification. A modified form of notification applicable only to persons attending the public clinics, as has been suggested, would not, I think, meet the case. If notification is to be introduced it must apply all round and must not be restricted to any particular section or class of the community.

The use of prophylactic methods has not been adopted very widely in this country, and where they have been adopted they have not been attended with very convincing or encouraging results. They may be all very well in communities of trained and disciplined men as in the Army or Navy—even there they have not proved so successful as was expected—but in a civil population they are useless and even dangerous.

Institutions.—The in-patient days at the Leeds General Infirmary were increased from 391 in 1921 to 495 in 1922. Likewise the number of patients in receipt of treatment at the Maternity Hospital increased from 113 in 1921 to 153 last year, and the in-patient days from 1,735 to 2,142. These increases are significant, and may be taken as evidence that women prefer to attend at a centre which exists for women only rather than at one open to both sexes.

There was quite a considerable drop in the number of patients treated in the Hope Hospital during the year. In 1921 the number was 71 and last year 58, a decrease of 13, whilst the number of new admissions was 20 less in 1922 than in the previous year.

Full particulars of the cases admitted to and treated in the Maternity and Hope Hospitals are given on page 81.

MATERNITY HOSPITAL, 42, HYDE TERRACE.

	Cases in residence on Dec. 31st, 1921.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 30th, 1922.
Syphilis	3	128	126	5
Gonorrhœa .. ..	..	13	12	1
Syphilis and Gonorrhœa	2	7	9	..
Other disease .. ..	..	..	..	..
Total	5	148	147	6

Total days in residence 2,142

No. of doses of Salvarsan substitute .. 697

Pathological specimens examined :—

Spirochetes 142

Gonococci 15

Other organisms —

Blood—Wassermann reaction.. .. 203

HOPE HOSPITAL, 126, CHAPELTOWN ROAD.

	Cases in residence on Dec. 31st, 1921.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 30th, 1922.
Syphilis	7	4	8	3
Gonorrhœa	11	20	26	5
Syphilis and Gonorrhœa	2	9	4	7
Other disease	1	4	4	1
Total	21	37	42	16

Total days in residence 5,329

No. of doses of Salvarsan substitute .. 155

Pathological specimens examined :—

Gonococci 86

Blood—Wassermann reaction.. .. 61

Ophthalmia Neonatorum is dealt with on page 65.

Supply of Salvarsan Substitutes.—The number of medical practitioners in the area who were qualified to receive free supplies of salvarsan substitutes was 40 up to December 31st, 1922. The amount of salvarsan substitutes distributed to practitioners was 2,138 doses.

Pathological Work.—The extent to which practitioners have availed themselves of the facilities for pathological examinations provided by the Council is shown on page 76.

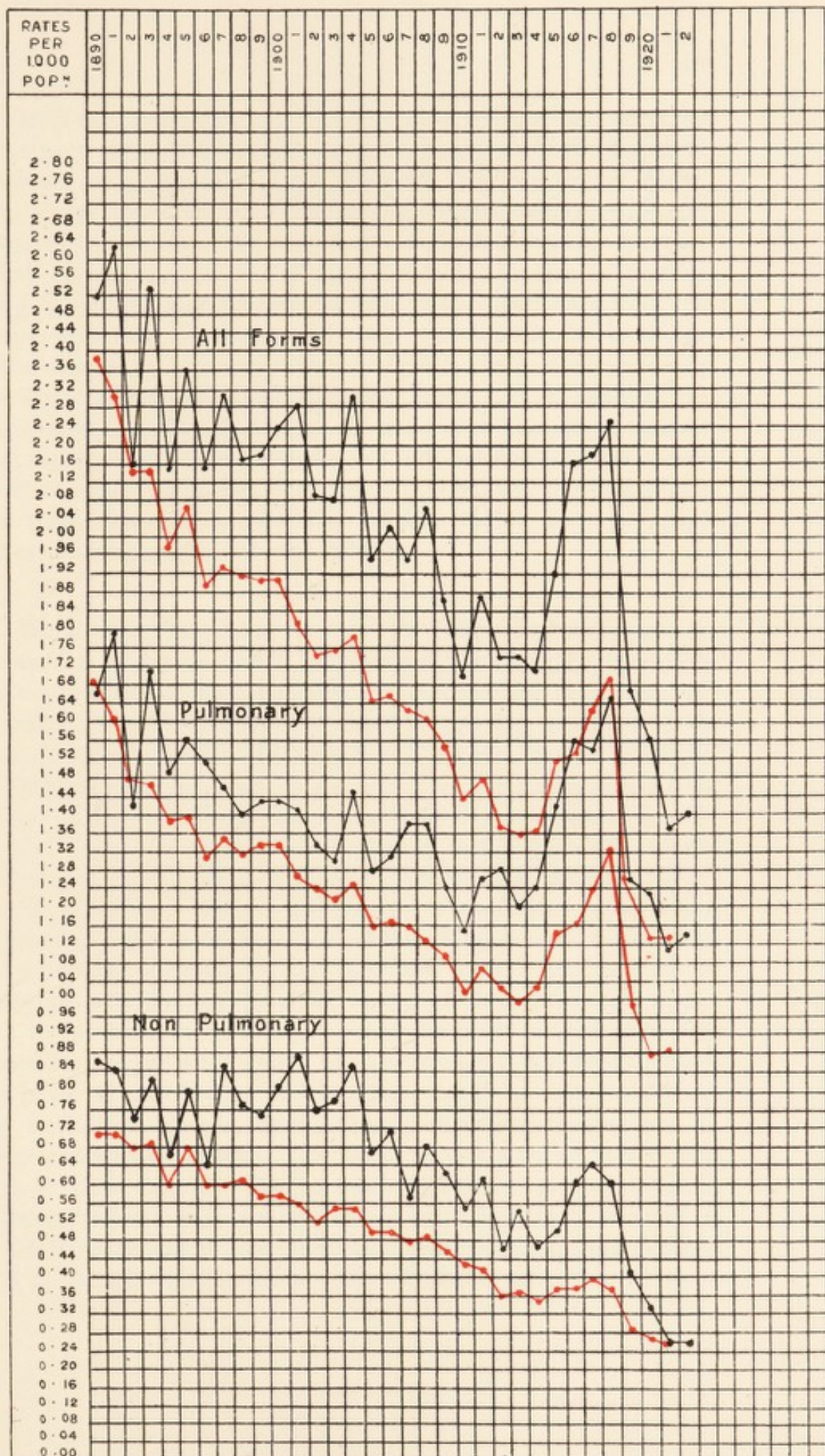
Education and Propaganda.—The local branch of the National Council for Combating Venereal Disease continued to carry out its duties in connection with the spread of knowledge by propaganda and in other ways during the year. It took a prominent part in a Great White Crusade organised by the Leeds Churches in the Autumn, the object of which was to rouse the people to a sense of their responsibility with regard to public morals. Several of the members gave their services as speakers. The audiences at many of the Meetings were very good and altogether the Campaign was quite a success. In addition to that special effort other meetings were held in connection with Brotherhoods, Guilds, Adult Schools, etc., at which addresses bearing on the subject were given. The number of these were eleven. Books and pamphlets dealing with the subject were distributed at all the more important meetings.

The Branch met three times during the year and the Executive Committee six times.

TUBERCULOSIS.

In 1913 when tuberculosis was added to the list of notifiable diseases and facilities for its treatment were made available it was confidently expected that the disease would quickly disappear. For a time it looked as though these expectations were to be realized. Then came the war and the death-rate instead of falling began rapidly to rise. In 1918, the year of the great influenza epidemic it reached its peak, namely, 2.25 per thousand of the population since which date it has fallen steadily though slightly. In 1922

TUBERCULOSIS DEATH RATE.— 1890 - 1922.



LEEDS ——— BLACK.
ENGLAND AND WALES — RED.

the death-rate from all forms of the disease was 1.40 as compared with 1.74 in 1913 a decrease of 0.34 in ten years. In order to achieve this small advantage it has been necessary to spend (up to March, 1923) a sum of not less than £116,444 which represents the amount expended in administering the whole tuberculosis scheme for that period. Last year the cost of the tuberculosis service to the City was £18,294, and instead of a decrease in the death-rate from the disease there was an increase of 0.03. As regards the incidence of the disease the results are rather better, the case-rate in 1914 (the first complete year of notification) being 3.53 as against 2.14 last year or a decrease of 1.39. It must of course be recognised that many cases of tuberculosis are not notified and are never heard of until death has occurred. One makes this confession with regret because the fact that notification has been imperfect makes criticism of the scheme difficult.

When everything however has been said that can be said in extenuation or explanation of the failure of our efforts to reduce the death-rate from the disease the fact must still be admitted that the campaign against tuberculosis has miscarried. The results obtained have not been commensurate with the amount of time, thought and money expended and we have come to the point where it is necessary to consider whether it is worth while continuing on the present lines or whether we should not scrap the whole scheme and start over again. Where the mistake has been made, it seems to me, is, that we have gone for treatment rather than prevention. We have expended thousands of pounds in building and equipping dispensaries and sanatoria for the amelioration of symptoms whilst very little effort, if any, has been made to grapple with the problem at its source. From the point of view of health economics it is perfectly absurd to spend money in patching up lives which are already broken and hopeless merely in order that they may continue to spread the infection in their own families and in the neighbourhood in which they live. Surely a better way would be to let these cases die out, the sooner the better, preferably in an isolation hospital or home and divert our energies to treatment of the contacts and of those who by reason of other diseases have been so weakened as to be possible victims of attack.

The whole problem of tuberculosis is bound up with housing and food supply and I am convinced that if the places in which the people are called upon to spend the greater part of their lives were hygienic throughout and, if the food by which life is sustained were not only wholesome but free from the germs of disease, tuberculosis like leprosy would very rapidly become a thing merely of historical interest. What is wanted is a truer appreciation on the part of the public as well as of members of the medical profession of the results of disease generally. A man suffering from influenza is not completely cured when pulse and temperature return to normal: he is still a maimed man and his tissues are in a highly receptive state. The same may be said of a child who recovers from measles or whooping cough, cure is not complete until the resistance of the body has been restored to normal. Such restoration cannot be achieved unless under the very best conditions.

Pure air, sunlight, abundance of good, fresh, wholesome food and facilities for exercise of the proper kind suited to the needs of the body are all necessary and essential, but unfortunately they are available only to a minority of sufferers. How is this lack to be made good? By the establishment of recuperative centres or preventoriums up and down the whole country. To these centres should be referred all cases which have not the facilities for proper convalescence in their own homes, and the money now spent in a useless attempt to cure tuberculosis from the top should be expended in circumventing it at the bottom. At the same time it might be possible, indeed I am tolerably certain, that the Friendly Societies and other bodies interested in the care of the sick would be willing to stand in and bear a portion of the expense. Of the result of such a scheme I have very little doubt because by restoring the power of resistance to the body of a person weakened by disease or from any other cause and by putting into his hands the proper weapons for protecting himself against tuberculosis, the probable victims of that disease would be immediately reduced and it would not be long before the effect was seen on the death-rate. By recuperative centres I do not mean merely holiday homes, though there would be an element of the holiday home about them, but places where convalescence can take place under proper

trained supervision. The ordinary convalescent home of to-day is far too often left to run itself and frequently degenerates into a sort of centre for loungers. The benefit to be derived from convalescence in places run on such haphazard lines is of doubtful value, even in some cases harmful, because of the absence of proper supervision and discipline.

The question may be asked why does the Leeds death-rate from tuberculosis compare so unfavourably with many of the other large towns of England and Wales. The answer is firstly, that Leeds is an industrial City of considerable antiquity and possesses areas in which the houses besides being old and worn out are huddled together on the site and get less than their fair share of air and sunshine, many of its population are engaged in what are known as unhealthy occupations and it is very smoky. Secondly, the tuberculosis scheme in operation is not as complete as it might be. In 1918 a comprehensive scheme for the treatment of tuberculosis was prepared and approved by the City Council and the Ministry of Health. But that scheme, owing to the need for economy, has never materialised—it is still a paper scheme. Had it come into operation it would have meant better dispensary facilities, an entirely new sanatorium including a special sanatorium for children, a special open-air residential school, and a bigger staff of medical men and nurses trained in the handling and treatment of the disease. At present the staff of doctors at the Central Dispensary is inadequate and ought to be increased at once by the appointment of another full time officer. As a result of the insufficiency of doctors the Dispensary organisation is not satisfactory and cannot be made so until the staff is augmented as suggested.

In the matter of sanatoria Leeds is not well served. At present the only institutions of the kind are Killingbeck, a converted smallpox hospital, and Gateforth and Armley House, converted mansion houses. A proper sanatorium built on up-to-date lines is badly wanted. As regards the treatment of children, Leeds—with the exception of 40 beds at Killingbeck reserved for pulmonary cases is entirely dependent on outside institutions. Cases requiring surgical treatment are sent either to Lord Mayor Treloar's Hospital, Alton, Hampshire, or to the Marguerite Home, Thorp Arch.

