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1910.

ANNUAL REPORT
ON THE
HEALTH
OF THE
CITY OF HEREFORD,

BY

J. W. MILLER, M.D., D.P.H., F.C.S.

MEDICAL OFFICER OF HEALTH ;
MEDICAL SUPERINTENDENT OF THE CITY ISOLATION HOSPITALS ,
AND SCHOOL MEDICAL OFFICER.

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Health Office,

Town Hall, Hereford;

March 30th, 1911.

To the Mayor, Aldermen, and Councillors of the City of Hereford.

MR. MAYOR AND GENTLEMEN,

I have the honour to submit my Third Annual Report on the health of the City of Hereford, for the year 1910.

It is satisfactory to note that the death-rate is the lowest ever recorded for the City.

There has been a smaller number of deaths from epidemic diseases compared with 1909, and the death-rate from Scarlet Fever is the lowest since 1889; it is satisfactory to note that no deaths occurred from Measles and only one death from Diphtheria and Whooping-Cough.

The death-rate from Phthisis is still high, and I hope that shortly a County Sanatorium will be provided to which consumptives can be sent from this town; such an institution is urgently required.

In regard to some matters, the information I have given is rather brief, but I have had to make the best use of the space at my disposal.

I am, Gentlemen,

Your obedient servant,

J. W. MILLER.

CITY OF HEREFORD.

STATISTICAL SUMMARY FOR 1910.

Situation : North Latitude	.. .. .	52° 3' 20''
West Longitude	.. .. .	2° 43' 10''
Area of Municipal Borough	.. .. .	5,031 acres
Rateable Value	.. .. .	£131,870
Population at Census, 1901	.. .. .	21,382
Number of Inhabited Houses at Census, 1901	.. .. .	4,565
Average Number of Persons per House at Census, 1901		4.68
Estimated Population to the middle of 1910	.. .. .	22,652
Average Number of Persons per acre	.. .. .	4.5
Birth-rate, 1910	.. .. .	21.85
Average Birth-rate for the previous ten years	.. .. .	23.2
Death-rate, 1910	.. .. .	13.59
Average Death-rate for the previous ten years	.. .. .	15.4
Corrected Death-rate, 1910	.. .. .	12.83
Zymotic Death-rate	.. .. .	.3
Average Zymotic Death-rate for previous ten years	.. .. .	.89
Infant Mortality per 1,000 births	.. .. .	101
Average Infant Mortality for the previous ten years	.. .. .	115
Phthisis Death-rate	.. .. .	.88
Average for previous ten years	.. .. .	1.15

ANNUAL REPORT
OF THE
Medical Officer of Health
TO THE
Town Council, City of Hereford,
FOR THE YEAR 1910.

PHYSICAL FEATURES, &c.

An account was given of the Physical Features of the town as well as the Geology, Occupation of the Inhabitants, etc., in the Annual Report for 1908, pages 11-13.

POPULATION.

The population of the City as estimated by the Registrar General to the middle of 1910 is 22,652, and it is on this estimate that I have calculated the various rates for the year 1910. This estimate is based on the assumption that the increase since 1901 has gone on at the same rate as between 1891 and 1901.

If the census were taken every five years the population in inter-censal years could be estimated more accurately, and this particularly applies to the population of the various Wards.

On account of the larger number of old people and larger proportion of females in the City as compared with England and Wales, a correction must be made in estimating the death-rate, for comparison with other towns.

On page 11 of the Annual Report for 1909 is shown the population for years 1754, 1785, 1801 and periods of 10 years after this latter date, with the percentage increase over the previous period. The most marked increase in the population was during the period 1851 to 1861, 29.2 per cent.; for 1811 to 1821 the increase was 24.4 per cent., and for 1891 to 1901 it was 5.5 per cent., more than double the rate of increase during the years 1881 to 1891.

BIRTHS.

During the year 495 births were registered, 247 males and 248 females. This gives a rate of 21.85 per thousand of the population, compared with 21.59 during the preceding year, an increase of .26 per thousand, and comparing the rate with the average for the preceding 10 years, a diminution of 1.35 per thousand.

The birth-rates for England and Wales for the year 1910 were as follows :—

	Per 1000 of population.
England and Wales	24.8
77 Great Towns	25.0
136 Smaller Towns	23.7
England and Wales less the 213 towns ..	25.0

The number of married persons in Hereford at the last census was given along with the statistics for the whole county and not separately. There can be no doubt that the most accurate rate is that calculated on the number of married women between the ages of 15 and 45 years.

The following Table shows the birth-rates for the City for quinquennial periods since the year 1876, compared with the rates for England and Wales during the same periods.

Period.	Birth-rates per 1,000 of the population.	
	Hereford.	England and Wales.
1876-80	25.3	35.3
1881-85	25.4	33.5
1885-90	24.7	31.4
1891-95	25.0	30.4
1896-1900	25.3	29.2
1901-1905	23.9	28.1
1906	21.5	27.07
1907	23.9	26.2
1908	21.5	26.5
1909	21.59	25.6

It will be seen from this table that there has been a steady decline in the birth-rate for England and Wales since the year 1876. In the case of Hereford from 1876 to 1900 there was very little variation in the average, but since 1900 there has been a rather marked decrease. The lower rates for the City since 1876 as compared with England and Wales are probably partly accounted for by the fact that the proportion of married women in Hereford from 15 to 45 years is less than that for England and Wales.

There were 32 illegitimate births registered during the year. In four instances the mothers belonged to outside districts. There were eight births in the Workhouse. Excluding the four births referred to above, the percentage of illegitimate to total births was 5.7.

The percentage of illegitimate to total births for England and Wales for the year 1909 was 4.1.

There were 14 illegitimate births in Ledbury Ward, 13 in Leominster and 5 in Monmouth Ward.

Out of the 32 illegitimate births 6 deaths occurred under one year equal to a percentage of 18.7 of the illegitimate births or 187 per 1,000, as compared with 93, per 1,000 for legitimate children. Some particulars of these deaths are given under Infantile Mortality and Diarrhœa.

DEATHS.

The total number of deaths registered during the year was 350; of these 42 were non-residents and have been excluded and 4 deaths of residents in the Burghill Asylum have been included.

Of the 42 non-residents, 36, were from districts in Herefordshire, and one each from Radnorshire, Breconshire, Worcestershire, Shropshire, Warwickshire and Suffolk. Twelve of these deaths occurred in the Workhouse and 27 in the Herefordshire General Hospital.

Of residents, 32 deaths occurred in the Workhouse and have been assigned to their respective Wards as follows:—Ledbury 18, Leominster 10, and Monmouth 4; 26 deaths occurred in the General Hospital and have been assigned as follows:—Ledbury Ward 9, Leominster 14 and Monmouth 3.

The nett deaths after deducting 42 non-residents from the total number of registered deaths and adding on the 4 residents who died in the Asylum amounted to 308, 149 males and 159 females; equal to a recorded death-rate of 13.59 and a corrected death-rate of 12.83 per 1,000 of the population.

I have not given the death-rate for each Ward as it is very difficult to estimate even approximately the population nine years after the census has been taken.

There is a larger proportion of females to males in Hereford than in England and Wales as a whole; taking the number of males as 100 in the year of the census (1901), the ratio of females to males in Hereford City was 117 and in England and Wales 107. There are also a smaller number of children under 5 years of age and a larger proportion of old people than in England and Wales as a whole.

Taking into consideration the age and sex distribution of the population of the City as compared with England and Wales, it is necessary in making comparisons with the death-rate for England and Wales and other towns that a correction should be made. The "Factor for Correction" for the City is .9442. The corrected death-rate is obtained by multiplying the recorded death-rate by this factor; the death-rate for the City as so ascertained for the year 1909 was 12.83 per 1000.

The method by which this factor is obtained is given on page 19 of the Annual Report for 1908.

The death-rate of the City for 1910 was the lowest on record as is shown in the table on page 15, Annual Report for 1909; this

is very satisfactory. The decline in the death-rates of the City and England and Wales during quinquennial periods is also shown.

The following are the death-rates for England and Wales for the year 1910 :—

	Death-rate.	
	Crude.	Corrected.
England and Wales	13.4	13.4
77 Great Towns	13.4	14.3
136 Smaller Towns	12.4	12.9
England and Wales less the 213 towns	13.6	12.8

The death-rate for the City compares favourably with the death-rates of other towns of the same size.

The largest number of deaths in the city occurred during the fourth quarter of the year 94, the deaths during the remaining quarters were 83, 90 and 41 respectively.

The percentages of deaths at different age periods for 1910 and 1909 were as follows :—

	1910	1909
50 deaths occurred under 1 year	15.24	16.05 %
10 deaths „ from 1 to 5 years	3.25	5.87 %
24 deaths „ „ 5 to 25 years	7.79	4.94 %
101 deaths „ „ 25 to 65 years	32.79	32.09 %
123 deaths „ „ 65 years upwards..	39.93	41.05 %

During 1910 there was a smaller proportion of deaths of children 1 to 5 years and old people over 65 years. On the other hand a larger proportion of persons died during the age period 5 to 25 years.

The following table shows the chief causes of death (75 %) during the year, 1910.

Cause of Death.	Number.	Percentage.
Heart Disease	44	14.28
Old Age	38	12.34
Tuberculosis (all forms)	28	9.09
Apoplexy	23	7.46
Cancer	20	6.49
Bronchitis	18	5.84
Pneumonia	17	5.51
Premature Birth	10	3.24
Atrophy, Debility, Marasmus	9	2.92
Accidents	8	2.59
Enteritis	7	2.24
Influenza	6	1.95
Bright's Disease	6	1.95
Total	234	75.9

TABLE OF DEATHS.

From the principal forms of Disease during the last Ten Years.