Recently a proposal has been put to the Ministry of Health to utilise the Hollies, Weetwood, for the treatment of pre-tuberculous children. If the Ministry give their consent to the proposal it will mark a very important advance in the campaign.

I would again call the attention of the public to their part in the fight, namely, to keep the air clean by burning less raw coal and more gas, electricity and smokeless fuel; to keep streets, highways, railway station platforms, tramcars, parks and other public places free from spit and other filth; to ventilate their houses, theatres and churches; to make the most use of the sunshine; to eat only clean and wholesome food; and to preserve their bodies in good health so as to resist invasion by the germs of the disease.

Statistics.—During the year, 824 cases of pulmonary and 172 of non-pulmonary tuberculosis were notified, making a total of 996 cases. Of these 536 were males and 460 females. Compared with the previous year, this is a decrease of 43 in the number of notifications of pulmonary tuberculosis and a decrease of 62 in the number of notifications of non-pulmonary tuberculosis, and compared with the average cases notified for the previous five years, a decrease of 221 in pulmonary tuberculosis and of 74 in non-pulmonary tuberculosis. Of the cases notified during 1922, 869 were by medical practitioners, 5 by school medical officers, whilst 122 came from institutions. The number of cases of pulmonary tuberculosis not heard of until the time of death was 114, which is an increase of 36 on the figure for the previous year, or put in another way, of the total number of deaths from pulmonary tuberculosis which occurred during the year, all but 114, (or 21·4 per cent.) had been previously notified to the Public Health Department. After the good record of 1921 it is very discouraging to find this increase in the number of unnotified cases. It shows that the general medical practitioners in the City are still failing to appreciate the value of notification. If they would only realise that on the fulfilment of this simple duty depends to a great extent the success of the measures adopted for the prevention and cure of the disease I am sure there would be fewer defaulters. May I venture to express a hope that the current year will show an improvement.

An analysis of the notifications in age groups is given on page 87.

The following tables show the number of notifications of tuberculosis received during the year.

PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	..	8	48	76	86	96	73	30	14	431
Females	1	12	63	103	107	60	31	11	5	393
Totals ..	1	20	111	179	193	156	104	41	19	824

NON-PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males ..	1	20	52	15	10	4	2	1	..	105
Females	1	9	32	17	5	2	-	1	..	67
Totals ..	2	29	84	32	15	6	2	2	..	172

TUBERCULOSIS.

YEAR.	DEATHS.						NOTIFICATIONS.					
	Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.		Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Cases.	Case-rate.	Cases.	Case-rate.	Cases.	Case-rate.
1912	571	1.28	206	0.46	777	1.74	1,444	3.24	..	..	..	..
1913†	557	1.20	250	0.54	807	1.74	1,479	3.18	..	..	..	..
1914	569	1.24	213	0.47	782	1.71	1,310	2.86	307	0.67	1,617	3.53
1915	651	1.42	230	0.50	881	1.92	1,068	2.33	312	0.68	1,380	3.01
1916	695	1.56	268	0.60	963	2.16	1,029	2.31	320	0.72	1,349	3.03
1917	674	1.54	280	0.64	954	2.18	1,081	2.47	336	0.77	1,417	3.24
1918	705	1.65	257	0.60	962	2.25	1,238	2.90	241	0.56	1,479	3.46
1919	542	1.26	177	0.41	719	1.67	1,076	2.50	208	0.48	1,284	2.98
1920	552	1.23	146	0.33	698	1.56	962	2.14	209	0.47	1,171	2.61
1921	519	1.11	122	0.26	641	1.37	867	1.86	234	0.50	1,101	2.36
1922	533	1.14	120	0.26	653	1.40	824	1.77	172	0.37	996	2.14

† Tuberculosis.—All forms made compulsorily notifiable in 1913.

The total deaths from tuberculosis of all types during the year numbered 653, of which 378 were males and 275 females. Compared with the previous year, this is an increase of 12 on the total deaths, and a decrease of 142 on the average of the previous five years. Pulmonary tuberculosis accounted for 533 (or 82 per cent.) of the total deaths, and non-pulmonary 120 (or 18 per cent.). The death-rate from pulmonary tuberculosis was 1.14 per thousand of the population, non-pulmonary tuberculosis 0.26, making a total rate from both forms of tuberculosis of 1.40. These rates are higher with one exception than those for the previous year, which were 1.11, 0.26 and 1.37 respectively, though lower than the average of the previous five years, which were 1.36, 0.45 and 1.81. In connection with the slight increase in the death-rate from tuberculosis during 1922, it may be remarked that the year was one which favoured the development of respiratory complaints. A high death-rate from respiratory diseases generally connotes a correspondingly high loss of life from pulmonary tuberculosis or phthisis. The lungs are very susceptible to climatic changes especially when these are allied with a smoky atmosphere and lack of sunlight.

PHTHISIS DEATHS IN WARDS.

WARD.	Deaths.	Rate per 1000 Population.	WARD.	Deaths.	Rate per 1000 Population.
Central ..	15	1.12	Mill Hill ..	9	1.68
North ..	34	0.79	West	30	1.34
North-East ..	48	1.31	North-West ..	40	1.25
New Ward*..	5	0.63	Brunswick ..	31	1.27
East	70	1.94	New Wortley	27	1.49
South	14	1.07	Armley and Wortley ..	30	0.80
East Hunslet†	29	0.81	Bramley ..	15	0.63
West Hunslet	41	1.11	Headingley ..	53	1.05
Holbeck ..	42	1.40	Total ..	533	1.14

*Roundhay, Seacroft, Shadwell, and Crossgates.

†Including Middleton.

PULMONARY TUBERCULOSIS.

YEAR.	MALES.		FEMALES.		TOTAL.	
	Deaths.	Death rate.	Deaths.	Death rate.	Deaths.	Death rate.
1912	342	1.61	229	0.98	571	1.28
1913	336	1.53	221	0.90	557	1.20
1914	330	1.52	239	0.99	569	1.24
1915	386	1.78	265	1.09	651	1.42
1916	412	..	283	..	695	1.56
1917	378	..	296	..	674	1.54
1918	369	..	336	..	705	1.65
1919	295	..	247	..	542	1.26
1920	316	..	236	..	552	1.23
1921	284	..	235	..	519	1.11
1922	312	..	221	..	533*	1.14

* Of the 533 deaths, 202 occurred in Institutions.

PHTHISIS. DEATHS AT VARIOUS AGES.

1922.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	7	7	6	20	26	125	100	21	312
Females	10	4	11	32	39	87	35	3	221
TOTALS	17	11	17	52	65	212	135	24	533

The distribution of deaths from non-pulmonary tuberculosis according to site of disease, age and sex are given in the following tables.

NON-PULMONARY TUBERCULOSIS. DEATHS.

1922.	Tubercular meningitis.	Abdomin- al.	Bones and Joints.	Other tuber- culosis.	Total.
Males ..	24	21	7	14	66
Females ..	14	14	10	16	54
Totals ..	38	35	17	30	120

AGES AT DEATH.

Ages.	-5	5-10	10-15	15-20	20-25	25-45	45-65	65+	Total.
Males ..	29	4	5	10	3	6	7	2	66
Females	19	4	3	5	4	9	8	2	54
Totals ..	48	8	8	15	7	15	15	4	120

An analysis of the deaths in each group is shown on pages 89 and 90, and the distribution of deaths from pulmonary tuberculosis in the various wards of the City on page 88.

In connection with the latter it will be noticed that the heaviest mortality from phthisis takes place, with the exception of Mill Hill, in wards which are very congested and where slum property is most in evidence, and where the sunlight is most obscured by smoke. Which is another way of saying that we are dealing with a disease largely the outcome of bad conditions of living and preventible if the means and the will were there to tackle the problem seriously.

Institutional Treatment.—Details of the cases admitted to the three Sanatoria, Killingbeck, Gateforth and Armley House are given in the subjoined tables.

As regards Gateforth, great improvements have taken place there during the year, most of them carried out by "patient" labour. It is now a well-equipped training centre for early and arrested cases of the disease. Patients who have passed through it speak in the highest terms of the value of the training they received, and one may anticipate even better results as the place and scheme develops.

A special report on this institution, written by Dr. H. Mainwaring Holt, the Medical Superintendent, to whose untiring energy and wealth of originality the success of the place is due, is appended.

Report on Gateforth Sanatorium by Dr. H. Mainwaring Holt.

Considerable progress has been made during the year in the development and completion of the several sections associated with the methods of treatment pursued at the Gateforth Sanatorium, the object being to interest and instruct the patients in order that they may return to their occupations or be in a position to adopt special methods of training for new occupations.

An introduction to the benefits of an orderly life, a recognition of the all important relationship of work, appetite, and sleep; in short, a course on the art of living, rather than a meek submission to the listless drifting too often associated with institutional treatment.

Apart from the physical benefits derived must be placed the knowledge and experience gained from the several departments hereafter described:—

Gardens.—The gardens have been very largely extended, there being now more than double the area in cultivation than was the case in 1919 and consequently more than four times the produce, so that we are able to provide vegetables, not only for the patients and staff, but also for our pigs, poultry and horse. Nothing is wasted. Every patient has the opportunity of learning ordinary kitchen-gardening, an occupation which is most beneficial and often necessary to retain good health.

Poultry.—We started in a small way, three years ago, to provide eggs for use in the Institution and have had splendid success, producing some 15,488 eggs, during the year 1922, from 152 fowls. If to this we add the fowls consumed in the Institution and sold, it will be seen that hens can be made to pay.

Patients are instructed in poultry breeding and poultry keeping and have the advantage of doing the work in connection therewith in a practical way.

Pigs.—A varying number of pigs are kept and bred from, some are sold, others killed for home consumption. I find the total value of pigs for the year (1922) amounts to £177 14s. 3d. Here again the patients are instructed in pig breeding and pig keeping and have the opportunity of making themselves thoroughly conversant with methods of feeding.

Horse keeping.—We have only one horse, but we are fortunate in having one of the best that could be found for our work. During the past year (1922) there has been almost daily work carting coal, coke, manure, lime, materials, etc. from the station, work on the land, ploughing and harrowing, the removal of rubbish, the making of roads and so on. It must also be noted that all patients with their luggage have to be conveyed to and from the station. I calculate that £1 per day is not too much for horse and man and that £250 is not too large an estimate for the value of work done in this department; formerly all carting was contracted for and was very costly.

Engine and Machine Shops.—During the year we have had new Plant installed for producing Electric Lighting for the Institution. So far it has been fairly satisfactory.

In the machine shop we have a good lathe adapted for wood turning, also a saw bench with three circular saws; both machines have proved invaluable in connection with recent alterations and repairs, saving much hand labour. I have little doubt that they will more than pay for their purchase within the ensuing year.

Blacksmith and Fitting Shops.—We have been able to set up these two shops in a small way, yet sufficient for our wants which chiefly consist of minor repairs connected with our work. Both these shops are very popular and useful and have already paid for themselves.

Joiner's Shop.—We have provided a first class joiner's shop by repairing a dilapidated stable. This shop is used every day and provides an absolutely necessary department for the purposes of instruction. All our work in connection with repairs to buildings, furniture, etc., has been done in this shop under the most favourable conditions of heating, lighting and ventilation.

Paint Shop and Stores.—Adjoining the joiner's shop we have an excellent store for paints, glass and stores of various descriptions. A knowledge of painting and glazing is most useful to men who may have to make and erect their own greenhouses and outbuildings. In addition to the practical instruction afforded in the above named department, lectures are given weekly and these are followed by questions and discussion of the subject chosen.

Women patients have the opportunity of learning something of gardening and of poultry-keeping, but I do not find them enthusiastic over either pursuit, perhaps they may find interest in other directions, at any rate they are not allowed to be altogether idle.

It only remains for me to say that the Institution and out-buildings are now clean and in a good state of repair. No exception can be taken to any one department so far as conditions of health are concerned.

I look forward to an efficient and economic working during the year 1923, with some hope of the scheme becoming more and more self-supporting, but this very much depends upon the class of patient sent to the Institution and the desire of such to work and learn, moreover it means more land and more production by the workers.

It is not without interest to note that some of the patients who have been trained at Gateforth are now engaged in poultry-keeping, farming and gardening, whilst others have either rented or purchased land in the vicinity of the Sanatorium. I have frequent applications for plots of land by patients desiring to live in the country hereabout, after their training here.

PULMONARY TUBERCULOSIS FOR YEAR ENDED 30TH DECEMBER, 1922.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Dec. 31st, 1921	8	82	15	39	144
Admitted	61	309	43	119	532
Discharged	48	281	41	110	480
Died	3	45	4	18	70
Remaining Dec. 30th, 1922	18	65	13	30	126

Average length of stay, 85 days.

ANALYSIS OF CASES DISCHARGED.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested	30	90	25	31	176
„ improved	12	131	11	49	203
„ not improved	6	60	5	30	101
TOTALS	48	281	41	110	480

Restoration of working capacity—				Males.	Females.	Total.
100 per cent. approximately	..			60	29	89
80	..	..	..	82	18	100
60	..	..	..	50	12	62
40	..	..	..	35	21	56
20	..	..	..	30	10	40
10	..	..	..	10	8	18
TOTALS				267	98	365

NON-PULMONARY TUBERCULOSIS FOR YEAR ENDED
30TH DECEMBER, 1922.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Dec. 31st, 1921	1	2	4	..	7
Admitted	10	20	10	10	50
Discharged	11	17	6	8	42
Died .. ..	..	2	..	1	3
Remaining Dec. 30th, 1922	..	3	8	1	12

Average length of stay, 119 days.

ANALYSIS OF CASES DISCHARGED.

KILLINGBECK SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested	3	..	4	..	7
.. improved	5	15	2	7	29
.. not improved	3	2	..	1	6
TOTALS	11	17	6	8	42

Restoration of working capacity—				Males.	Females.	Total.
100 per cent. approximately	..			3	3	6
80	..	..		7	2	9
60	..	..		1	..	1
40	..	..		2	2	4
20	..	..		4	1	5
10	..	..		..	..	..
TOTALS	..	..	..	17	8	25

PULMONARY TUBERCULOSIS FOR YEAR ENDED
30th DECEMBER, 1922.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Dec. 31st, 1921	2	20	22
Admitted	19	113	132
Discharged	9	96	105
Died	2	12	14
Remaining Dec. 30th, 1922	10	25	35

Average length of stay, 85·5 days.

ANALYSIS OF CASES DISCHARGED.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested
„ improved	9	81	90
„ not improved	15	15
TOTALS	9	96	105

During the year at Armley House Sanatorium 35 females had pneumothorax treatment as in-patients and in addition 27 persons attended as out-patients to have the treatment repeated. For this purpose the out-patients made a total of 133 visits.

NON-PULMONARY TUBERCULOSIS FOR YEAR ENDED
30th DECEMBER, 1922.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Dec. 31st, 1921	1	8	9
Admitted	3	5	8
Discharged	3	12	15
Died
Remaining Dec. 30th, 1922	1	1	2

Average length of stay, 114 days.

ANALYSIS OF CASES DISCHARGED.

ARMLEY HOUSE SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested
„ improved	3	8	11
„ not improved	4	4
TOTALS	3	12	15

PULMONARY TUBERCULOSIS FOR YEAR ENDED
30TH DECEMBER, 1922.

GATEFORTH SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Dec. 31st, 1921	1	35	..	12	48
Admitted	1	100	1	33	135
Discharged	2	101	1	34	138
Died .. .. .	..	..	..	..	..
Remaining Dec. 30th, 1922	..	34	..	11	45

Average length of stay, 92 days.

ANALYSIS OF CASES DISCHARGED.

GATEFORTH SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested	1	30	1	12	44
„ improved	1	50	..	13	64
„ not improved .. ..	..	21	..	9	30
TOTALS	2	101	1	34	138

Restoration of working capacity—		Males.	Females.	Total.
100 per cent. approximately	..	32	13	45
80 „ „	..	26	6	32
60 „ „	..	24	9	33
40 „ „	..	10	3	13
20 „ „	..	..	2	2
10 „ „	..	11	2	13
TOTALS .. ..	..	103	35	138

NON-PULMONARY TUBERCULOSIS FOR YEAR ENDED
30TH DECEMBER, 1922.

GATEFORTH SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Remaining Dec. 31st, 1921	1	1
Admitted	4	..	3	7
Discharged	3	..	3	6
Died
Remaining Dec. 30th, 1922	..	1	..	1	2

Average length of stay, 41 days.

ANALYSIS OF CASES DISCHARGED.

GATEFORTH SANATORIUM.	Males.		Females.		Total.
	Under 15	Over 15	Under 15	Over 15	
Disease arrested	2	2
„ improved	2	..	1	3
„ not improved	1	..	..	1
TOTALS	3	..	3	6

Restoration of working capacity—					Males.	Females.	Total.
100 per cent. approximately	..	..	..	..	1	2	3
80 .. .. .	..	..	..	..	..	1	1
60 .. .. .	..	..	..	..	..	..	..
40 .. .. .	..	..	..	..	1	..	1
20 .. .. .	..	..	..	..	1	..	1
10 .. .. .	..	..	..	..	..	..	..
TOTALS .. ..	..	..	..	..	3	3	6

Accommodation for Children.—During the year the Corporation entered into possession of a new estate "The Hollies," in Weetwood Lane, which was gifted to the City by Mr. George W. Brown. In connection with the estate there is a fine Mansion standing in its own grounds, well equipped with electric light and all modern appliances, having a southerly exposure, and within comparatively easy access by tram from the centre of the City. This Mansion was offered to the Health Committee, which was asked if it could find a use for it. After a good deal of consideration it was decided to ask the Ministry of Health to sanction its use as a sanatorium for pre-tuberculosis children. A scheme for that purpose has been formulated and agreed to by the City Council and is now awaiting the approval of the Ministry of Health. If it matures it will be a valuable addition to the general scheme for the treatment of tuberculosis in the City, for it will make it possible to treat early non-infective cases of the disease in children for which at present no provision is made. The house will accommodate from 40 to 50 children quite easily, though it will probably be necessary to fix an age limit of 10 years for boys and 12 for girls. Whilst in residence the education of the children will be undertaken by the Education Committee, which has co-operated with the Health Committee in formulating the scheme.

Cases of surgical tuberculosis have still to be sent to institutions outside the City. During the year 14 children were admitted to the beds reserved for Leeds cases in the Marguerite Home, Thorp Arch, and 9 cases to the Lord Mayor Treloar's Hospital, Alton, Hampshire.

Central Dispensary.—Particulars of the work of the Central Dispensary are given in the table on page 100. The first floor of the Dispensary premises is at present occupied by the staff of the National Insurance Committee. The lease terminates in the Autumn of this year, when it is hoped that the whole of the building will become available for dispensary purposes. At present the accommodation is quite inadequate and the cramping of the space available for the various sections does not make for efficiency, and is certainly detrimental to the health and comfort of the staff. I have already referred to the need for augmentation and reorganisation of the medical staff, vide page 85.

PATIENTS EXAMINED AT CENTRAL TUBERCULOSIS DISPENSARY FROM JANUARY 1ST TO DECEMBER 30TH, 1922.

PULMONARY TUBERCULOSIS.

	New patients.		Number bacteriologically positive.		Number clinically positive, but not T.B.		Number found not to be tuberculous.		Number recommended for Sanatoria.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Insured	308	142	85	30	134	98	89	14	172	96
Non-insured	47	149	1	33	30	84	16	32	16	82

OTHER FORMS OF TUBERCULOSIS.

	New patients.		Glands.		Bones and joints.		Abdominal.		Others and indefinite.		Number recommended for Sanatoria.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Insured ..	70	46	10	6	6	4	2	1	52	35	26	14
Non-Insured	114	108	40	30	18	12	21	12	35	54	19	27

Total attendances of all cases:—Males 28,274
 Females 16,911
 Total 45,185

In addition to the ordinary medical work of the Dispensary, a certain number of patients attend regularly to receive treatment for surgical conditions of a minor degree, the number of such during 1922 was 325, and the total attendances made 2,344. The nature of the service rendered to these was as follows :—

Dressings	..	..	..	..	..	769
Aspirations (glands or abscesses)				..	..	396
Injections of tuberculin and other tests					..	684
Miscellaneous	..	..	..	..	..	495

Pneumothorax.—The number of Pneumothorax injections was 71 of which 39 took place at the Dispensary and 32 in the homes of the patients themselves.

Contacts.—The examination of contacts, perhaps the most important of the work done at the Dispensary, because it supplies information which enables the Medical Officers to estimate the extent to which the families of persons actually suffering from the disease have been affected. It thus provides a very powerful weapon for combating the spread of the disease and enables cases to be brought under treatment in the very early stages before they have actually become sources of infection. Money spent in protecting the contact and saving him from the disease gives a far better return than that expended on trying to patch up a case in which the disease has become established.

The number of new contact cases examined during 1922 was 227, and the total number of examinations 664. The result of these examinations was 87 (or 38 per cent.) were proved to be tuberculous, 90 (or 40 per cent.) were suspicious, and 50 (or 22 per cent.) had no signs. Of the 87 definite cases, 72 were adults over fifteen years of age and 15 children under fifteen years.

Domiciliary Work.—The Medical Officers made 428 visits to the patients' homes either for the purpose of re-examination or in consultation with the general practitioner. The nurses attached to the Dispensary staff made a total of 14,302 visits, of which 2,775 were to ex-service men, 933 for the purpose of inspecting the home conditions, and 10,594 re-visits.

A superintendent nurse was appointed in August to supervise the work of the nurses and co-ordinate the domiciliary and dispensary work. This step should prevent overlapping and waste of effort between the two sections and improve the standard of efficiency.

Care Work.—The Care Committee which is purely voluntary has continued to do most useful work throughout the year. Details of this are given below.

Cases Assisted.—Ninety-seven were sent to seaside and country homes for periods varying from six weeks to six months through the agency of the Children's Convalescent and Summer Holiday Fund. Where possible weekly contributions were made by the parents towards the cost—averaging 15/- weekly.

Two hundred and forty-three persons were supplied with extra nourishment in the shape of milk and food.

Thirty-seven persons received grants of clothing.

Eight were provided with surgical appliances necessary for the continuation of their treatment.

Sick room accessories were provided in 41 instances and artificial teeth in 4.

Nineteen persons received special grants of money, 5 were assisted to employment, homes were found for 4 and domestic help for 6.

The total assisted during the year was therefore 464.

Visits and Interviews.—The Secretary has interviewed and made special visits to 1,470 persons.

Meeting of Committee.—The Committee has met 43 times during the year and has considered and decided 1,226 cases.

I should like to take this opportunity of acknowledging the good services of this Committee and of offering its members my best thanks for their co-operation and help.

MATERNITY AND CHILD WELFARE.

Statistics.—The nett number of children born during 1922 was 9,253 or 891 fewer than in the previous year. Of these, 935 died before the expiry of the first year of life which gives a death-rate of 101 per thousand births, an increase of 3 on the rate for 1921. It would be idle to pretend that this increase, slight though it be, has not been the cause of considerable disappointment, but one must always be prepared for these fluctuations especially when dealing with such a sensitive index as the infantile mortality rate. Just as in 1921 the favourable climatic conditions which prevailed throughout the year played an important part in reducing the rate, so in 1922 the very unfavourable weather which was experienced in Leeds especially during the first two quarters of the year, coupled with measles and whooping cough which were prevalent in epidemic form throughout practically the whole year was responsible for the increased mortality. Proof of this may be got by consulting the tables showing the causes of death (page 108), and the death-rate in quarters (page 107). Whooping cough is one of the deadliest diseases of infancy and measles is not far behind. During the first two quarters respiratory diseases accounted for many more deaths than usual chiefly owing to the prevalence of influenza.