Name of Disease.	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	Total for 10 yrs 1900-09	Average rate 1900-09	1910	Rate for 1910
Small-pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles	11	0	1	16	1	3	17	5	4	0	59	.27	0	0
Scarlet Fever	1	0	0	1	4	1	2	1	1	1	11	.05	1	.04
Whooping Cough	14	6	2	2	10	1	2	3	4	4	54	.24	1	.04
Diphtheria and Membranous Croup	1	2	2	2	7	11	8	2	2	1	38	.17	2	.09
Typhoid Fever	0	0	0	1	0	0	1	1	0	0	3	.01	2	.09
Influenza	12	6	6	5	4	9	4	2	3	2	53	.24	6	.27
Diarrhœa	4	3	2	1	3	1	9	1	6	2	32	.15	1	.04
Puerperal Fever	0	0	1	2	1	1	2	1	0	0	8	.04	0	.0
Erysipelas	0	1	0	1	3	1	1	0	0	0	7	.03	1	.04
Phthisis	25	28	22	21	29	20	26	22	31	28	252	1.15	20	.88
Other Tubercular Diseases	14	15	6	18	12	13	12	7	11	15	123	.56	8	.35
Cancer	22	22	26	25	13	21	23	19	21	29	221	1.00	24	1.06
Bronchitis, Pneumonia, Pleurisy and Diseases of the Respiratory Organs	63	49	58	39	63	56	36	51	36	43	494	2.26	36	1.58
Heart Disease	43	48	52	41	34	40	50	54	47	44	453	2.01	44	1.94
Violence	12	8	7	7	7	3	1	3	8	8	64	.29	11	.46
Other	152	157	159	171	140	131	156	137	153	143	1499	6.83	151	6.67

The following Table shows the gains and losses in the death-rates per 1,000 persons living in the year 1910 compared with the average rate for the ten years 1900-1909.

GAINS.

NAME OF DISEASE.	Average Rate 1900-1909	Rate during 1910.	Gains per 1000.	Probable No. of lives gained.
All causes	15.32	13.59	1.73	39
Measles .. .. .	.27	.00	.27	6
Scarlet Fever .. .. .	.05	.04	.01	$\frac{1}{4}$
Whooping Cough .. .. .	.24	.04	.20	$4\frac{1}{2}$
Diphtheria .. .. .	.17	.09	.08	2
Diarrhœa.. .. .	.14	.04	.10	3
Puerperal Fever .. .. .	.04	.00	.04	1
Phthisis	1.14	.88	.26	6
Other Tubercular disease	.56	.35	.21	$4\frac{1}{2}$
Heart Disease	2.01	1.94	.07	$1\frac{1}{2}$
Respiratory Diseases .. (other than Phthisis)	2.26	1.58	.68	$15\frac{1}{2}$
Other Diseases	6.83	6.67	.16	4
Gross Gains			2.08	$48\frac{1}{4}$

LOSSES.

NAME OF DISEASE.	Average during 10 years 1900-1909	Rate 1910	Losses per 1,000	Probable No of lives lost
Typhoid Fever .. .. .	.01	.09	.08	nearly 2
Influenza .. .. .	.24	.27	.03	$\frac{3}{4}$
Erysipelas .. .. .	.03	.04	.01	$\frac{1}{4}$
Cancer	1.00	1.06	.06	$1\frac{1}{2}$
Violence .. .. .	.29	.46	.17	4
Gross Losses .. .. .			.35	$8\frac{1}{2}$

The death of a person in a population of 22,652 corresponds to a rate of .044 per 1,000. Hence the saving or loss of a rate of .044 means the saving or loss of one human life, therefore 1.73 means the saving or loss of 39 lives.

The value in the case of each male life has been estimated by taking as the standard a labourer, and capitalising the wages earned by him, the means of subsistence being deducted. The value thus ascertained is found to be over £120. Assuming that one-half of the 39 lives saved in Hereford during 1910 on the average of the previous 10 years, were males, the nett gain to the community would be over £2400. As the remaining females lives are equal to a certain money value the nett gain in wealth would be higher than this amount.

UNCERTIFIED DEATHS.

There was 1 uncertified death during the year (.3 per cent.), and the following cause of death was assigned :—Male, 5 days, Convulsions.

INQUESTS.

During the year 13 inquests were held on the deaths of residents and the verdicts found by the coroner's juries were as follows :

Natural Causes :—

Cerebral Hæmorrhage	..	..	..	..	..	..	..	..	1
Heart Disease	..	..	..	..	..	..	..	..	2

Accidents or Negligence :—

Suffocation	..	..	..	..	..	..	..	..	1
Burns	..	..	..	..	..	..	..	..	1
Injuries	..	..	..	..	..	..	..	..	4
Poisoning	..	..	..	..	..	..	..	..	1

Suicides :—

Hanging	..	..	..	..	..	..	..	..	1
Poisoning	..	..	..	..	..	..	..	..	1
Drowning	..	..	..	..	..	..	..	..	1

INFANTILE MORTALITY.

During the year 50 deaths occurred of infants under one year, and the infantile mortality rate (proportion of deaths under one year of age to 1,000 births) was 101 as compared with 107 in 1909, and with an average rate of 115 for the 10 years 1900-1909. The infantile death-rates for England and Wales during 1910 were as follows :—England and Wales 106 per 1,000 births ; 77 great towns, 115 per 1,000 ; 136 smaller towns, 104 per 1,000 ; England and Wales less the 213 towns, 96 per 1,000.

Of the 50 deaths, 28 were males and 22 females ; 19 deaths occurred in the Ledbury Ward, 22 in Leominster and 9 in Monmouth Ward, the rates being 109, 99 and 90 respectively.

Fifteen deaths occurred in the first quarter of the year, 18 in the second quarter, 6 in the third quarter and 11 in the last quarter: thus the largest number occurred in the second quarter.

Table V. (L.G.B.), Appendix, shows the various causes of death and the age at death. The causes may be arranged into the following groups:—

Premature Birth	.. .. .	10
Congenital Defects	.. .. .	4
Atrophy, Debility, Marasmus	.. .. .	9
Enteritis	.. .. .	6
Diarrhœa	.. .. .	1
Convulsions	.. .. .	4
Tuberculosis	.. .. .	0
Respiratory Disease	.. .. .	9
Infectious Disease	.. .. .	2
Other Disease	.. .. .	5
		—
Total	.. .. .	50
		—

If it be assumed that at least 50 per cent. of the deaths in connection with Atrophy, Debility and Marasmas occurred through improper feeding, probably about one third of the total deaths under one year were due to this latter cause.

On page 22, Annual Report for 1909, are given the causes of death of infants under one year since 1899. Out of the 50 infantile deaths which were registered in 1910, between one third and a half occurred during the first month and over three quarters during the first six months.

Enquiries were made in regard to 10 deaths, where it was considered errors in feeding were connected with the death of the infant. Particulars of one of these deaths is given under Diarrhœa on page 23.

The following information was obtained in respect to feeding:—

BREAST MILK.—In two of the cases the infants were breast-fed up to within a short time of death.

(1) A female, 9 days, died from marasmus and pemphigus. Total children two; one living. (2) A male, 12 days, died from pemphigus and asthenia. Prematurely born. Total children 11, 6 living. The house contained 2 living rooms and 2 bedrooms, and the number of occupants was 8, viz. 2 adults and 6 children,

BREAST MILK AND COWS' MILK OR ARTIFICIAL FOOD.—(1) A male, 4 months, died from marasmus. Breast-fed for the first 3 weeks, then with cows' milk diluted with lime water. Total children 9; 6 living. Mother of infant a widow and means of subsistence low. House rather dirty.

(2) A male, 5 months, died from marasmus. Breast-fed for 4½ months, then on barley water. Baby weakly from birth. Mother unable to continue breast-feeding owing to illness; means of subsistence low owing to irregular work of husband. Total children 14; 8 living. The house contained 2 livingrooms and 2 bedrooms and was over-crowded, containing 2 adults and 8 children.

(3) A male, 2 months (illegitimate), died from convulsions. Breast-fed for first 6 weeks and afterwards fed on condensed milk and patent foods. Total children 1; house rather dirty.

COWS' MILK.—A male, 2 months, (illegitimate) died from Acute Enteritis. Fed on cows' milk diluted with water. No attempt to use breast-milk. Total children 1.

COWS' MILK AND ARTIFICIAL FOODS.—(1) A male, 2 months, died from malnutrition. On cows' milk for 3 weeks and Nestle's milk the remainder of the time. House very dirty. Total children 5; living 4.

(2) A male, 6 months, (illegitimate) died from convulsions. Fed for 3 months on cows' milk and the remainder of the time on malted food. House dirty.

OTHER.—A female, 5 months, died from marasmus, bronchitis and convulsions. Was fed on condensed milk owing to want of breast milk.

In the majority of the cases the feeding bottle was fitted with a long tube; in only a few cases was a suitable bottle used.

SANITARY CONDITION OF HOUSES.—This was on the whole fairly good, except where otherwise stated. There were two cases of overcrowding. All the houses were on the water carriage system; refuse was deposited in old boxes, tins etc. and these were emptied weekly.

FOOD STORAGE.—The food was kept in a cupboard in the livingroom or back-kitchen in six instances, but no proper ventilation was provided.

REMARKS.—The infants belonged to the working class. In some instances prematurity and debility from birth were predisposing

causes, whilst in others the substitution of cows' milk or artificial foods for the natural milk of the mother was an important factor in the causation of death. Absence of proper nourishment for the mother before and after the birth of the child was also another important factor.

The instruction of the older girls in the elementary schools in the feeding and care of infants will assist in the reduction of the infantile mortality. Further reference is made to this matter in connection with the teaching of Hygiene and Temperance in schools.