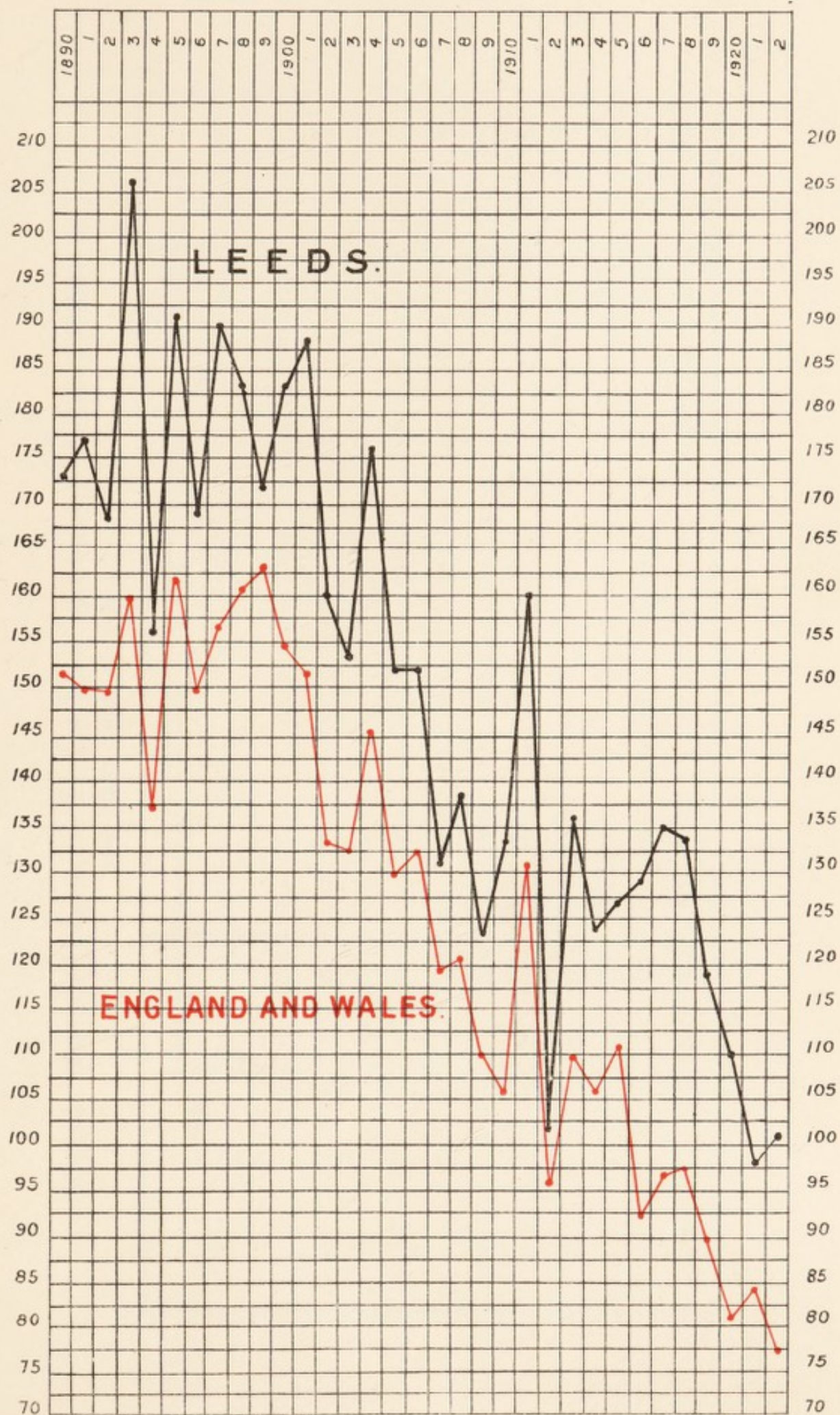
Babies are very susceptible to catarrh particularly if they are kept too warm as is usually the case amongst all classes of the community. If the weather is cold the first thing the average mother does is to put on extra clothing, usually woollen, add another blanket or quilt to the cot, seal up the windows, and place the baby as near the fire as possible. All this promptly results in a cold (the very thing the parent wished to avoid) the first appearances of which are a signal for more clothing, additional blankets, a clothes-horse round the cot to prevent draughts and a bigger fire. The last scene in this tragedy of maternal ignorance comes with the application of a mass of cotton wool soaked in some evil smelling

oil to the child's chest. Life is literally squeezed out of its body and death becomes inevitable. The doctor, who is usually called in during the final scene, certifies the death to be due to pneumonia but it would have been nearer the truth to have certified death as due to suffocation. Such tragedies are enacted in every street in Leeds during the winter, and the wonder is not that so many infants die but that so many survive. No better demonstration of the law of "the survival of the fittest" could be imagined. When will parents learn that the surest way of preventing colds is by allowing the fresh cold air to circulate freely round the baby's cot, to keep its body cool and its chest and limbs unfettered.

I must also make mention of the very large number of deaths, 40.0 per cent. of the whole, which were due to what are known as congenital causes. These causes really belong to the intra-uterine period of the child's life, though death takes place after the child has been born, and are therefore very difficult to control. The only hope of reducing the mortality from these causes which is usually confined to the first month of life is to have the mother under close supervision during pregnancy. The ante-natal clinics exist for this specific purpose but unfortunately expectant mothers do not take advantage of them as they might. Doctors and midwives could help greatly in this if they would by advising mothers who book with them for their confinements to attend the clinics regularly so that they might receive instruction in the hygiene of pregnancy and the management of infancy. Opportunity would also be given for any disease or abnormality to be detected and rectified before the damage became irreparable. Pregnancy is too often taken casually and is not, as it ought to be, the object of careful thought and preparation. Ignorance kills, knowledge saves, and yet the former seems to be preferred. I cannot help thinking that what is lacking is maternal vision—the desire not only to be a mother but to be a good mother. If there was this vision there would be better preparation and a greater zeal for knowledge of those things on which successful motherhood most depends.

Particulars of the infantile mortality rate for the year and for the last ten years, and of the infantile mortality rate in wards are given on pages 105 and 106.

INFANT MORTALITY PER 1000 BIRTHS, 1890 - 1922.



INFANTILE MORTALITY DURING THE ELEVEN YEARS 1912-1922 AT DIFFERENT PERIODS OF
THE FIRST YEAR OF LIFE.

Year.	Births in year.	Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under twelve months.		Under one year.	
		Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
1912	..	263	25.6	424	41.3	187	18.2	162	15.8	137	13.4	138	13.5	1,048	102
1913	..	304	28.0	493	45.4	283	26.1	269	24.8	218	20.1	200	18.4	1,463	135
1914	..	277	26.0	455	42.7	236	22.2	252	23.7	201	18.9	180	16.9	1,324	124
1915	..	258	26.1	413	41.8	194	19.6	242	24.5	205	20.8	199	20.1	1,253	127
1916	..	247	26.2	437	46.3	220	23.3	234	24.8	156	16.5	169	17.9	1,216	129
1917	..	179	23.6	318	42.0	185	24.4	213	28.1	159	21.0	148	19.5	1,023	135
1918	..	189	25.6	316	42.7	154	20.8	199	26.9	175	23.7	140	18.9	984	133
1919	..	230	30.4	373	49.3	147	19.4	156	20.6	125	16.5	98	13.0	899	119
1920	..	304	27.1	520	46.3	260	23.2	191	17.0	146	13.0	115	10.2	1,232	110
1921	..	249	24.5	419	41.3	184	18.1	180	17.7	116	11.4	98	9.7	997	98
1922	..	206	22.2	401	43.3	159	17.2	125	13.5	127	13.7	123	13.3	935	101

INFANTILE MORTALITY IN WARDS AT DIFFERENT PERIODS OF THE FIRST YEAR OF LIFE,
CALENDAR YEAR, 1922.

WARD.	Births in year.	Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under twelve months.		Under one year.	
		Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
Central ..	286	3	10.5	10	35.0	7	24.5	5	17.5	2	7.0	2	7.0	26	91
North ..	702	17	24.2	27	38.5	10	14.2	7	10.0	8	11.4	11	15.7	63	90
North-East ..	768	16	20.8	30	39.1	8	10.4	20	26.0	12	15.6	18	23.4	88	115
*New Ward ..	88	1	11.4	3	34.1	..	..	1	11.4	..	..	1	11.4	5	57
East ..	921	17	18.5	41	44.5	20	21.7	16	17.4	16	17.4	12	13.0	105	114
South ..	392	11	28.1	19	48.5	4	10.2	9	23.0	9	23.0	8	20.4	49	125
†East Hunslet ..	823	17	20.7	32	38.9	19	23.1	12	14.6	12	14.6	15	18.2	90	109
West Hunslet ..	658	17	25.8	32	48.6	6	9.1	5	7.6	6	9.1	5	7.6	54	82
Holbeck ..	692	15	21.7	33	47.7	14	20.2	9	13.0	13	18.8	8	11.6	77	111
Mill Hill ..	81	2	24.5	3	37.0	3	37.0	1	12.3	1	12.3	2	24.7	10	123
West ..	517	11	21.3	23	44.5	10	19.3	7	13.5	12	23.2	8	15.5	60	116
North-West ..	537	11	20.5	21	39.1	12	22.3	4	7.4	6	11.2	6	11.2	49	91
Brunswick ..	422	7	16.6	20	47.4	6	14.2	4	9.5	4	9.5	7	16.6	41	97
New Wortley ..	391	12	30.7	23	58.8	12	30.7	2	5.1	5	12.8	5	12.8	47	120
Armley & Wortley ..	651	14	21.5	27	41.5	13	20.0	10	15.4	12	18.4	6	9.2	68	105
Bramley ..	396	11	27.8	17	42.9	3	7.6	5	12.6	4	10.1	4	10.1	33	83
Headingley ..	928	24	25.9	40	43.1	12	12.9	8	8.6	5	5.4	5	5.4	70	75
CITY ..	9,253	206	22.2	401	43.3	159	17.2	125	13.5	127	13.7	123	13.3	935	101

* Roundhay, Seacroft, Shadwell and Crossgates. † Including Middleton.

Death-rate in Quarters.—The infantile mortality rate for the four quarters of the year is given in the accompanying table, from which it will be seen that the second quarter is abnormally high, whilst the fourth quarter shows little change from previous years since 1919.

	I.	II.	III.	IV.	Year.
1917	121	122	152	151	135
1918	162	101	114	155	133
1919	173	102	123	96	119
1920	139	95	88	112	110
1921	108	78	101	108	98
1922	119	106	77	101	101

Deaths in Age Groups.—Of the total (935) infant deaths 206 (or 22.0 per cent.) took place in the first week of life, 401 (or 42.9 per cent.) in the first month, 159 (or 17.0 per cent.) between one and three months, 125 (or 13.4 per cent.) between three and six months, 127 (or 13.6 per cent.) between six and nine months, and 123 (or 13.1 per cent.) between nine and twelve months.

The percentage changes in the infant death-rate per 1,000 births in 1922, as compared with the average of the previous ten years are as follows:—

Under 1 week, decrease	15.6%	3-6 months, decrease ..	39.7%
Under 1 month ..	1.4%	6-9	21.7%
1-3 months	20.0%	9-12	15.8%
Whole year decrease, 16.5%			

Neo-natal Death-Rate.—The number of deaths of infants occurring in the first month of life (401) was slightly less than for 1921 $\frac{1}{4}$ (419), and the corresponding rate 43.3 was higher by 2.0 than the rate for 1921, which was 41.3. It will be noted that my remarks on page 104 with regard to the high mortality in the first month as compared with the second, third or other periods are borne out.

Causes of Infant Death.—The chief causes of infant death were as follows :—

DEATHS FROM STATED CAUSES UNDER ONE YEAR OF AGE.

Causes of death.	Year 1921.	Year 1922.	Increase or decrease.	Percentage of total deaths under one.
Smallpox .. ..	..	..	..	..
Chickenpox .. ..	..	..	..	..
Measles .. ..	..	35	+35	3.7
Scarlet Fever .. ..	..	..	..	..
Whooping Cough ..	21	47	+26	5.0
Diphtheria and Croup ..	4	6	+ 2	0.6
Influenza	7	7	+—	0.7
Erysipelas	4	..	- 4	..
Tuberculous Diseases ..	20	15	- 5	1.6
Meningitis	9	17	+ 8	1.8
Convulsions	71	61	-10	6.5
Laryngitis	1	..	- 1	..
Bronchitis	81	86	+ 5	9.2
Pneumonia (all forms) ..	99	118	+19	12.6
Diarrhoea and Enteritis ..	157	82	-75	8.8
Gastritis	17	17	+—	1.8
Syphilis	44	26	-18	2.8
Rickets	3	1	- 2	0.1
Suffocation, overlying ..	11	6	- 5	0.6
Injury at birth	26	17	- 9	1.8
Atelectasis	22	22	+—	2.4
Congenital Malformations	37	51	+14	5.5
Premature birth	207	181	-26	19.4
Atrophy, Debility, and Marasmus	108	103	- 5	11.0
Other Causes	48	37	-11	4.0
Totals	997	935	-62	100

Premature birth again heads the list, and though the actual number of deaths attributed to this cause has diminished a little, it is still an easy first. Why this should be so is difficult to say. Many reasons have been suggested and many attempts made to find a remedy, but so far without success. The problem is one which should occupy the attention of the research departments of our Universities and Medical Schools, because until this source

of wastage is stopped efforts made to reduce the rate of infant death will not have the success they ought to have. In this matter parents can help by making use of the ante-natal clinics and teaching their children first how to make a home, second, how to keep it, and thirdly how to prepare themselves for parenthood. Ignorance is at the root of much of the death from prematurity and other congenital causes, and there cannot be any doubt that deliberate interference with the normal course of pregnancy is responsible for more of these deaths than is generally thought.

Diarrhœa and enteritis is a cause of death which is almost entirely preventable. Last year the number of deaths from it remained comparatively low until the late autumn, when we had one or two outbreaks in certain parts of the City. Dirt is the cause of disease, and therefore cleanliness the best means of prevention.

For further particulars of diarrhœa and enteritis see page 66.

I have already dealt with respiratory diseases as a cause of infantile death and pointed out the need of a better appreciation of the value of fresh, cool air, both as a means of prevention and cure.

Illegitimate Death-Rate.—Out of a total of 511 illegitimate births, 85 (or 16·6 per cent.) died before reaching the age of one year, whilst the death-rate per thousand births was 166. These figures are considerably below those recorded in 1921, when the total illegitimate deaths was 120 (or 21·2 per cent.), with a rate per thousand births of 212. These results are most gratifying, and are a tribute to the work of the Health Visitors, Child Welfare Centres, Day Nurseries and Voluntary Agencies engaged in dealing with this class of infant. There is still room for further improvement for the rate of death of the illegitimate baby is still much too high.

In connection with the care of the illegitimate mother and her child, I should like to acknowledge the splendid work of St. Faith's Home, St. Margaret's Home and Spring Grove House (Salvation Army), all of which provide accommodation for the mother during the period of expectancy and for the mother and baby until such time as arrangements can be made for the former to return to work and her baby to be properly minded by a relative or foster mother. The Day Nurseries and the Residential Nursery have also been of great assistance in providing temporary accommodation for these children.

BIRTHS AND DEATHS UNDER ONE YEAR WITH RATES.—CALENDAR YEAR 1922.

WARD.	Total Births (nett).	Birthrate per 1,000 population.	No. of legitimate births.	No. of illegitimate births.	Total deaths under one year (nett).	Death rate per 1,000 births.	No. of legitimate deaths under one year.	Legitimate death rate per 1,000 legitimate births.	No. of illegitimate deaths under one year.	Illegitimate death rate per 1,000 illegitimate births.
Central ..	286	22.48	263	23	26	91	19	72	7	304
North ..	702	16.28	664	38	63	90	55	83	8	211
North-East ..	768	20.90	725	43	88	115	83	114	5	116
*New Ward ..	88	11.11	79	9	5	57	3	38	2	222
East ..	921	25.56	874	47	105	114	97	111	8	170
South ..	392	29.90	368	24	49	125	47	128	2	83
†East Hunslet ..	823	22.85	778	45	90	109	81	104	9	200
West Hunslet ..	658	17.81	639	19	54	82	51	80	3	158
Holbeck ..	692	23.04	648	44	77	111	74	114	3	68
Mill Hill ..	81	15.15	76	5	10	123	8	105	2	400
West ..	517	23.07	466	51	60	116	51	109	9	176
North-West ..	537	16.77	510	27	49	91	45	88	4	148
Brunswick ..	422	17.35	393	29	41	97	36	92	5	172
New Wortley ..	391	21.53	369	22	47	120	46	125	1	45
Armley & Wortley ..	651	17.40	618	33	68	105	58	94	10	303
Bramley ..	396	16.62	385	11	33	83	32	83	1	91
Headingley ..	928	18.35	887	41	70	75	64	72	6	146
CITY ..	9,253	19.83	8,742	511	935	101	850	97	85	166

*Roundhay, Seacroft, Shadwell and Crossgates. †Including Middleton.

SUPERVISION OF MIDWIVES.

Number of Midwives.—The number of midwives on the register on December 31st, 1921, was 78. Forty-one new names were added during the year, 29 names were removed, leaving a total on the register on December 31st, 1922, of 90. Of the total, 51 were attached to institutions and nineteen trained and four untrained took no cases during the year. The actual number who took cases during the year was 83, of whom 66 (or 79·5 per cent.) were trained and 17 (or 20·5 per cent.) untrained. The number of births attended by midwives was 4,410 (or 46·4 per cent.) of the total births registered.

The following table gives an analysis of the cases attended by midwives :—

TRAINED.			UNTRAINED.	
66 midwives.			17 midwives.	
Total cases attended . . 3,314			Total cases attended . . 1,096	
Average per midwife 50 cases.			Average per midwife 64 cases.	
No. of Cases.	Practising on their own account.	Attached to institutions.	No. of Cases.	Practising on their own account.
Over 300	—	1	Over 300	—
„ 200	1	—	„ 200	—
„ 150	1	—	„ 150	—
„ 100	5	3	„ 100	5
„ 75	3	1	„ 75	2
„ 50	3	5	„ 50	2
„ 25	4	5	„ 25	3
„ 10	5	4	„ 10	3
„ 5	4	8	„ 5	1
Under 5	2	11	Under 5	1

Nineteen trained midwives (13 attached to institutions) and four not trained, took no cases during the year.

Inspection of Midwives.—The inspection of midwives' bags, books and appliances was carried out regularly during the year, the total number of such inspections made being 141. In addition to these inspections, the inspector of midwives paid 128 visits. Midwives were interviewed on 34 occasions in connection with breaches of the rules of the Central Midwives Board and other minor misdemeanours.

Advising Medical Help.—Notifications of having advised medical assistance were received in 1,089 cases which may be classified as follows :—

Illness during pregnancy, or abortion	22
Malpresentation	40
Delayed or obstructed labour	184
Ruptured perineum.. .. .	161
Retained membrane or placenta	41
Hæmorrhage	36
Convulsions, eclampsia	4
Puerperal rise of temperature	55
Illness of mother during puerperium	65
Illness of child	186
Infants—discharging eyes	107
Artificial feeding	28
Death of infant under ten days	28
Stillbirths	132

Midwives' Emergencies.—During the year 237 claims were made by medical practitioners in the City for attendance on emergencies of labour under Section 14 of the Midwives Act, 1918. Of these 15 were paid direct by the parent whilst the remainder, 222, were settled by the Local Authority at a total cost of £211 os. 5d.

Puerperal Fever Cases.—Cases of puerperal fever and high temperature were investigated and where the case was infectious disinfection of the midwife's person, clothing and maternity bag was carried out under the personal supervision of the chief woman inspector. The total number of visits paid for this purpose was 83 and the total number of midwives disinfected 40.

Handywomen.—In addition to visits paid to midwives 10 visits were paid to handywomen and six of these were disinfected.

Still-births.—The total number of still-births notified was 418 (or 4·4 per cent.) of the total births notified, which is a decrease of 48 on the figure for last year which was 466 (or 4·7 per cent.)

The following table shows the comparison between live-births and still-births for the last nine years :—

BIRTHS NOTIFIED (LIVE AND STILL).

Year.	Live births notified.	Still-births notified.	Total births notified live and still.	Percentage of still-births to total births.
1914	9,738	105	9,843	1.1
1915	8,153	350	8,503	4.1
1916	7,836	394	8,230	4.8
1917	7,017	328	7,345	4.5
1918	6,892	287	7,179	4.0
1919	7,684	340	8,024	4.2
1920	10,749	461	11,210	4.1
1921	9,928 9462	466	10,394 9928	4.7
1922	9,976 8656	418	10,394 9076	4.6

Notification of Births Act came into force 1st January, 1914.

Of the 418 still-births notified, 135 (or 32.3 per cent.) were by midwives, and the remainder, 283 (or 67.7 per cent.) by medical practitioners.

Ante-Natal Work.—The total number of expectant mothers attending the 12 ante-natal centres during the year was 1,089. Of these, 816 were new and attended for the first time. The total attendances at all the centres was 5,785, a decrease of 1,544 compared with 7,329 for 1921.

It is a matter for regret that the ante-natal clinics are not taken advantage of as they might be. They were established with the object of reducing the number of ante-natal and neo-natal deaths as well as controlling the damage (often permanent) resulting from maternal disease and deformity. Very commendable progress has been made in reducing the death-rate of infants over one month but under one month the wastage remains much the same as it was ten years ago (see table 105). There is only one remedy and that is by the early detection of the conditions in the mother,

which endanger the life and health of the child, so that the appropriate remedies may be applied. But it is impossible to detect trouble unless an opportunity is given of looking for it. Hence the importance of all mothers paying regular visits to an ante-natal clinic, or to the doctors engaged to conduct the confinement, right from the beginning of pregnancy to the onset of labour. It would be of enormous value if doctors and midwives would bear this in mind and insist upon the observance of this rule by their clients.

I hope that the attendance at the clinics will improve throughout the present year.

Particulars of the work of the ante-natal clinics are set out in the following table :—

EXPECTANT MOTHERS ON REGISTER.

Welcome.	No. on register at beginning of year.	Registered during year.	Live births.	On register end of year.	Total attendance of expectant mothers.
Ellerby Road ..	29	91	77	19	491
West Street ..	20	69	60	19	315
Burmantofts ..	31	66	62	21	832
Hunslet	23	71	64	26	510
University ..	15	70	57	15	557
Woodhouse ..	12	39	41	7	123
Holbeck	37	110	106	19	482
Armley	30	82	73	27	782
Chapelton ..	10	77	59	15	206
St. Nicholas ..	20	58	49	21	247
Bramley	15	27	26	9	600
New Wortley ..	31	56	58	19	640
Totals ..	273	816	732	217	5,785

Of the 1,089 mothers on the register 14 miscarried. Of the 732 live births 9 were premature.

Natal Work.—Of the total births registered in the City, 1,819 (or 19·1 per cent.) took place in institutions or nursing homes as compared with 1,805 (or 17·3 per cent.) in 1921, an increase of 14.

The public continues to look upon the hospital or home for lying-in with increasing favour. This is not to be wondered at when one considers the utter lack of even the simplest conveniences in many of the houses of our City, to say nothing of the difficulty of getting domestic assistance and providing for the wants of the other members of the family whilst the mother is laid aside. The present shortage of houses, overcrowding and financial stringency, all tend to accentuate the need for further lying-in accommodation. It was with the object of meeting this need that the Maternity and Child Welfare Committee sought means of increasing the number of beds in the city available for maternity cases. Towards the end of the year a scheme was adopted, which has since received the approval of the Ministry of Health, whereby a certain number of beds at the three Poor Law Infirmaries will be reserved for cases recommended by the Public Health Department, namely, three at Leeds, three at Rothwell and two at Bramley. Allowing a fortnight for each case this will provide accommodation for 208 cases during the year. The arrangement made with the Guardians of these Unions provides that cases recommended by the Medical Officers of the Health Department shall be admitted without having to pass through the hands of the relieving officer which removes the main stumbling block to the use of these institutions for ordinary cases. Patients will be taken to and removed from the Infirmaries in a special ambulance provided by the Committee and all the expenses of removal and maintenance will be borne by the city, though in each case the patient will be expected to make a contribution, varying in amount according to her means. All Infirmaries have commodious, well equipped maternity wards with only very few of the beds in use, and it is tragic to think that whilst there is all this available accommodation women and children die for want of the ordinary comforts and care necessary at such times.

An analysis of the births registered as occurring in the various lying-in institutions in the City is given in the following table :—

Institution.	No. of births.	Percentage of total registered.
Leeds Maternity Hospital	1,414	14·88
St. Faith's Home	77	0·81
Leeds Township Infirmary	91	0·96
Holbeck Township Infirmary	6	0·06
Bramley Township Infirmary	6	0·06
Hospital, H.M. Prison	1	0·01
Hope Hospital	12	0·13
Leeds General Infirmary	11	0·12
Women and Children's Hospital.. ..	7	0·07
City Hospital, Seacroft	1	0·01
Private Nursing Homes	193	2·03

Illegitimate Births in Institutions.—Of the 1,819 births which took place in institutions 355 (or 19·5 per cent.) were illegitimate. This is a decrease of 53 on the figure for last year.

Post-natal Work.—The number of births notified during the year (exclusive of still-births) was ⁸⁶⁵⁹~~9,070~~ (or ^{91·1}~~95·5~~ per cent.) of the total births registered.

Home Visiting.—First visits were paid by the health visitors to 8,962 infants. The number of re-visits was 38,008 which together with first visits makes a total of 46,970 visits for the year.

A complete summary of the work of the health visiting staff is appended :—

	VISITS.
Notified births including revisits	46,970
Ophthalmia neonatorum	165
Measles	19,184
Whooping cough	1,650
Pneumonia	558
Medical aid	279
Other cases	3,858
Expectant mothers	364
Ill children notified from the Leeds General Infirmary and Public Dispensary	2,523

Infant Welfare Centres.—The centres continue to retain their popularity and throughout the year did splendid work. The number of new babies admitted was 4,309 as compared with 4,742 for the previous year, a decrease of 433. I have already drawn attention to the high death-rate of babies in the first month of life, which has shown very little decrease during the last decade. One appreciates the difficulty of dealing with or controlling these deaths, because of the fact that so many of them are brought about as a result of conditions largely congenital in origin and amenable to treatment only during the ante-natal period. Nevertheless it must be recognised that a certain number have a post-natal origin and might, if the causal conditions were treated early enough, be prevented. In other words, the greater the number of children coming to the welcomes in the first month of life, the more successful are we likely to be in bringing down the neo-natal death-rate.

Of the total number of infants registered at the welcomes during the year, 1,294 (or 30 per cent.) were under one month, and 3,267 (or 76 per cent.) under three months. These are very satisfactory figures, but there is still room for improvement. If mothers would only realise the importance of "the stitch in time," many infant lives might be saved, and not only would this added zeal on the part of the mother lead to a reduction in the actual wastage of life, but it would also minimise to a great extent the risk of damage. It is difficult to restore to normal a life damaged in infancy. The majority of such grow up to manhood or womanhood crippled or deformed in some respect or other. The object of Maternity and Child Welfare work is not only to prevent the premature death of infants, it is also to render them more secure from the risks of permanent damage as a result of bad treatment or unhealthy influences. The cost to the state of maintaining and providing for deformed and crippled children is very considerable, and much of this expenditure of public money might be avoided if greater care and attention were given by parents and others to the infant during the early months of its life.