While the infantile mortality rate for last year is comparatively low, there are indications that there is still ignorance in regard to the feeding of infants.

The rates for the City and the various Wards during the last 10 years are given below:—

Year.	City.	Wards.		
		Ledbury.	Leominster.	Monmouth.
1901	129	142	124	115
1902	112	129	99	100
1903	138	120	165	118
1904	124	129	107	148
1905	78	87	56	117
1906	144	176	112	145
1907	95	88	97	102
1908	95	110	82	100
1909	107	90	113	125
1910	101	109	99	90
Average	112	117	105	116

The above table shows that as recently as 1906 the rate in Ledbury Ward was 176, similarly in Leominster Ward in 1903 it was 165; and in Monmouth Ward 148 in 1904 and 125 in 1909. For the years 1905 and 1907 the rates were low throughout the country, the summers being cool and the rainfall higher than usual; when the summers are dry and hot the rates are high. The low average for the City is also partly due to the lower birth-rate.

In a town such as Hereford, the average rate should not be more than 100, as the women are not employed in industrial occupations.

ZYMOTIC DISEASE.

The Zymotic death-rate for the year 1910 was .3 for the City, compared with .53 for the year 1909 and .89 for the ten years 1900 to 1909. The zymotic death-rates for England and Wales for 1910 were as follows :—

	per 1,000 of population.
England and Wales .. .. .	.99
77 Great Towns	1.23
136 Smaller Towns .. .. .	.88
England and Wales less the 213 Towns .. .. .	.74

The diseases included in the zymotic death-rate are seven in number :—Small-pox, Scarlet Fever, Diphtheria (including Membraneous Croup), Typhoid Fever, Measles, Whooping Cough and Diarrhœa.

The number of deaths from these diseases during the year were as follows :—Small-pox, 0 ; Scarlet Fever, 1 ; Diphtheria, 2 ; Typhoid Fever, 2 ; Measles, 0 ; Whooping Cough, 1 ; and Diarrhœa, 1.

The following table shows the death-rate for the City from each of the 7 Zymotic Diseases for the year 1910 compared with the rates for England and Wales for the same period :—

	City of Hereford.	England & Wales.	77 Great Towns.	136 Smaller Towns.	England & Wales less the 213 Towns.
Smallpox .....	.00	.00	.00	.00	.00
Scarlet Fever .....	.04	.06	.08	.06	.03
Diphtheria .....	.09	.12	.12	.11	.12
Typhoid Fever ...	.09	.05	.05	.05	.05
Measles .....	.00	.23	.31	.16	.15
Whooping Cough .	.04	.24	.29	.24	.17
Diarrhœa.....	.04	.29	.38	.26	.20

It will be seen that the rates for the City are lower than those for the 136 smaller Towns, and also for the whole of England and Wales in regard to each disease except Typhoid Fever.

The death-rate in connection with Diarrhœa is very low compared with other towns. In the table on page 28, Annual Report for 1909, the number of deaths from each of the Zymotic Diseases is given for each year since 1875, and on page 29 of the same Report the rates per thousand of the population for five yearly periods since 1876 for the City and England and Wales are also given.

The rate per thousand for each disease for the year 1910 and the previous 10 years are given on page 17 of this Report.

SCARLET FEVER.

Nineteen cases of Scarlet Fever (8 males and 11 females) were notified during 1910, compared with 39 for the previous year; 9 of the cases belonged to Ledbury ward, 3 to Leominster and 7 to Monmouth Ward.

There was only one death, of a female aged 29 years.

The ages were as follows:—

0-5 years.	5-10	10-15	15-25	25-35
7	5	4	1	2

The majority of the cases occurred among children, viz. 84 per cent. under 15 years; 17 of the cases (89 per cent.) were removed to Hospital and no deaths occurred.

The 19 cases occurred in 17 houses. Several of the houses were large, but in the majority a bedroom was not available for isolation purposes; there was no over-crowding.

On the whole the sanitary arrangements were good, but in one case there were defects in connection with the drainage, and in another case there was an improperly constructed earth closet.

In connection with another house the sink drain and rain water pipes were untrapped and the yard unpaved.

A boy aged 4 years had Diphtheria as a complication.

There were no return cases but there was one secondary case, particulars of which are as follows:—A male, 5 years, developed the disease on August 7th, and a sister 3½ years on August 11th. The infection in the latter case was from the brother before removal of both to Hospital.

Particulars in regard to the disease since 1875 are given on page 19.

SCARLET FEVER STATISTICS, CITY OF HEREFORD.

Year.	Notifications.	Under 5 years of Age.	Total Deaths.	Attack per 1,000 Population.	Mortality per 1,000 Population.	Case Mortality per cent.	Cases removed to Hospital.	Percentage removed to Hospital.	Deaths in Hospital.	
1875	..	..	7	For this period Statistics not available.	.36	..	..	..	..
1876	..	..	75		3.90	..	..	..	..
1877	..	..	11		.57	..	..	..	..
1878	..	..	4		.20	..	..	..	..
1879	..	..	0		.00	..	..	..	..
1880	..	..	5		.25	..	..	..	..
1881	..	..	13		.65	..	..	..	..
1882	..	..	12		..	.60	..	..	..
1883	62	20	9		3.10	.45	14	(a)
1884	21	11	1		1.05	.04	4	..	..
1885	7	3	0	0.35	.00	0	..	..
1886	15	5	1	0.75	.04	5	..	..
1887	33	3	0	1.65	.00	0	..	..
1888	9	4	0	0.44	.00	0	..	..
1889	14	6	0	0.69	.00	0	..	..
1890	32	9	0	1.58	.00	0	..	..
1891	26	10	1	1.28	.04	3	..	..
1892	72	40	0	3.53	.00	0	..	..
1893	165	94	16	8.07	.78	9	15	9	1	
1894	146	81	3	7.09	.14	2	38	26	0	
1895	155	54	3	7.48	.14	1	70	45	1	
1896	70	20	0	3.35	.00	0	17	24	0	
1897	65	25	3	3.09	.14	4	39	60	1	
1898	31	8	0	1.46	.00	0	15	51	0	
1899	39	13	1	1.83	.04	2	32	85	1	
1900	37	15	1	1.73	.04	2	24	63	1	
1901	51	15	0	2.38	.00	0	32	63	0	
1902	56	8	0	1.67	.00	0	27	75	0	
1903	24	8	1	1.10	.04	4	12	50	1	
1904	65	8	4	2.96	.18	6	45	69	4	
1905	55	6	2	2.49	.09	3	35	64	1	
1906	31	6	0	1.39	.00	0	22	71	0	
1907	34	8	2	1.52	.08	6	26	76	1	
1908	58	9	1	2.59	.04	1	45	77	1	
1909	39	9	1	1.73	.04	2	30	76	1	
1910	19	7	1	.83	.04	5	16	84	0	

- (a) For the period, 1883 to 1889 inclusive, notification was voluntary, consequently comparisons with other years are highly unsatisfactory or worthless. Compulsory Notification was adopted in January, 1890, and the Isolation Hospital opened in May, 1893.
- (b) The Isolation Hospital was closed to the public by order of the Sanitary Committee on February 24th, 1902, pending the erection of a Temporary Isolation Hospital for Smallpox cases. The Hospital was re-opened on 21st April. During that period 8 patients suffering from Scarlet Fever were treated in their own homes.
- (c) These persons were in a hopeless condition when removed to Hospital.
- (d) Of these 4 cases 2 were of a malignant character and considered almost hopeless before removal to Hospital; the third case was complicated by Diphtheria; the fourth was accompanied by Bronchitis.
- (e) This was a case from the Rural Districts admitted into the General Hospital and removed to the Isolation Hospital.

DIPHTHERIA.

During the year 31 cases of Diphtheria (15 males, and 16 females) were notified, compared with 18 in 1909. Nine cases occurred in the Ledbury Ward, 14 in Leominster Ward, and 8 in Monmouth Ward.

The ages were as follows :—

Age periods	1-5	5-10	10-15	15-25	25-35	35-45
Number of cases	7	5	7	4	3	5

The majority of cases (61 per cent.) occurred below the age of 15 years, and 38 per cent. below the age of 10 years.

In connection with these 31 cases, 1 death occurred, that of a female aged 6 years, who was removed to Hospital in a dying condition.

Altogether 21 cases (67 per cent.) were removed to Hospital.

The sanitary condition of the houses was on the whole satisfactory. The drainage was defective in connection with one house, and there were "D" traps in connection with the gullies of another house and also an untrapped rain-water pipe.

The 31 cases occurred in 19 houses, mostly of the working class. In the majority of cases there was not a bedroom available for isolation purposes. In one house containing 3 bedrooms there were 3 adults and 6 children.

Where isolation could not be properly carried out the patients were removed to hospital. Several cases were also removed in connection with which no proper nursing could be provided. In three houses there were three cases, and in four houses two cases. In several instances the parents were averse to having the cases removed to Hospital, and in other cases a Doctor was called in late. Had medical attendance been obtained early and the first case promptly removed to Hospital the secondary cases might have been avoided. Since March, 1906, antitoxin has been provided by the Town Council free of charge in the case of poorer persons.

Swabs were generally taken by myself and occasionally by the doctor in attendance from the throats of persons residing in the same house as the patient. Where infection was found in the throat of contacts, instructions were given in regard to gargling or spraying the throat with disinfectant until another swab taken was returned as negative; by this means usually further spread of the disease was prevented. Swabs were also taken for purposes of diagnosis and in other cases for purposes of disinfection.