The proportion of the total children born during the year which attended the centres was 46 per cent. This figure is too low; it ought to be not less than 60 per cent. To attain this,

however, it will be necessary (1) to increase the number of centres, and (2) to appoint more health visitors. Twelve centres for a City with a population of the size of Leeds is not sufficient, and the inadequate provision is responsible for a good deal of congestion at all the centres. Recently the Committee has decided to open two additional centres at Meanwood and Middleton, in the vicinity of the new housing estates. This will do something to relieve the congestion at the Woodhouse and Hunslet centres, and will be much more easy of access to mothers and children in these neighbourhoods.

Additional centres are required in the Dewsbury Road and Harehills districts, both populous districts not at present adequately served by any existing centre, and I am hopeful that arrangements for these may be made in the current year.

As regards health visitors, the staff at present consists of 20, which no one would pretend is sufficient to supply the need of a City with over 9,000 births per year. It is quite impossible with this staff to keep all children under five years of age under supervision, and there is always a mass of arrears which no amount of planning and hard work can overtake. Two more health visitors at least are required, and I am hoping it may be possible to augment the staff to this extent at an early date.

Infant Consultations.—The average number of infant consultations at each centre is three per week, and in addition clinics are held at all the centres every morning for the treatment of minor ailments, so that the centres are kept well occupied practically during the whole of the day. Any spare time which the clinic nurses may have is devoted to the visitation of special cases which for one reason or another are unable to attend at the ordinary consultation hours.

Details of the work of the various centres will be found in the tables on pages 119 and 120.

ATTENDANCES MADE AT INFANT WELFARE CENTRES DURING YEAR 1922.

WELCOME.	Consultations and meetings.				Morning treatment.				
	Expectant mothers.	Mothers.	Babies under 1 year.	Babies 1—5 years.	Expectant mothers.	Mothers.	Babies under 1 year.	Babies 1—5 years.	Callers.
Ellerby Road..	470	3,653	3,272	1,652	21	226	1,007	244	423
West Street ..	311	1,838	5,414	2,130	4	170	1,022	408	455
Burmantofts ..	623	3,121	3,788	3,003	209	504	1,363	724	351
Hunslet ..	427	3,072	5,475	3,491	83	402	919	753	578
University ..	449	1,744	3,258	1,780	108	315	2,390	1,101	353
Woodhouse ..	109	1,288	3,377	1,511	14	56	470	277	300
Holbeck ..	459	4,940	6,755	3,797	23	84	1,640	1,613	460
Armley ..	555	2,974	3,123	3,119	227	800	1,807	3,048	995
Chapelton ..	206	1,520	2,899	1,522	—	41	513	373	592
St. Nicholas ..	224	2,713	3,280	1,525	23	285	1,106	1,116	2,310
Bramley ..	322	1,366	1,772	1,885	278	780	1,645	751	227
New Wortley ..	308	2,588	2,977	1,694	332	459	1,708	1,528	647
Totals ..	4,463	30,817	45,390	27,109	1,322	4,122	15,590	11,936	7,691

BABIES UNDER ONE REGISTERED DURING YEAR 1922.

WELCOME.	0-1 month.	1-3 months.	3-6 months.	6-12 months.	Total.
Ellerby Road	81	156	40	26	303
West Street ..	162	305	84	61	612
Burmantofts ..	87	184	63	47	381
Hunslet ..	141	185	54	46	426
University ..	94	120	27	24	265
Woodhouse ..	78	156	30	64	328
Holbeck ..	258	237	74	55	624
Armley ..	60	173	54	37	324
Chapelton ..	88	157	54	46	345
St. Nicholas ..	115	132	26	25	298
Bramley ..	26	76	21	17	140
New Wortley ..	104	92	24	43	263
Totals ..	1,294	1,973	551	491	4,309

BABIES OVER ONE REGISTERED DURING YEAR 1922.

WELCOME.	1-2 years.	2-3 years.	3-4 years.	4-5 years.	Total.
Ellerby Road	20	22	5	1	48
West Street ..	56	32	15	4	107
Burmantofts ..	30	24	8	3	65
Hunslet ..	62	41	15	7	125
University ..	38	33	11	2	84
Woodhouse ..	31	22	5	2	60
Holbeck ..	86	56	9	6	157
Armley ..	60	45	18	15	138
Chapelton ..	46	21	11	6	84
St. Nicholas ..	35	20	9	7	71
Bramley ..	22	8	7	—	37
New Wortley..	24	13	14	8	59
Totals ..	510	337	127	61	1,035

HOME VISITS PAID BY CLINIC NURSES DURING YEAR 1922.

WELCOME.	Babies under 1 year.	Babies 1-5 years.	Odd Visits.	Total Visits.	Expect- ant Mothers.	Total Visits to both.
Ellerby Road ..	131	103	1	235	53	288
West Street ..	406	420	25	851	117	968
Burmantofts ..	296	769	39	1,104	356	1,460
Hunslet ..	4	237	1	242	3	245
University ..	185	275	12	472	77	549
Woodhouse ..	806	652	210	1,668	104	1,772
Holbeck ..	5	552	5	562	2	564
Armley ..	44	358	2	404	7	411
Chapelton ..	87	166	19	272	68	340
St. Nicholas ..	1	27	1	29	2	31
Bramley ..	720	477	103	1,300	203	1,503
New Wortley ..	81	347	18	446	94	540
Totals ..	2,766	4,383	436	7,585	1,086	8,671

Leeds Babies' Welcome Association.—I must again express my appreciation of the excellent work done by the Leeds Babies' Welcome Association in connection with the infant welfare scheme. A great deal of the success which has attended the efforts put forth by the Maternity and Child Welfare Committee on behalf of the mothers and babies of the City is due to the loyal and willing co-operation of the members of the Association. Every call which is made upon them is eagerly responded to, and no words can express the debt which the City owes for their services.

Milk Distribution.—As in previous years milk has been supplied to necessitous mothers and babies attending the centres. The industrial stagnation and the distress resulting therefrom has made it necessary to give with a freer hand than would have been the case had trade been good. At the beginning of the year, the Committee decided to discontinue, except to special cases recommended by the Medical Officers, the distribution of liquid milk and to supply dried milk only. This has resulted in a considerable saving in the cost of administration and has also reduced wastage in the home. The dried milk supplied is of the very best quality, is regularly examined both chemically and bacteriologically, and is bought at a very moderate price. It has become very popular with the mothers, not because it is preferred to liquid milk, but because of its food value and its freedom from noxious germs. Farmers and agriculturists generally grumble because the amount of liquid milk consumed has decreased so much in recent years, but they have the remedy in their own hands. Let them produce clean wholesome germ-free milk and we will then have no hesitation in recommending it for use in infant feeding. As things are, it would be folly to advise a mother to feed her baby on milk poor in quality and contaminated with dangerous disease germs.

In this connection I should like to thank the members of the Milk Committee for the time and energy which they have put into the work in connection with the milk distribution scheme during the year. Some idea of what that work entailed will be gathered from the following :—the Committee met on 48 occasions and considered no fewer than 9,085 applications ; whilst in addition they supervised generally the work of the milk staff, details of which appear in table on page 122. The careful and painstaking way in which the Committee has done its work has undoubtedly effected a very considerable saving in the cost of the milk scheme.

WORK OF MILK STAFF.

	I. Quarter.	II. Quarter.	III. Quarter.	IV. Quarter.	Year.
Applications dealt with (new)	439	529	393	383	1,744
" " (repeat)	2,476	3,116	3,094	2,938	11,624
" " (refused)	24	10	..	..	34
No. of re-applications ..	144	126	130	81	481
*No. of external cases dealt with at the office ..	463	472	353	289	1,577
	3,546	4,253	3,970	3,691	15,460
No. of visits to Welcomes paid by the milk secre- taries	131	134	133	137	535

* Persons under treatment at the Public Dispensary and the General Infirmary.

AMOUNT OF DRIED MILK DISTRIBUTED IN LBS. (YEAR 1922*).

WELCOME.	Free.	Assisted.	Full Price.	TOTAL.
Ellerby Road	5,567	1,611	180	7,358
West Street	3,294	955	427	4,676
Burmantofts	3,336	1,763	467	5,566
Hunslet	4,423	3,260	611	8,294
University	2,744	1,026	244	4,014
Woodhouse	1,308	991	460	2,759
Holbeck	5,655	2,870	666	9,191
Armley	2,783	1,710	297	4,790
Chapelton	2,394	1,378	194	3,966
St. Nicholas	3,546	2,176	216	5,938
Bramley	863	561	256	1,680
New Wortley	2,804	1,217	225	4,246
External	2,044	723	6	2,773
Total	40,761	20,241	4,249	65,251

* Jan. 1st to Dec. 31st.

NUMBER OF RECIPIENTS (YEAR 1922*).

WELCOME.			Free.	Assisted.	Full Price.	TOTAL.
Ellerby Road	..	..	350	77	33	460
West Street	..	..	225	64	57	346
Burmantofts	..	..	214	86	84	384
Hunslet	..	..	273	156	78	507
University	..	..	176	62	28	266
Woodhouse	..	..	93	56	75	224
Holbeck	..	..	305	172	53	530
Armley	..	..	140	76	46	262
Chapelton	..	..	149	61	41	251
St. Nicholas	..	..	224	115	20	359
Bramley	..	..	55	42	47	144
New Wortley	..	..	135	74	31	240
External	..	..	288	62	3	353
Total	..	..	2,627	1,103	596	4,326

* Jan. 1st to Dec. 31st.

COWS' MILK DISTRIBUTED—NUMBER OF RECIPIENTS.*

WELCOME.			Pints (Free).	Recipients (Free).
Ellerby Road	..	..	22	1
West Street	..	..	399	4
Burmantofts	..	..	7	1
Hunslet	..	..	234	4
University	..	..	291	6
Woodhouse	..	..	.	..
Holbeck	..	..	266	5
Armley	..	..	638½	22
Chapelton	..	..	438	10
St. Nicholas	..	..	..	..
Bramley	..	..	..	..
New Wortley	..	..	696	15
External	..	..	1,197½	34
Total	..	..	4,189	102

* Sept. 1st to Dec. 31st, 1922.

COST OF MILK DISTRIBUTION SCHEME FOR YEAR ENDED
31st DECEMBER, 1922.

INCOME.				EXPENDITURE.			
	£	s.	d.		£	s.	d.
To cash received for sale of milk ..	1,630	11	1	By salaries and wages	517	6	0
				„ Cost of dried milk	6,160	0	2
				„ Cost of cows' milk	48	13	0
				„ Printing, stationery, etc. ..	50	9	1
„ balance—loss	5,153	10	7	„ Insurance and Sundries ..	7	13	5
	£6,784	1	8		£6,784	1	8

Nett cost per head to Corporation, £1 3s. 3d.

THE INFANTS' HOSPITAL, WYTHER.

The year's record was spoiled by an outbreak of whooping cough in the early months which necessitated the hospital being closed for six weeks. Again in August measles visited the hospital and necessitated a partial closure. As a result of these outbreaks the number of admissions is not so high as in other years.

Details of the work of the hospital are given in the appended tables.

SUMMARY OF CASES TREATED IN THE INFANTS' HOSPITAL, WYTHER, DURING THE PERIOD JANUARY 1st—DECEMBER 31st, 1922.

	Males.	Females.	Total.
Remaining in Hospital, January 1st, 1922	14	15	29
Admitted during the year ..	105	78	183
Discharged during the year ..	87	63	150
Died during the year	16	8	24
Remaining in Hospital, December 31st, 1922	16	22	38

Mortality rate per cent. of admissions 13·1. Average stay in Hospital 60·4 days.

CLASSIFICATION OF ADMISSIONS ACCORDING TO AGE AND SEX.

Males.		Females.		Total Infants		Grand Total.
Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	Under 1 year.	Over 1 year.	
33	73	25	52	58	125	183

ANALYSIS OF DEATHS.

Cause of death.	Under 1 year.		Over 1 year.		Total.
	Males.	Females	Males.	Females	
Whooping cough	1	..	..	..	1
Intestinal toxæmia .. ..	..	..	1	..	1
Marasmus	3	3	..	..	6
Broncho-pneumonia and bronchiectasis	3	1	1	1	6
Laryngismus stridulus ..	..	..	1	..	1
Convulsions	1	1	..	..	2
Abdominal tuberculosis ..	..	..	1	..	1
Acute miliary tuberculosis	..	..	..	1	1
General tuberculosis .. ..	..	..	1	..	1
Tuberculous disease of spine	1	..	..	..	1
Cleft palate	1	..	..	..	1
Gastro enteritis	1	1	..	..	2
TOTALS	11	6	5	2	24

ANALYSIS OF CASES TREATED DURING 1922.