No patient was discharged from the Isolation Hospital until two swabs were returned as negative. The following are particulars in regard to the number of swabs taken :—

	<i>Positive.</i>	<i>Negative.</i>	<i>Suspicious.</i>	<i>Total.</i>
Diagnosis	14	38	8	60
Contacts	17	58	11	86
Disinfection	14	56	5	75

Fifty-one swabs were taken at the Isolation Hospital for purposes of Disinfection. The swabs were examined in the Laboratories of the University of Bristol.

The following are particulars in regard to notifications and deaths from Diphtheria in the City since the year 1900. Particulars in regard to notifications and deaths since 1890 are given on page 37, Annual Report, 1909.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Notifications	6	9	14	18	36	55	102	21	26	18
Deaths	1	2	2	2	7	11	8	2	3	1

ERYSIPELAS.

Nineteen cases were notified (9 males, 10 females) compared with 18 for last year. There was one death of a male aged 7 months. Nine cases occurred in Ledbury Ward, 5 in Leominster and 5 in Monmouth Ward.

Of the above cases three were notified from the Herefordshire General Hospital and three from the Workhouse. The ages were as follows :—

Age period	0-5	5-10	5-15	15-25	25-35	35-45	45-55	55-65	65 and upwards.
Number of cases	4	1	1	1	4	3	2	1	2

The parts affected were as follows :—

Face, 6; head and neck, 3; chest, 1; arm, 2; leg, 5; and foot, 1. In one case the part affected was not stated.

There was a history of injury in 5 cases, and in one instance the disease was associated with varicose ulcers of the leg and in another case with an abscess of the arm.

On the whole the sanitary condition of the houses was good. In connection with one house there was an old "D" trapped gully and a rain-water pipe was also untrapped, in addition the drainage was also defective and smells were complained of.

PUERPERAL FEVER.

No cases of this disease were notified during the year. The notifications during the last 10 years were as follows:—

1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
0	0	1	2	2	3	3	2	0	0

The deaths from this disease for the last ten years are given in the table on page 11.

TYPHOID FEVER.

Ten cases were notified (5 males, 5 females), compared with 6 in 1909. Two deaths occurred of a female aged 13 years and a male aged 45, (this latter case had been notified in 1909).

The ages were as follows:—

Age period	5-10	10-15	15-25	25-35	45-55
Number of cases	2	3	1	3	1

Of the 10 cases, 6 were traced to a common source and the particulars are as follows:—

Male, C. I., aged 20, was ill from February 15th to April 19th. The nature of the disease was somewhat obscure and a diagnosis of Cerebral Meningitis was made, but in all probability this was Typhoid Fever, as the following events shew. A maid M. L., aged 14 years, in the same house developed the disease on April 26th, she returned to her own home and died on May 10th. Another male in the same house H. P., had what appeared to be an attack of Ptomaine Poisoning, on May 7th, which lasted for about 10 days; his wife E. B. developed the disease on June 3rd. Two sisters of L. M., E. M., aged 8 years, and M. M., aged 7 years, and also an uncle T. J., aged 48 years who lived next door contracted the disease and also the nurse in attendance on L. M. I saw several of these cases and was able to confirm the diagnosis. On June 10th I took a specimen of blood from H. P. and this was found to give the Widal reaction which is associated with Typhoid Fever. C. I. who first developed the disease may have received infection from an outside source, as in the course of his work he visited various parts of the County, and probably had drunk well water.

In connection with two houses the whole drainage system was examined and found defective, necessitating entire relaying. Although these defects were found I am of opinion the infection was spread from case to case through proper precautions not having been taken. The four remaining cases were connected with four houses, and the sanitary conditions in three were satisfactory. There was a leakage of sewage in the remaining house from a defective drain.

Of the four remaining cases a male J. G., aged 12, probably contracted the disease at Newport. In the other cases the source of infection was obscure.

Four cases were treated at the General Hospital and three at the Isolation Hospital.

The following are particulars in regard to notifications and deaths from Typhoid in the City during the last 10 years. Particulars of notifications since 1891 are given on page 37, Annual Report for 1909, and particulars in regard to deaths since 1875 on page 28 of the same Report.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Notifications	1	3	2	1	3	0	3	1	0	6
Deaths	0	0	0	1	0	0	1	1	0	0

DIARRHŒA.

One death from zymotic diarrhœa occurred in the Ledbury Ward on September 9th. The baby was fed on condensed milk from birth. The sanitary conditions were on the whole satisfactory.

Another death was registered from diarrhœa, viz., a male aged 3 months who died on December 8th.

During the summer months, leaflets were forwarded to the occupants of a large number of houses, in which there had been recent births, giving directions in regard to the protection of food from flies and dust, and the importance of general cleanliness.

It was also recommended that all food should be stored in a clean, cool place; that milk should be boiled shortly before use in hot weather, and that no unwholesome food, or unripe or over-ripe fruit should be eaten.

MEASLES.

During the year there were no deaths from this disease compared with 4 in 1909. Particulars in regard to deaths since 1875 are given on page 28, Annual Report for 1909.

During the last quarter of the year an outbreak of the disease occurred among the children attending Holmer Infants' School, and particulars are given on page .

WHOOPIING COUGH.

Only one death occurred, viz., of a male, 24 days, in Monmouth Ward; there were four deaths during 1909. Particulars in regard to deaths since 1875 are given on page 28, Annual Report for 1909.

INFLUENZA.

There were 6 deaths from this disease during the year, compared with 2 for 1909. These deaths were of 5 males, and 1 female; 2 occurred in Ledbury Ward, 3 in Leominster and 1 in Monmouth Ward.

I mentioned in my Report for 1909 that the disease was present in epidemic form during the latter part of the year, and the disease continued during February of 1910. The deaths were of males aged 1 month, 2, 42, 74 and 81 years, and a female aged 50 years. In three cases the disease was associated with pneumonia and in one case with laryngitis. It is important that medical advice should be obtained early, and that affected persons should not go out of doors till quite free from the disease. Chest complications are not uncommon.

CITY HOSPITALS.

During the year 17 cases of Scarlet Fever, 21 of Diphtheria and 3 of Typhoid Fever were admitted to the Hospital. There can be no doubt that some of the cases recovered under careful nursing and would have proved fatal if they been treated at home. There was only one death, of a female, aged 6 years, from Diphtheria admitted in a hopeless condition. Particulars in regard to the number of days in Hospital, etc., are given in the table on page 26. There was one negative case, a male, aged 10 years, who suffered from Tonsillitis and Rhinorrhœa. The following are particulars in regard to complications of the cases treated :—

SCARLET FEVER.

Ear discharge	4 cases (two cases one ear only).
Nasal discharge	2 cases.
Cervical adenitis	2 ..
Bronchitis	1 case.
Dilated heart	1 ..
Sores, angle of mouth	1 ..

A boy aged 4 years had Diphtheria in association with Scarlet Fever, and a girl aged 3 years Chicken Pox on admission to Hospital.

DIPHTHERIA.

Cardiac Paralysis	6 cases
Paralysis of Palate	1 case
Ocular Muscles	1 ..
Nasal Discharge	1 ..
Ear discharge (right)	1 ..
Conjunctivitis (right)	1 ..
Bronchitis	2 cases
Laryngitis	1 case
Phlebitis	1 ..
Anuria	1 ..

It is most important in cases of Diphtheria that antitoxin should be injected as early as possible after the onset of the disease, and the longer this is delayed the greater the mortality. Statistics showing the case mortality according to the day of the disease are given on page 43, Annual Report for 1909.

The following are particulars of cases admitted to the Tupsley Fever Hospital during 1910 :—

Cases treated on 1st day of the Disease	..	2
„ 2nd	„	4
„ 3rd	„	6
„ 4th	„	2
„ 5th	„	3
„ 7th	„	1
„ 8th	„	2
„ 11th	„	1

In four cases antitoxin was injected before admission; this was in connection with cases admitted on the 3rd, 4th, 5th, and 7th days. The case admitted on the 7th day had received antitoxin 2 days previously, but this was too late to prevent death which occurred 6 hours after removal to Hospital.

The cases which were admitted on the 8th and 11th days were mild in character and in consequence did not prove fatal, although antitoxin was injected late in the disease.

There were heart complications in connection with several of the cases where antitoxin was injected late, and these patients only recovered under very careful nursing.

TYPHOID FEVER.

Bronchitis was present in two of the cases; there were no other complications.

Tables shewing the mortality per cent. of cases treated in the City Isolation Hospital since 1893 are given on page 41, Annual Report for 1909.

I have worked out the cost per head for patients and staff in regard to food for the year ending December 31st, 1910, this amounts to 8s. 5½d., which is very reasonable. The cost of maintenance of the nursing staff is always greater in proportion in connection with a Hospital containing a small number of patients, compared with a larger institution; the same applies to the cost of lighting and fuel.

ISOLATION HOSPITAL, 1910.

DISEASE.	Patients remaining in Hospital on January 1st, 1910.			Patients Admitted and Discharged in 1910.			Patients remaining in Hospital on January 1st, 1911.			Total Number Discharged.	Average Days in Hospital.	Total Deaths.	Average Days in Hospital.
	Total	Recovered	Died	Total	Recovered	Died	Total	Recovered	Died				
Scarlet Fever	14†	14	..	3	3	..	14	40.4	..	..
Diphtheria	18	17	1	3	3	..	17	49.4	1	1 (6 hours)
Enteric Fever	3	3	..	..	..	..	3	44.6	..	..
Other Diseases	1	1	..	..	..	..	1	15	..	..
Totals	36	35	1	6	6	..	35	44.4	1	1 (6 hours)

† One of these cases was also complicated by Diphtheria.

‡ Including those admitted in 1909 and discharged in 1910.

DISINFECTION.

The following are particulars in regard to disinfection of houses and bedding with the exception of phthisis, particulars of which are given on page 32.

<i>Disinfection.</i>	<i>Houses.*</i>	<i>Bedding.</i>
After Scarlet Fever	18	17
„ Diphtheria	25	23
„ Typhoid Fever	9	12
„ Erysipelas	2	2
„ Other Diseases	5	†6
	—	—
Total	59	60
	—	—

* Including 3 Wards at the General Hospital.

† „ 1 lot of verminous bedding.

The whole of the bedding and the following articles were disinfected by steam :—

- 82 Articles of clothing.
- 20 Rugs and Carpets.
- 1 pair of Curtains.
- 10 Towels.
- 6 Cushions.
- 38 Miscellaneous articles.

The rooms were disinfected with formalin vapour.

SMALL POX.

There were no cases of this disease notified in the City during the year. In my Annual Report for 1908 on pages 46 and 47 I referred to the cases which had occurred during the last 30 years.

I am indebted to Mr. R. Moore, Clerk to the Guardians, for the tables which follow in regard to vaccination. It will be seen that the number of so-called “conscientious” objections has unfortunately increased. During 1907 there were 28 objections, 42 in 1908, and 116 during 1909; for the first six months of 1910 there were 74 objections so that the number is increasing each year.

It is only by vaccination and re-vaccination that a community can protect itself from Small-pox, and I hope that the epidemic that occurred in Gloucester in 1896 will serve as a warning to those mothers in Hereford who are foolish enough not to give their babies the protection which vaccination provides.

VACCINATION.

PERIOD.	No. of Births Registered.	Successfully Vaccinated.	Insusceptible to Vaccination.	Had Smallpox.	Number in respect of whom Certificates of Conscientious Objection have been received.	Died Unvaccinated.	Postponement by Medical Certificate.	Removals of which Vaccination Officer was apprised.	Unknown Removals. Cases not found.	Unaccounted for.
Year ending Dec. 31. 1909	488	273	1	0	116	38	28	10	14	8
Jan. 1st to June 30, 1910	236	95	1	0	74	25	24	4	6	7

PHTHISIS.

Twenty deaths occurred from this disease during the year of 13 males and 7 females.

The ages were as follows :—

Years	10-15		20-25		25-35		35-45		45-55		55-65	
	M	F	M	F	M	F	M	F	M	F	M	F
Number	0	1	1	0	4	4	2	1	3	0	3	1

There were 14 deaths in Ledbury, 5 in Leominster and 1 in Monmouth Ward; five deaths occurred in the Workhouse.

The rate per 1,000 of the population for the year 1910 was .88, compared with 1.15 for the previous 10 years. On page 46 Annual Report for 1909 a table is given shewing the death rates per 1,000 from Phthisis for the City and England and Wales since 1876.

NOTIFICATIONS.

Fifteen Poor law cases were notified and 10 cases voluntarily during the year; two of the Poor-law cases had previously been notified voluntarily.

One case was notified from the Herefordshire General Hospital.

A summary of the Public Health (Tuberculosis) Regulations, 1908, is given on pages 60 and 61, Annual Report for 1909.

Article 5.—Under this Article sixteen cases were notified by the District Medical Officer and of these 8 were in the Workhouse (Two cases were notified twice).

Article 6.—Seven cases were notified by the Superintending Officer of the Workhouse.

Article 7.—Two were notified by the Relieving Officer. (One had previously been notified voluntarily).

Eight of the Poor law cases were treated for a time in the Workhouse, and 4 afterwards died in this Institution.

During the year I made enquires in regard to 15 notifications and 3 deaths (1 of a male aged 53, and 2 of females aged 32, and 43 years). The ages of the notified cases were as follows :—

Males 8, 19, 20, 25, 27, 33, 34, 44, 45, 53, and 60.
Females 25, 28, 28, and 34.

Seven of the notified cases died during the year, and of these two were voluntary notifications (one afterwards as a Poor law case) and five Poor law cases.

DURATION OF ILLNESS.—The following are particulars in regard to the notified cases :—

In 2 cases the illness lasted some months			
„ 1 case	„	4	„
„ 2 cases	„	5	„
„ 3 cases	„	6	„
„ 1 case	„	10	„
„ 4 cases	„	1 year	
„ 1 case	„	2 years	
„ 1	„	3	„

In regard to the three deaths the illness had extended over some months in one case, and 1½ and 4 years in the other two cases.

CONTINUED WORKING.—It is interesting to note for what period work was continued after the onset of the disease.

Three had not worked since the onset of the disease.			
For a few months 2 had continued working.			
From 1 to 2 months 3 had continued working			
„ 9 to 10 months	3	had continued working	
„ 11 to 12 months	1	„	„
„ 1 to 2 years	1	„	„
„ 3 to 4 years	1	„	„

A boy aged 8 years had not attended school since the onset of the disease. In regard to the 3 persons who had died from the disease, the male had worked for 1 year 6 months, but neither of the females had worked since the onset.

SOURCE OF INFECTION.—In the case of a male aged 25 years the disease was probably contracted from a brother.

HEREDITARY PRE-DISPOSITION.—There was a family history in 7 cases; the particulars are as follows :—

Father in one case; mother and brother in another. In other cases—mother, brother and sister; aunt (mother's side); sister and brother; two sisters; and in another case the uncle (mother's side) had died from the disease, and a brother was suffering from the disease at the time of the enquiry.

OCCUPATION.—The occupation of those persons who were notified as having Phthisis were as follows :—

Males.—Three were general labourers, two were tailors, and the occupation of the remaining 5 was as follows—painter, grocer, joiner,

cook and clerk. The two labourers sometimes got wet and were unable to change their clothes. The joiner worked in a sawmill and so would of necessity inhale dust.

Females :—Two were bottle washers, and one a washer woman.

In respect to the three persons who died, neither of the females had followed any occupation; the male had been a compositor.

PREVIOUS ILLNESSES.

A male, 20 years, had suffered from Bronchitis for some years. Another male aged 25 years had suffered from Pneumonia and Pleurisy a few years previous to the onset. In the case of a female aged 34 years there had been debility after a confinement, and another female aged 40 years had suffered from gastro-enteritis for some years. In regard to several others it was stated that they had never had good health.

SOCIAL HABITS (including cases and deaths).—Of 17 adults, 3 were total abstainers (2 males, and 1 female); 12 were said to be temperate (7 males, and 5 females) and 2 had been intemperate (both males).

SANITARY CONDITION OF THE HOUSES VISITED.

1	house	had	2	rooms		
2	houses	„	3	„		
5	„	„	4	„		
8	„	„	5	„		
1	house	„	6	„		
1	„	„	7	„		
In 1	house	there	was	1	bedroom	
„	7	houses	„	were	2	bedrooms
„	7	„	„	„	3	„
„	2	„	„	„	4	„
„	1	house	„	„	5	„

Some of the houses contained a scullery and a few a cellar.

The number of occupants including the Consumptive was as follows—

In 11	houses	there	were	5	persons	or	less
„	1	house	„	6	persons		
„	2	houses	„	7	„		
„	2	„	„	8	„		
„	2	„	„	9	„		

The average number of persons per house was 5.5.

In the houses containing 7 persons there were two and three bedrooms respectively. In the case of the 8 persons there were three and four bedrooms and in the case of the 9 persons four and three bedrooms.

Isolation of the consumptive would be a matter of difficulty in the majority of the houses.

In four instances the livingroom was damp and in two cases the bedrooms. In three of the houses the livingroom was dirty and in three the living rooms and bedrooms.

A house in Goal St. in which a woman resided for 6 years has since been condemned as unfit for habitation and recently demolished. In several of the houses minor defects were found in connection with the sanitary conveniences, but on the whole the sanitary condition of the houses was fairly good.

PREVIOUS RESIDENCE.—Six persons had contracted the disease in another house. Two persons had resided in the present house only 5 and 10 days, having previously lived in Abergavenny, and Cardiganshire; in another case a female previously resided for 1 year and 6 months in Manchester. In other cases there had been residence in Monkmoor Street, for 8 months, Catherine Street for 7 months, and Grandstand Road for 1 month.

PRECAUTIONS TAKEN.

1. AT HOME.—In ten houses an attempt was made to carry out isolation but in two cases there had been isolation only for a few months. In two cases the livingroom had been used for the purpose.

In regard to the disposal of sputum, in four cases this was received into rags and paper (generally the former) and afterwards burnt, and in other four cases direct to the fire. A vessel containing disinfectant was used in four instances and in two other cases a jar and a bucket without disinfectant. Handkerchiefs were used in several instances and these were afterwards boiled. In two cases there was said to be little or no expectoration. Pocket spit-bottles which can be used by the Consumptive when out of doors, to prevent expectoration on to the pavement, were provided in 3 cases.

2. AT WORK.—In no instances were any special precautions taken whilst at work. Pocket spit-bottles would be very useful.

DISINFECTION.—Disinfection of rooms was carried out in 18 cases, and of bedding in 8 cases; of these, 12 were Poor-law notifications and 6 voluntary.

After death the rooms in 12 and the bedding in 7 cases were disinfected. In several instances disinfection of rooms was carried out by the friends or relatives.

BACTERIOLOGICAL EXAMINATION OF SPUTUM.—Sputum was sent to the Bristol University, for examination in 22 instances and tubercle bacilli were found in 5 cases.

OTHER FORMS OF TUBERCULOSIS.

Eight deaths occurred during the year from other forms of tuberculosis than Phthisis, of 3 males, and 5 females; 4 deaths occurred in Ledbury Ward and 4 in Leominster Ward.

The rate per 1,000 of the population was .35 compared with .56 for the previous ten years.

Particulars in regard to the age periods and also the nature of the disease are given in appendix A.

ADMINISTRATIVE MEASURES AGAINST TUBERCULOSIS.