Reason for admission.	Under one year.	Over one year.	Total.
Lobar pneumonia	2	2	2
Broncho pneumonia and bronchiectasis ..	8	6	14
Unresolved pneumonia	1	13	14
Empyema	1	1	1
Acute bronchitis	2	3	5
Suspected pulmonary tuberculosis	6	6	6
Abdominal tuberculosis	3	3	3
General tuberculosis	1	2	3
Acute miliary tuberculosis	1	1	1
Tuberculous bronchial glands	2	2	2
Tuberculous osteitis	1	4	5
Multiple tuberculous abscesses	1	1	1
Tuberculous glands	1	1	1
Rickets	37	37	37
Marasmus	31	4	35
Improper feeding	6	6	6
Spasm of pylorus	1	1	1
Cœliac disease	2	2	2
Acute gastro enteritis	4	4	8
Acute colitis	1	1	1
Malnutrition after diarrhœa and vomiting measles, whooping cough, etc.	7	42	49
Influenza	1	1	2
Acute toxæmia (intestinal)	1	1	1
Tetany	2	2	2
Pyrexia uncertain origin	1	1	1
Erysipelas	1	1	1
Phlyctenular conjunctivitis	1	1	1
Cleft palate	1	1	1
Adenoids	1	1	1
Cerebellar ataxia	1	1	1
Otitis media, convulsions	1	1	1
Empyema (sinus)	1	1	1
Cardiac irregularity	1	1	1
Nil	1	1	1
TOTALS	68	144	212

Day Nurseries.—During the year three day nurseries, namely, Sun Dial House, Hunslet, Holbeck, and Burley were closed at the instigation of the Ministry of Health and because their attendances had dropped to such a low figure as to make it uneconomical from every point of view to carry them on. These three nurseries

undoubtedly did splendid work during the war when the demand for women's labour was at the maximum, but when the trade prosperity which followed the war gave way to depression and unemployment became rife, the demand by mothers for accommodation for their infants rapidly diminished. Only one nursery, Cobden Place, remains. The beds in that nursery are kept fairly well occupied and it would appear from the attendance figures that the institution is serving a very useful purpose. It is just a question, however, whether money expended in benefitting such a restricted number of the community is spent to the best advantage, or whether it would not give a better return if diverted into other channels. The day nursery movement is essentially an educational one and has a very limited association with health. If properly organised it might be made to subserve a very useful purpose in training young children during the pre-school age as well as providing material for training of girls in the older classes at the elementary schools in mother-craft.

Residential Nursery.—The nursery was well filled during the year, and there was nearly always a short waiting list.

Twenty-one children were in residence on January 1st, 1922, 51 were admitted, and the average length of stay was 140 days. The reasons for admittance were as follows:—29 owing to the mother's illness, 4 owing to the death of mother, 1 deserted, 2 death of father and 15 by reason of the mother having to be at work or in domestic service in the city.

On November 1st, a child who had been in the nursery a week developed measles, another case occurred twenty days later, and though removed without delay the other children all became infected. In consequence of this outbreak the nursery was closed during the last two months of the year.

Thanks are due to the ladies who devote so much time and thought to the work of this and the day nurseries.

A table on page 128 gives details of the attendances during the year.

TOTAL ATTENDANCES OF RESIDENT AND DAY CHILDREN AT THE NURSERIES, IN AGE GROUPS,
FOR THE YEAR ENDED 31ST DECEMBER, 1922.

NURSERY.	RESIDENT.				DAY.							
	WHOLE ATTENDANCES IN DAYS.				WHOLE ATTENDANCES.				HALF ATTENDANCES.			
	Under 3	3-5	Over 5	Total.	Under 3	3-5	Over 5	Total.	Under 3	3-5	Over 5	Total.
Cobden Place	..	..	..	..	6,945	543	134	7,622	845	42	...	887
*Sun Dial House	..	..	..	..	3,345	213	..	3,558	345	36	..	381
†Holbeck	..	..	..	..	20	..	..	20	2	..	..	2
†Burley	..	..	..	..	40	..	..	40	4	..	17	21
Red House	9,581	..	..	9,581	..	..	..	..	..	..	..	..
Totals	9,581	..	..	9,581	10,350	756	134	11,240	1,196	78	17	1,291

* Closed December 30th, 1922.

† Closed January 28th, 1922.

Convalescent Treatment for Mothers and Babies.—No part of Maternity and Child Welfare Work is more urgent than the provision of some rest and change for the tired mother of the family, and nothing is more difficult to obtain, since convalescing a mother means persuading her to consent to temporary arrangements being made for the rest of the family.

Eighty-two mothers with their babies, and eighteen mothers without, were sent to convalescent homes and stayed on an average of 15 days each. The arrangements were made by the Leeds Children's Convalescent and Summer Holiday Fund, who merit the heartiest thanks for their good services. All the mothers received great benefit, and in a few a serious nervous breakdown was prevented. Those benefitting from the scheme are expected to contribute as much as possible. In 1922, 26 paid up to quarter cost, 15 up to half cost, 7 up to three-quarter cost, 1 full cost, and 51 were sent free.

In addition, 77 children between the ages of three and five years were sent to Meanwood Convalescent Home for periods of three to six weeks. The average stay was 28 days. The work was much interrupted by the measles epidemic.

The cost to the Corporation of the scheme was £370 16s. 7d., or an average of £1 14s. per case per week. This amount does not include the 77 children sent to the Meanwood Convalescent Home, the cost of whose treatment was £322 4s. 1d., or an average of £1 1s. 8d. per case per week. The total sum therefore spent in providing convalescence of all cases was £693 os. 8d.

PROPAGANDA.

Throughout the year the subject of health in all its bearings was prominently kept before the notice of the public by means of special lectures, health talks, press notices, and pamphlets.

National Health and Baby Week were celebrated in July, in connection with which a special public meeting was held in the Philosophical Hall, presided over by Sir Michael Sadler, Vice-Chancellor of the University. Papers were read by Major A. C. Farquharson, M.D., M.P., on "The Child as the Raw Material of the State," and by Dr. W. H. Maxwell Telling on "Modern Psychology Modern Parenthood." The meeting was exceedingly well attended, and the addresses were listened to with very great interest. During the week an essay competition on "How and Why I should Keep Healthy" was organised in the Elementary schools, prizes for which were very generously provided by Mrs. Charles Radcliffe. A series of special articles on health subjects appeared in the "Yorkshire Post," and short paragraphs descriptive of the work of the Health Department, in the other local news-sheets.

In October, Professor Leonard Hill addressed a public meeting in the Town Hall on "The Relation of Clean Air to Health," illustrated by lantern slides. This meeting was not as well attended as it might have been, considering the importance of the subject and the reputation of Professor Hill as one of the greatest exponents of the subject in the country.

A special Rat Week was held in November, in connection with which an exhibition of poisons and appliances for destroying rats and mice was organised at the Health Offices, and by means of posters, lantern slides, and special rat hunts, an attempt was made to enlist the interest of the people in ridding the City of the rat pest.

In addition to the above, 23 lectures and addresses were given by members of the staff in various parts of the City, generally in connection with Adult Schools, Brotherhoods, and trade organisations.

I must again take the opportunity of thanking the press for its willing co-operation and help in promoting knowledge with regard to the preservation of health and the combating of disease.

STAFF CHANGES.

Harry Mainwaring Holt, M.B., Ch.B. (Leeds), was appointed Medical Assistant for Maternity and Child Welfare on May 8th, vice Elizabeth P. Y. Paterson, M.B., Ch.B., resigned.

Miss Curtis, the Superintendent Clinic Nurse, resigned her post in February, owing to ill-health, after a long period of devoted and valuable service in the Maternity and Child Welfare Department.

Miss Annie Curtis, the Senior Milk Secretary, resigned in February, and Miss M. Rimmington was selected to fill the vacancy.

Mrs. Rodgers, Superintendent Matron of the Day Nurseries, resigned in March owing to the closure of certain of the Day Nurseries.

Mr. James V. Gray, in April, was appointed Smoke Inspector vice Mr. George Ambler, who retired after thirty-one years' service.

Mrs. J. C. Doran, in June, resigned her position as Matron of the Seacroft Infectious Diseases Hospital after a long and devoted service over a period of thirty-six years.

Mr. William R. Swainstone was appointed Inspector of Canal Boats, Common Lodging-houses, etc., in July.

Professor J. W. McLeod was appointed City Bacteriologist in July, vice Professor M. J. Stewart, resigned.

Miss M. S. Brandreth was appointed Superintendent Nurse at the Tuberculosis Dispensary in August.

HOUSING.

Number of houses.—The total number of houses (structurally separate sets of premises) at census in June, 1921 was 111,802, of which 736 were unoccupied, new houses since built, 2,486, making a total of 114,288, which comprises approximately 35,882 through houses and 78,406 back-to-back houses.

Housing shortage.—The number of applicants for houses on December 31st, 1922, was 7,267.

Overcrowding.—It is impossible to say exactly how many houses in the city are overcrowded. This information will be available as soon as the results of the census of 1921 for this area are published, meanwhile one can only guess at the figure. There is undoubtedly a good deal of overcrowding in certain parts of the city which the Housing Schemes as far as they have been developed, have done little or nothing to reduce. The reason for this is that the new houses are being occupied mainly by newly married couples and not by married people with families. Until the demand for houses by the former is supplied, overcrowding which largely exists in the working-class areas of the city will continue, and as it is largely hypothetical whether the demand ever will be completely satisfied it looks as though it will be a considerable time yet before overcrowding entirely disappears. This is a matter of some moment to the community inasmuch as overcrowding is one of the great causes of disease, physical debility, and mental and moral degeneracy. Wherever over-crowding is marked there is an increased incidence of infectious disease, the general standard of life is low, and there is undue wastage of life, particularly of infant life. It is therefore to the advantage of the public health that overcrowding should be reduced to a minimum.

New Houses.—The total number of new houses completed and occupied during the year was 1,971, of which 1,800 were suitable for persons of the working classes and 171 were of the larger type.

TABLE SHEWING THE TOTAL AMOUNT OF HOUSING WORK
DONE TO 31st MARCH, 1923.

NAME OF ESTATE.	Sewers laid. Length in yds.	Roads formed, pitched and ashed. Length in yds.	No. of Houses for which Contracts have been signed.	No. of Houses upon which work has been com- menced.	No. of Houses completed included in previous column.
Hawksworth Wood ..	4,436	5,109	402	402	402
Wyther House	3,857	4,048	492	492	492
Meanwood	4,394	5,868	800	800	710
Crossgates	4,312	5,885	388	388	289
Middleton	3,993	5,113	597	597	535
Ivy House	Existing	Existing	46	46	46
Section 12/3 Houses ..	Do.	Do.	398	398	398
Demonstration Houses, Meanwood	—	—	6	6	6
Totals	20,992	26,023	3,129	3,129	2,878

Bad housing is at the bottom of many of our social and health problems. The house is the most important environment of the individual and if it is deficient as regards lighting, ventilation, washing accommodation, food storage, and the means for disposal of refuse including excreta, then the effects on health are proportionately serious. Infectious diseases, tuberculosis, infantile diseases,

respiratory diseases, and venereal diseases are all very closely bound up with housing conditions, and the statement "no housing problem no health problem" would probably come very near the truth. No better example of this can be cited than tuberculosis which is commonly the result of bad environment. If half the money spent in the country to-day in treating tuberculosis could be devoted to slum clearance and the building of better houses, the result, as far as the incidence of the disease is concerned, would, I am convinced, be very much more satisfactory. As things are we are living in a vicious circle, on the one hand making disease and on the other trying to cure it.

Unfit houses.—The number of houses inspected and found to be unfit for human habitation remains practically the same as it was the previous year. A certain number, 250, have been repaired and rendered fit for occupation during the year, whilst 24,986 houses which were defective in some respect or another were made sanitary. Further details of housing work are set out in the special table on page 136.

Unhealthy Areas.—There are several unhealthy areas in the city which urgently require treatment. Up to the present it has been impossible owing to the housing shortage to deal with these, and until the supply of new houses more nearly approximates to the demand, no progress can be made.

The Government has set aside a certain sum of money to be devoted to the clearance of slums, but it is so small that when divided up amongst the various Local Authorities in England, the amount which each will receive will practically be insignificant. The portion due to Leeds is £2,500 a year for a period of twenty years sufficient only to deal with a very small area. I am hoping, however, that advantage will be taken of the Government's offer and that it may be possible, perhaps with some help from the City funds, to make a start on one of the worst areas.

A comparative statement showing the number of new houses built during the last twenty-one years appears below, and a table showing the total amount of work done up to the 31st March, 1923, in connection with the new Housing Schemes appears on page 133.

TABLE SHEWING THE NUMBER OF HOUSES ERECTED IN LEEDS DURING THE LAST TWENTY-ONE YEARS, ENDED 31ST MARCH, 1923.

Year.					Number of Houses.
1903	..	..	..	..	2,572
1904	..	..	..	..	2,923
1905	..	..	..	..	2,442
1906	..	..	..	..	1,748
1907	..	..	..	..	1,135
1908	..	..	..	..	919
1909	..	..	..	..	836
1910	..	..	..	..	584
1911	..	..	..	..	505
1912	..	..	..	..	350
1913	..	..	..	..	220
1914	..	..	..	..	287
1915	..	..	..	..	228
1916	..	..	..	..	146
1917	..	..	..	..	51
1918	..	..	..	..	5
1919	..	..	..	..	4
1920	..	..	..	..	7
1921	..	..	..	..	196
1922	..	..	..	..	1,048
1923	..	..	..	..	1,916
TOTAL					18,122

HOUSING, TOWN PLANNING, &c. ACTS, 1909, 1919, 1920, and THE HOUSING OF THE WORKING CLASSES ACT, 1890, Parts I. & II.

Table showing the number of houses examined by the Medical Officer of Health as part of the general survey of the town during the year ending December 31st, 1922, and the numbers represented or otherwise dealt with, pursuant to the Housing Acts, with the corresponding figures for 1920 and 1921.

	1920.	1921.	1922.
Number of new houses erected during the year :—			
(a) Total	100	742	1,971
(b) As part of a municipal housing scheme ..	66	713	1,804
1. <i>Unfit dwelling-houses.</i>			
Inspection—(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	7,423	17,758	13,474
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	651	591	562
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	409	322	296
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation ..	241	269	266
2. <i>Remedy of Defects without Service of formal Notices.</i>			
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	201	227	250
3. <i>Action under Statutory Powers.</i>			
A.—Proceedings under section 28 of the Housing, Town Planning, &c. Act, 1919 ..			
(1) Number of dwelling-houses in respect of which notices were served requiring repairs ..	11	..	..
(2) Number of dwelling-houses which were rendered fit :—			
(a) By owners	109	130	237
(b) By Local Authority in default of owners ..	11	..	..
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ..	..	..	..
B.—Proceedings under Public Health Acts.			
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	25,509	28,668	27,040
(2) Number of dwelling-houses in which defects were remedied :—			
(a) By owners	20,706	24,291	24,986
(b) By Local Authority in default of owners ..	..	..	..
C.—Proceedings under sections 17 and 18 of the Housing, Town Planning, &c. Act, 1909.			
(1) Number of representations made with a view to the making of Closing Orders .. .. .	..	14	14
(2) Number of dwelling-houses in respect of which Closing Orders were made .. .. .	..	1	1
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit .. .. .	..	..	..
(4) Number of dwelling-houses in respect of which Demolition Orders were made .. .. .	..	..	..
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders .. .. .	..	4	5

MINISTRY OF HEALTH TABLES.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1922 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	Of Non-residents registered 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 Births.		
1	2	3	4	5	6	7	8	9	10	11	12	13
1912	447,746	10,367	10,309	23.1	6,204	13.9	275	467	1,051	102	6,396	14.3
1913	457,295	10,947	10,877	23.4	7,231	15.6	281	287	1,469	135	7,237	15.6
1914	459,260	10,749	10,652	23.3	6,874	15.0	313	324	1,324	124	6,885	15.0
1915	459,260	9,990	9,877	21.5	7,557	16.5	298	350	1,253	127	7,609	16.6
1916	446,349	9,572	9,432	21.1	6,867	15.4	302	381	1,216	129	6,946	15.6
1917	438,254	7,738	7,566	17.3	6,962	15.9	307	397	1,023	135	7,052	16.1
1918	427,589	7,609	7,392	17.3	8,452	19.8	318	395	984	133	8,529	19.9
1919	430,834	7,837	7,564	17.6	7,099	16.5	401	294	899	119	6,992	16.2
1920	448,913	11,587	11,229	25.0	6,725	15.0	417	283	1,232	110	6,591	14.7
1921	465,500	10,427	10,144	21.8	6,424	13.8	408	269	997	98	6,285	13.5
1922	466,700	9,500	9,253	19.8	6,589	14.1	425	315	935	101	6,479	13.9

Area of District in }
acres (land and } 28,089½
inland water)

Total population at all ages at the 1921 Census 458,320

Do. adjusted for the 1921 Census 465,500

TABLE II. CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE CALENDAR YEAR 1922.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY. (e.g. Parish or Ward) of the District.													Total Cases re-moved to Hos-pital.						
	At all Ages.	At Ages—Years.						Central.	North.	North-East.	New Ward.	East.	South.	East Hunslet.	West Hunslet.	Middleton.	Holbeck.	Mill Hill.	West.	North-West.		Brunswick.	New Wortley.	Armley and Wortley.	Bramley.	Headingley.	
		under 1.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.																				65 and upwards.
Small-pox ..	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Cholera (C) Plague (P) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Mem-branous croup) ..	470	7	97	245	79	33	9	..	..	30	12	46	10	23	34	3	29	9	17	35	41	24	31	21	25	428
Erysipelas ..	228	2	1	15	30	57	96	27	8	16	4	30	5	19	14	..	14	5	8	20	5	8	18	11	13	46	
Scarlet Fever..	2,722	18	364	1,748	464	121	7	..	61	250	32	283	65	142	203	3	234	43	118	203	139	147	162	86	331	2,355	
Measles ..	9,932	530	5,327	4,026	29	16	4	..	120	868	167	1,229	382	1,084	841	8	984	55	365	562	291	486	538	112	840	141	
German Measles ..	146	11	72	58	5	..	..	..	5	11	7	2	30	57	14	1	1	..	3	2	1	..	1	..	11	..
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	14	..	1	6	2	4	1	..	..	3	1	5	..	..	..	..	..	1	..	..	..	..	1	..	1	9
Relapsing fever (R) Continued fever (C) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	35	..	..	..	13	22	..	..	..	..	..	1	3	1	5	..	..	..	2	2	1	6	7	..	4	11
Continued High Temperature ..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Meningitis ..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Polionyelitis ..	5	1	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	1	..	..	..	1	..
Ophthalmia Neonatorum ..	66	66	..	..	..	..	..	..	1	5	1	7	5	..	3	..	4	1	12	5	..	4	5	3	5	..
Encephalitis Lethargica ..	3	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	1	..
Malaria ..	15	..	..	..	8	7	..	..	..	3	..	2	..	..	1	..	3	..	1	2	2	..	..	..	..	..
Dysentery ..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Trench Fever ..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis ..	824	1	20	111	179	349	145	19	29	71	8	93	30	66	59	2	43	7	64	58	43	46	35	28	61	536	
Other Forms of Tuberculosis ..	172	2	29	84	32	21	4	..	8	18	1	23	3	11	13	2	12	..	5	13	11	10	9	6	10	48	
Pneumonia (Acute primary) ..	406	26	76	68	47	86	72	31	4	44	5	29	32	36	39	1	51	8	3	34	12	24	23	10	26	..	
Do. (Acute Influenzal) ..	100	4	9	8	10	38	21	10	4	32	15	3	5	..	5	..	6	1	4	..	4	2	3	2	7	..	
TOTALS ..	15,142	669	5,999	6,370	898	757	361	88	251	1,506	1,320	236	1,786	540	1,440	1,231	20	1,382	130	605	938	551	758	833	279	1,336	3,575

Isolation Hospital or Hospitals, Sanatoria, &c.:—City Fever Hospital, Seacroft and Killingbeck.

In addition to the 536 Pulmonary Tuberculosis and 48 Tuberculosis (Other Forms), removed, 128 Pulmonary Tuberculosis and 5 Tuberculosis (Other Forms), were admitted to Armley Sanatorium, and 127 Pulmonary Tuberculosis and 6 Tuberculosis (Other Forms), were admitted to Gateforth Sanatorium which is outside the City. They are included in the 824 and 172 notified.

TABLE III.

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CAUSES OF, AND AGES AT DEATH DURING THE CALENDAR YEAR 1922.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District.
	ALL AGES.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1. Enteric Fever	7	..	..	..	3	1	2	1	..	7
2. Small-pox .. ..	..	..	..	..	..	..	..	..	..	..
3. Measles	152	35	61	46	10	..	..	..	..	32
4. Scarlet Fever	33	..	6	8	11	5	2	1	..	29
5. Whooping Cough	115	47	39	23	6	..	..	..	..	17
6. Diphtheria and Croup ..	28	6	4	8	9	..	1	..	..	27
7. Influenza	169	7	8	10	6	11	29	49	49	21
8. Erysipelas	11	..	..	..	1	1	1	6	2	8
9. Phthisis (Pulmonary Tuberculosis)	533	5	5	7	28	117	212	135	24	187
10. Tuberculous Meningitis ..	38	5	8	9	8	6	2	..	..	18
11. Other Tuberculous Diseases	82	5	13	8	8	16	13	15	4	49
12. Cancer, malignant disease ..	595	..	..	1	1	2	60	326	205	219
13. Rheumatic Fever	37	..	..	1	7	9	4	14	2	7
14. Meningitis	76	17	6	7	6	3	1	8	28	46
15. Organic Heart Disease ..	672	..	..	..	14	13	80	233	332	152
16. Bronchitis	596	86	24	4	2	5	20	126	329	24
17. Pneumonia (all forms) ..	502	118	75	39	12	16	69	98	75	129
18. Other diseases of respiratory organs	90	3	4	5	..	1	9	24	44	49
19. Diarrhoea and Enteritis ..	108	82	10	4	..	..	1	6	5	30
20. Appendicitis and Typhlitis	17	..	..	..	8	4	3	..	2	26
21. Cirrhosis of Liver	17	..	..	1	..	..	4	8	4	9
21a. Alcoholism	5	..	..	..	..	..	1	4	..	2
22. Nephritis and Bright's Disease	206	..	1	..	4	9	27	84	81	84
23. Puerperal Fever	14	..	..	..	..	3	11	..	..	16
24. Other accidents and diseases of Pregnancy and Partu- rition	18	..	..	..	..	4	14	..	..	16
25. Congenital Debility and Malformation, including Premature Birth ..	339	335	1	2	..	1	..	..	..	153
26. Violent Deaths, excluding Suicide	190	17	1	13	17	16	29	44	53	134
27. Suicide	48	..	..	..	..	5	15	17	11	12
28. Other Defined Diseases ..	1,772	167	17	14	37	34	154	457	892	584
29. Diseases ill-defined or un- known	9	..	..	1	..	..	2	5	1	2
Totals	6,479	935	283	211	198	282	766	1,661	2,143	2,089

TABLE IV.

INFANT MORTALITY. CALENDAR YEAR 1922. 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 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
Small-pox .. ..	..	..	..	..	..	..	..	..	..	..
Chicken pox .. ..	..	..	..	..	..	..	..	..	..	..
Measles .. ..	..	..	..	..	..	1	5	13	16	35
Scarlet fever .. ..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .. ..	..	..	1	1	2	3	13	15	14	47
Diphtheria and Croup .. ..	..	..	1	..	1	1	..	..	4	6
Influenza .. ..	..	..	..	..	..	..	3	2	2	7
Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis .. ..	..	..	..	..	..	..	2	1	2	5
Abdominal Tuberculosis .. ..	..	..	..	..	..	1	..	1	1	3
Other Tuberculous Diseases .. ..	..	..	..	..	..	..	3	2	2	7
Meningitis (not Tuberculous) .. ..	..	..	1	1	2	2	4	5	4	17
Convulsions	15	9	4	6	34	18	3	2	4	61
Laryngitis .. ..	..	..	..	..	..	..	..	..	..	..
Bronchitis .. ..	..	3	4	5	12	35	11	19	9	86
Pneumonia (all forms)	3	..	1	..	4	15	20	42	37	118
Diarrhoea	2	4	14	6	26	18	17	7	14	82
Enteritis .. ..	..	..	..	..	..	..	..	..	..	..
Gastritis .. ..	..	3	2	..	5	3	5	3	1	17
Syphilis	2	2	2	5	11	8	4	..	3	26
Rickets .. ..	..	..	..	..	..	..	..	..	1	1
Suffocation, overlying	2	..	..	..	2	2	2	..	..	6
Injury at birth	15	1	..	..	16	1	..	..	..	17
Atelectasis	20	1	..	..	21	1	..	..	..	22
Congenital Malformations	10	11	5	3	29	9	6	5	2	51
Premature birth	114	24	23	6	167	11	2	1	..	181
Atrophy, Debility and Marasmus	19	18	8	16	61	22	14	5	1	103
Other Causes	4	1	2	1	8	8	11	4	6	37
Totals	206	77	68	50	401	159	125	127	123	935