On pages 57 and 61-62 of my Annual Report for 1909 I gave an account of the measures which are being adopted in this City against Tuberculosis; I also referred to the Sanatorium treatment of suitable cases. A Conference was held between representatives of the County and City Councils in June to consider the question of the provision of a Sanatorium for the County; at this meeting a report was submitted by Dr. Gold, the County Medical Officer and myself. As the result of the Conference the County Council decided to contribute £450 a year and the Town Council £150 annually towards the maintenance of a County Sanatorium, subject to the conditions that both bodies approve of a scheme to be promoted by an outside organisation. It has since been suggested that the provision of a sanatorium would be a fitting memorial to King Edward VII. who took such an interest in the prevention of the disease. I understand that a Public Meeting is shortly to be called, at which the whole question will be discussed.

TREATMENT OF ADVANCED CASES.—I have already mentioned that eight cases of Phthisis in an advanced stage of the disease were treated in the Workhouse during the year. On May 9th I communicated with the Board of Guardians and suggested that some special provision should be made in the Workhouse for treatment of advanced cases of the disease. If it were not possible to provide separate wards for the purpose, isolation could be effected by partitioning off a portion of one of the larger rooms; either a fixed or a sliding partition could be used for the purpose. I understand

that the question of making some provision in regard to isolation is shortly to be taken into consideration.

TUBERCULOSIS IN COWS.

On pages 73-77, of my Annual Report for 1909 I gave an account of the methods which are being adopted in this country and on the Continent in connection with the eradication of Tuberculosis in cows. No action has yet been taken by your Council in regard to the examination of dairy cows in the City by a veterinary surgeon. If such an inspection were made it would be possible to take steps to deal with cases of open tuberculosis of the respiratory organs, alimentary canal, udder, and urino-genital organs; and in doubtful cases the tuberculin test could be used. I would suggest that a start be made by making arrangements for the examination periodically of the cows whose milk is supplied to the Isolation Hospital. Unfortunately about half the milk consumed in this town comes from outside districts and it is very probable that milk containing sediment or tubercle bacilli is being distributed at times in the City. There is a chemical standard in regard to milk, but it is of equal importance that no dirty or tuberculous milk should be allowed to be sold.

CANCER.

There were altogether 20 deaths from cancer (of 6 males and 14 females) and 4 deaths (of females) from other malignant disease during the year, compared with 29 cases of cancer and malignant disease during 1909. Particulars in regard to age periods are given in table A, Appendix. Four deaths occurred in the General Hospital and 1 in the Workhouse. The death-rate for the year was 1.06 compared with 1.00 for the previous 10 years. The majority of the deaths occurred over the age of 45 years.

The parts affected are shewn in the following table:—

<i>Part.</i>	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Breast	0	2	2
Reproductive Organs	0	4	4
Oesophagus	1	0	1
Stomach	1	2	3
Liver	0	3	3
Pancreas	0	1	1
Kidney	0	1	1
Face	1	1	2
Spinal Cord	1	0	1
Urinary Organs	2	0	2
TOTAL	6	14	20

RESPIRATORY DISEASE.

During the year there were 18 deaths from Bronchitis, 17 from Pneumonia and 1 from Asthma. The respiratory rate was 1.58 compared with 2.26 for the previous 10 years and 1.91 for 1909. Particulars in regard to ages are given in Table A, Appendix.

The majority of deaths from Bronchitis occurred among old people (two thirds) and with one exception the remaining deaths were among children under the age of 5 years. There were 4 deaths under the age of 1 year, at a period of life when infants are particularly susceptible to chest complaints.

In regard to Pneumonia 12 deaths occurred under the age of 25 years, and 5 under the age of 1 year.

Particulars in regard to the respiratory rate since 1876 are given in the Annual Report for 1909, page 71.

ALCOHOLISM.

A male aged 44 years died from Alcoholism and Delirium Tremens. The death of another male aged 41 years occurred from Cirrhosis of the Liver, and of a male aged 58 years from Alcoholic Neuritis. Although no other deaths from Alcoholism have been registered during the year there can be no doubt that alcohol was the indirect cause of death in other cases.

OTHER CAUSES OF DEATH.

HEART DISEASE.—Forty four deaths were attributed to this disease, of which 19 occurred between the ages of 65 and 75 years and 8 between 75 and 85 years. Probably more than one third of the deaths from this disease were the result of senile decay.

OLD AGE.—Of the 38 deaths which occurred from this cause, 21 were at ages 75 to 85 and 8 persons died at ages 85 and upwards. Two males attained the age of 90 years, and two females the ages of 91 and 99 years respectively.

In Table A. Appendix, all the causes of death which were registered during the year with the various age periods are given in detail.

COWSHEDS, DAIRIES AND MILKSHOPS.

There are the names of 13 persons on the Register who keep dairies, 23 who have cowsheds, and 24 milkshops or milkstores. In addition 46 purveyors of milk are registered, of whom 17 bring in milk from outside the City.

Frequent visits were paid to milkshops, cowsheds and dairies during the year. The majority of the cowsheds were clean, and only one notice was served for breach of the regulations.

In certain cases there is room for improvement in regard to the cleanliness of the cowsheds and also the cows. Manure should be deposited as far from the cowsheds as possible and should not be stored for long periods.

COMMON LODGING HOUSES.

There were two Registered Common Lodging houses in the City at the end of the year. The following are particulars :—

<i>Date of Registration</i>	<i>Situation.</i>	<i>Accommodation.</i>
Dec. 21, 1875	7, Little Berrington St.	16 (males)
December, 1889	1 & 2, Turks' Alley	8 (4 males and 4 females).

The house No. 1 & 2 Turks' Alley was rebuilt in April, 1903, and it is expected that this house will shortly be demolished along with adjoining property in Turks' Alley, and 37, St. Owen Street. I represented Nos. 38, 39, and 41, St. Owen Street to the Housing Committee as unfit for habitation under the Housing, Town Planning etc. Act, 1909, and these houses have since been demolished.

In November proceedings were taken against the keeper of an unregistered common lodging house, and a fine of £1 and costs was imposed.

On account of hop and fruit picking in the County, it is probable that some additional common lodging house accommodation will be needed in the future.

HOUSING.

The number of houses built in each Ward during the year 1910 was as follows :—

<i>Ledbury Ward.</i>	<i>Leominster Ward.</i>	<i>Monmouth Ward.</i>
16	38	18

The number of houses erected in the town since 1900 is shown in the accompanying table for which I am indebted to the City Surveyor.

Date.	New Houses for which Plans have been approved.	Other Buildings.	New Houses completed and inspected.	Other Buildings
During the Year 1901	79	6	43	7
" " 1902	78	6	36	6
" " 1903	50	12	65	11
" " 1904	51	16	50	8
" " 1905	69	5	38	4
" " 1906	78	14	72	14
" " 1907	50	20	60	14
" " 1908	45	32	15	23
" " 1909	81	7	71	5
" " 1910	79	2	72	4

HOUSING AND TOWN PLANNING ETC. ACT, 1909.

During 1910 a considerable amount of property, much of which had been previously represented as unfit for habitation was dealt with under Section 17 of The Housing and Town Planning etc. Act, 1909. This included Nos. 3 to 10 Friars Street; 1 & 2 Cross Street; 1 to 5 Cross Court; 37 to 41 St. Owen Street and 3 to 7 Turks Alley. Nos. 38 to 42 St. Owen Street together with an adjoining house (not represented) have been demolished.

Demolition Orders have been made in regard to the houses in Friars Street, Cross Court and Cross Street.

The following houses were also demolished:—Deadbridge Cottage, Hay Road; 38 & 1 Back, and 39 to 42 St. Owen Street; 45 & 46 Gaol Street; No. 1 in 1 Court, Ross Road, and 9 & 11, Green Street.

In the following cases the houses were rendered fit without Closing Orders being made:—Nos. 2 to 4, Catherine Street; Nos. 82 to 84 Widemarsh Street; Nos. 180 to 182 Edgar Street and 3 & 4, Wall Street, in connection with which alterations were in progress at the end of 1909.

The following houses have also been rendered fit for habitation—No. 97, St. Owen Street; No. 1 Back of 97, St. Owen Street; Nos. 23 & 24, Gaol Street, and also two cottages at Tupsley Pitch. In connection with the last named, closing orders were made and the houses are being made fit for habitation.

The following houses were made reasonably fit under Section 14 & 15, H. & T. P. Act etc., 1909:—No. 34 West Street (work in progress at end of year now completed), and 109 & 110, Eign Road.

In September an Order was sent by the Local Government Board to the various Councils containing Regulations with respect to the manner in which the inspection of the District under Section 17 of H. & T. P. Act should be carried out and in regard to the records to be kept of such inspection.

Under Article I. the L.A. is to "make provision for a thorough inspection to be carried out from time to time." Under Section 3. the L.A. shall cause to be prepared by the M. O. H. or an officer designated by them but acting under his direction and supervision, a list or lists of dwelling houses the early inspection of which is in the opinion of the M.O.H. desirable. Mr. Protheroe has been appointed as the Officer under this Section.

Article II. enumerates the matters in relation to which inspection should be made, and Article III prescribes the records to be kept of each inspection.

Under Article IV the L.A. are to take into consideration the records kept in pursuance of Article III. and "shall take all such action within their powers as may be desirable in regard to any dwelling-house to which the records relate."

By Article V the M.O.H. is required to include in his Annual Report certain information and particulars in connection with the inspection and the results.

The particulars asked for under Article V., as well as other particulars of the work carried out under the Housing Acts since January, 1907, are given below; these are practically the same as those given in the Tables on pages 69 and 80 respectively of the Annual Reports for 1908 and 1909.

HOUSING OF THE WORKING CLASSES ACTS, 1890 TO 1909.

No. of Dwelling-houses inspected under and for the purposes of Section 17.	No. considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.	No. of representations made to Local Authority with a view to the making of Closing Orders.	No. of Closing Orders made.	No. of Dwelling-houses the defects in which were remedied without the making of Closing Orders.	No. of Dwelling-houses which after the making of Closing Orders were put into a fit state for human habitation	No. of Demolition Orders made.	No. of Dwelling-houses demolished.	No. of Dwelling-houses made in all respects reasonably fit for human habitation under Secs. 14 & 15.
(A) 69	(B) 64	(C) 60	40	(D) 11	(E) 4	(F) 23	(G) 12	3

- (A) 5 of these were not considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.
- (B) No statutory representation was made in respect to 4 houses, the owners agreeing to demolish.
- (C) Of these, 20 houses were dealt with without making Closing Orders.
- (D) These were represented in 1909.
- (E) These are included in the previous columns and the work was in progress at the close of the year.
- (F) 15 were not demolished at the end of the year.
- (G) Including 3 which were demolished without orders being made, and 1 which was demolished without being represented as unfit for human habitation.

Particulars of work carried out under the Housing Acts since the appointment of the Housing Acts Committee in January, 1907, to December 31st, 1910 :—

Inhabited Houses Demolished.	Uninhabited Houses Demolished.	Houses represented as unfit for habitation and awaiting demolition.	Inhabited houses closed and remaining void or used for other purposes.	Houses erected or in course of erection on or near sites of demolished houses in lieu thereof.	Houses rendered fit for human habitation.	Houses at which renovations are in progress or which are about to be renovated.
53	19	34	9	18	59	17

On November 3rd. a Local Government Board Inquiry was held in regard to the purchase by your Council of Nos. 31 to 35, Bewell Street, and a stable and loft between Nos. 31 and 32, and No. 1, Church Court. I had previously represented these houses under the Housing of the Working Classes Act, 1890, as obstructive to Nos. 2 to 9, Church Court in regard to light and ventilation. The only entrance to Church Court was a passage four feet wide between Nos. 32 and 33, Bewell Street. When these houses in Bewell Street are pulled down it will be possible to open Church Court for its full width to Bewell Street. It was pointed out at the Enquiry that Eign Street opposite All Saints' Church was only 19 feet wide (including the footpath), and that other portions of the street were only 24 feet wide.

The purchase of this property will allow of the widening of Bewell Street. The present congestion of traffic in Eign Street will be relieved by diverting a part through Bewell Street.

GARDEN CITY.—On pages 80 to 82 of the Report for 1909 I gave a short description of the Garden City. During the year 23 new houses have been built and 19 are at present in course of erection (altogether 66 houses have been erected).

The Garden City has been commented favourably upon in several Health and Municipals Journals; I append a few extracts. Under the heading of Housing in Hereford, the following comments are made in the Municipal Journal of April 22nd, 1910.—

“The reproach of somnolence that usually applies to cathedral cities would be altogether inappropriate to Hereford, which has for many years past been exceedingly active in civic affairs, and in none more beneficially so than in the provision that has been made by the Corporation for the decent housing of the poorer citizens.”

In the “Local Government Officer” of June 4th, 1910 is the following :—

“The Hereford Co-operative Housing Limited, known locally as the Hereford Garden City, is one of the first attempts, if not actually the first, yet made in a small provincial borough to improve the local housing conditions on Garden City lines. The fact that an attempt has been attended with success has demonstrated that the Hereford methods are suitable for numerous other small boroughs where the housing conditions still require improvement.”

“Public Health,” (October), which is the Journal of the Society of Medical Officers of Health, has the following :—

“The Hereford Garden City, which is now in course of development, affords an interesting example of what can be done in the way of town planning by the authority of a comparatively small district.”

An account of the Garden City was also given in “The Journal of the Royal Sanitary Institute,” and in the “Housing and Town Planning Review.”

FACTORIES AND WORKSHOPS.

In the Annual Report for 1909 I gave a list of the factories in the City; full particulars were also given of the work carried out in the various workshops. In the Report which is required by the Home Office an account of the inspections which were made during the year is given, and a list of the defects found.

The 28 Notices served requiring contraventions of the Act to be remedied had reference to the following :—

Workshops and Bakehouses requiring cleansing	19
Insanitary Waterclosets	6
Obstructed and defective drainage	2
Insanitary sinks and Lavatory basins	3
Defective Spouting	1
Absence of sufficient Ventilation to Bakehouse	1
Overcrowding of Workshop	1
Accumulations of Refuse	3

Attention was called to the following defects by H.M. Inspector of Factories :—

Workshops and Bakehouses requiring cleansing	3
Waterclosets requiring limewashing	2
Overcrowding	1
Cubic space not specified	1

Notice of occupation of 4 workshops was also given.

OUTWORKERS.

Visits were paid to premises occupied by Outworkers during the year. The rooms were on the whole clean. No cases of infectious disease (Section 109-110) occurred at any of the premises of Outworkers during the year, and only 3 notices were served in connection with the cleansing of premises under Section 108.

REPORT FOR 1910.

FACTORIES, WORKSHOPS, WORKPLACES, and HOMEWORK.

I.—INSPECTION.

Including Inspections made by Sanitary Inspector.

PREMISES.	NUMBER OF		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES (Including Factory Laundries.)	10	3	—
WORKSHOPS (Including Workshop Laundries).	147	23	—
WORKPLACES	35	2	—
TOTAL	192	28	—

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	15	12	—	—
Want of ventilation	1	1	—	—
Overcrowding	1	1	—	—
Want of drainage of floors ..	—	—	—	—
Other nuisances	14	14	—	—
†Sanitary accommodation { insufficient	—	—	—	—
{ unsuitable or defective	7	7	—	—
{ not separate for sexes	—	—	—	—
 <i>Offences under the Factory and Workshop Act :</i>				
Illegal occupation of underground bakehouse (S. 101)	—	—	—	—
Breach of special sanitary re- quirements for bakehouses (SS. 97 to 100)	4	4	—	—
Other offences	—	—	—	—
Total	42	39	—	—

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

† Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and the standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced as laid down in "The Sanitary Accommodation Order of 4th February, 1903, No. 89."

3.—HOME WORK.

OUTWORKERS' LISTS, SECTION 107.

NATURE OF WORK.	Lists received from Employers.						Addresses of Outworkers.		Notices served on Occupiers as to keeping or sending lists.	Inspections of workers' premises
	Twice in the year.			Once in the year.			Received from other Councils.	Forwarded to other Councils.		
	Lists. †	Outworkers. †		Lists.	Outworkers					
		Con- tr'c'rs.	Work men.		Con- tr'c'rs.	Work- men.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Wearing Apparel— (1) making, &c. (2) cleaning and washing	36	—	103	6	—	6	1	—	88	42
Lace, lace curtains and nets										
Artificial flowers										
Nets, other than wire nets										
Tents										
Sacks	2	—	4	—	—	—	—	—	5	1
Furniture and upholstery	4	—	5	1	—	1	—	—	11	2
Total	42	—	112	7	—	1	1	—	104	45

† The figures given in columns 2, 3 and 4 are the *total* number of lists (received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year. (1)	Number (2)
Workshops, Bakehouses	25
„ Domestic	11
„ Laundries	3
„ Miscellaneous	136
Workplaces	42
Total Number of Workshops on Register	217

5.—OTHER MATTERS.

Class (1)	Number (2)
Matters Notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	5
Other	5
Underground Bakehouses (s. 101):—	2
Certificates granted during the year	—
In use at the end of the year	2

SLAUGHTER HOUSES.

In the Annual Report for 1908, page 78, a description was given of the Public Abattoir and Lairages. There are only two private slaughter-houses in the City; these were visited periodically, at time of slaughtering and on other occasions. No notices were necessary in regard to contravention of the Byelaws. At the Public Abattoir the manager, A. England, who has had special experience in butchering is present when the slaughtering is carried on and directs the attention of the Sanitary Inspector or myself to any diseased or unsound condition of the carcasses. Last year I inspected the majority of the diseased carcasses; in any case of doubt a veterinary surgeon is called in.

The following table shows the number of animals slaughtered in the public abattoir each month during the year.

1910	Beeves	Calves.	Sheep	Lambs	Pigs (Pork)	Pigs (Bacon)	Total
January	117	13	578	..	161	66	935
February	117	14	472	..	163	45	811
March	109	57	498	31	112	33	840
April	151	66	534	114	95	30	990
May	106	65	487	216	27	15	916
June	103	57	447	297	13	..	917
July	124	54	517	417	17	..	1229
August	100	35	409	317	15	..	876
September	132	24	573	324	87	45	1185
October	116	12	709	..	121	76	1034
November.....	103	10	544	..	139	84	880
December	153	3	570	..	191	105	1022
Total	1431	410	6338	1716	1141	499	11535

Compared with last year there was a decrease in the number of animals slaughtered as follows:—

Beeves 20; Calves 15; Sheep 134; Lambs 50; Pigs (Pork) 250; Pigs (Bacon) 86.

The total number of animals slaughtered was 11,535 compared with an average 9,745 for the ten years 1900 to 1909.

DISEASED CARCASSES.—The following diseased conditions, etc. were found in animals slaughtered at the Public Abattoir during the year:—

Sheep.

- (1) Tuberculosis of lungs and lymphatic glands.
- (2) Tuberculosis of left lung and pleura.

- (3) Enteritis.
- (4) Septic Metritis.
- (5) Pneumonia and Enteritis.
- (6) Ulcerative inflammation of the intestines, and also pleurisy.
- (7 & 8) Flukes and Abscesses of Liver.

Pigs.

- (1) Pneumonia, Gastro-Enteritis.
- (2 & 3) Fatty infiltration and degeneration of internal organs.
In one case also parasitic disease of liver.

Cows.

- (1) Heart disease.
- (2) Malignant disease of the left eyeball.
- (3) Cystic condition of the liver and lungs.
- (4) Abscesses of liver.

Either a portion or the whole of the carcass was surrendered according to the condition found ; in all about 12 cwts. and 73 lbs. were burnt in the destructor.

The small amount of disease, including Tuberculosis, amongst the animals slaughtered is very satisfactory.

OTHER UNSOUND FOOD.—A box containing 17 mackerel and 6 herrings, and on another occasion 70 lbs. of codfish and whiting were voluntarily surrendered on account of decomposition and destroyed.

Four pieces of meat were also surrendered and destroyed.

On account of several eggs which were sold in the Market being found in a state of decomposition and others being suspicious, the whole of the eggs (37 in number) were voluntarily surrendered and destroyed.

On July 9th, I examined 17 rabbits, 5 of which had been sold and the remainder of which were exposed for sale, I found all were quite unsound and unfit for food. The rabbits were seized and brought before a magistrate who ordered them to be destroyed. Proceedings were taken in the Magistrates' Court and the Defendant was fined £20 and costs, or in default three calendar months hard labour.

SALE OF FOOD AND DRUGS ACTS, 1875 to 1907.

During the year 46 samples were taken by Mr. Protheroe as Inspector under the Acts, and the results have been given in the quarterly reports of the City Analyst.

The following table shows the number and nature of Articles purchased for analysis during the year 1910, and the result of the analyses :—

ARTICLES.	Number of Samples Purchased.	Number Genuine.	Number Adulterated.
Milk	7	7	..
Butter	10	10	..
Cheese	10	10	..
Lard	5	5	..
Rice	8	8	..
Ground Rice	2	2	..
Sago	1	1	..
Mustard	1	1	..
Pepper	1	1	..
Vinegar	1	1	..
	46	46	..

MILK.—Of the 7 samples of milk, 3 were certified to be “genuine and of particularly good quality,” 3 as “genuine and of good quality,” and 1 as “genuine.”

RICE.—Of the 8 samples of Rice, 4 were certified as being faced with a small amount of mineral matter but within the limit suggested in the Report of the Food Inspector to the Local Government Board.

The absence of adulteration in connection with the articles examined is very satisfactory.

OFFENSIVE TRADES.

The following are the offensive trades in this town :—

Gut-scraping business, 1; hide and skin receiving depots, 2; tripe boiling places, 7.

Frequent visits have been made to these places during the year, and particular attention was paid in regard to cleanliness and proper storage and removal of trade refuse. The condition of the premises was on the whole satisfactory. Some of the buildings in which tripe is made could be improved, and others might be replaced with advantage. It is important to have smooth surfaces which can be washed down readily.

OTHER PREMISES.

Visits were made to fried-fish shops and ice-cream places during the year, and the sanitary conditions were satisfactory. Marine Stores and other premises were also inspected.

WATER SUPPLY.

During the year reports were presented by the City Surveyor to the Waterworks Committee on the condition and sufficiency of the water supply and filtration, and suggested improvements therewith; I also reported on the preliminary treatment and filtration of the water from chemical and bacteriological points of view.

Mr. Parker mentions in his report that the first installation was opened in 1856 from plans of the late Mr. T. Curley. In 1884 the water tower and high-pressure service was completed from plans by the late Mr. Cole, City Surveyor, and in 1901 three of Messrs. Mather & Platts' compound gravity mechanical filters were installed.

The schemes submitted by Mr. Parker, and fully considered by the Waterworks Committee comprised a supply from the Birmingham main at Ludlow and the construction of a storage reservoir and filter beds in the meadows adjoining the river. The scheme which the Committee finally recommended to the Council for adoption was the provision of two extra sand filters adjoining the present beds, which will when constructed treble the present filtering capacity and double the present area of the filters even when one of the beds is being cleaned. The two additional filter beds will cover an area of 20,000 sq. feet each and by this means there will be capacity for filtering 640,000 gallons exactly in 16 hours through each bed or a total filtering capacity of 1,280,000 in 16 hours during the time any one bed is being cleaned. Concrete will be largely used in the construction of the beds. It was pointed out that larger storage capacity could be provided in the future if found necessary.

On account of floods it was considered advisable to provide additional means for getting rid of the finer suspended matter during these periods. Pumping operations are stopped for as long a period as possible, but this is limited to the capacity of the storage reservoir, which is about $4\frac{1}{2}$ million gallons; sometimes the floods continue off and on for several weeks. It was therefore considered advisable by the Waterworks Committee to have the three mechanical filters dismantled and an apparatus provided for adding coagulant to the raw water in the rising main. The alterations to the mechanical filters were carried out in September, and during November and December by means of the addition of alumino-ferric in the proportion of a half to one grain per gallon, it was possible to remove practically the whole of the suspended matter. There can be no doubt that this latter will be very useful at times for preliminary clarification of the water before it passes to the sand filter beds.

A Local Government Board Inquiry, for permission by your Council to borrow £7000 for the provision of the additional sand filter beds, was held on November 4th, 1910; the permission of the Board has since been obtained for the loan, and tenders for the same are now recommended for acceptance.

In April at the request of the Waterworks Committee a sample of river water was sent to Dr. Bostock Hill in order to ascertain whether such water at the Intake had any plumbo-solvent action. It was found that the alkalinity was equal to 4 parts of carbonate of lime per 100,000 parts of water. As the results of experiments carried out for a period of 7 days Dr. Hill concluded that the plumbo-solvent action for all practicable purposes may be considered nil. On previous occasions analyses have always shown the water to alkaline; as the water passes over the sand filter beds this will be slightly increased on account of the presence of calcium carbonate in the sand.

Water consumed during the year	445,354,559 gallons.
Amount used for trade purposes	92,707,000 „
(As ascertained by meter).	

It will be seen that 352,647,559 gallons were used for municipal purposes and domestic use, equal to 42 gallons per head daily. This is a very liberal supply, as 25 to 30 gallons per head is considered an average amount for all purposes in Great Britain.

DISTRICTS SUPPLIED BY WELL WATER.—A certain number of houses obtain their water supply from wells, the particulars are as follows :—

	<i>Houses.</i>	<i>Wells.</i>
Hunderton & District	31	18
Putson & Bullingham	21	12
Grafton	7	6
Westfields	17	11
Whitecross, Huntington & Kings Acre ..	19	13
Canon Moor	4	2
Breinton	2	2
Tupsley, Old Eign Hill, Hampton Park & District	26	13
Aylestone Hill	10	6
Holmer	14	11
Totals.	151	94

WATER ANALYSIS.—During the year I made 16 chemical analyses of well water; of these three were taken in connection with one house, and two from the well supplying another house. In four cases on account of the water being contaminated the town water supply was laid on, and twelve houses connected; in one case

the water was found to be contaminated and the matter is now under consideration. In five instances no further action was necessary.

POLLUTION OF RIVERS AND STREAMS.—During the year certain work was carried out in order to prevent pollution of the River Wye to which attention had been drawn; in one case the drainage from a house, which formerly passed untreated into the river Wye, now passes through a tank and filter bed; in another instance, a privy, the contents of which passed into a stream, which flowed into the river Wye, has since been converted into an earth closet. In September I forwarded a report to the County Council giving particulars of the pollution of the River Wye at Hay, and at other points on the way down to the Intake. It is hoped that shortly arrangements will be made at Hay for the treatment of the sewage, and at a meeting held in January, 1911, the County Council empowered the Town Council to use their name in any proceedings they may think necessary to take in regard to the pollution of the river Wye.

YAZOR BROOK.—Periodical inspections have been made during the year either by the Sanitary Inspector or myself. I understand that alterations have been made in connection with the filtering material of the beds, and in future that greater supervision will be exercised over the system of sewage disposal.

SCAVENGING.

At a meeting of the Town Council held in January, 1910, it was decided on the recommendation of the Roads Committee, that in future owners should be required to provide in respect of each house (under Section 36, P.H.A. 1875) an ash pit, but that an intimation should be sent that the provision of a regulation ash-bin with a proper covering would be deemed by the Council a suitable appliance under the Act. This notice is now being sent as soon as plans for new houses have been approved by the Roads Committee. It was resolved in the February meeting that the Council require occupiers of private houses and business premises to provide suitable receptacles; a good many still in use are not suitable for the purposes. A galvanized iron bin with a proper cover can be obtained for a few shillings.

During the year 36 per cent. of the refuse collected was taken to the Distructor in carts and burnt; I have been furnished with the following particulars by the City Surveyor:—

	<i>Tons.</i>
Refuse burnt	3982
Refuse tipped	7009
	<hr/>
Total	10,991
	<hr/>

In addition to house refuse, a large amount of animal and vegetable waste from shops of butchers, greengrocers, and fishmongers and also from slaughter-houses, was conveyed to the Destructor to be burnt.

SEWAGE DISPOSAL.

In the Annual Report for 1908, pages 86 & 87, and in the Report for 1909, page 115, I gave an account of the sewerage and methods of sewage disposal in this town.

OTHER SYSTEMS OF EXCREMENTAL DISPOSAL.—In the Westfield district 60 houses are connected to the sewerage system and 14 to cesspools, and there still remain 48 earth closets and 9 privies in this district. At Hunderton there are still privies, earth closets and cesspools, and there are outlying parts of the town such as Holmer, Tupsley, and beyond Aylestone Hill, which are not connected with the sewerage system, being outside the present drainage area.

During the year the question of the sewerage of the area bounded by Wellington Place, Hampton Green, and Old Eign Hill was considered by the Sewers Committee. It was pointed out that of the 36 houses included in this area, 27 derive their water supply from shallow wells. Fifteen of the houses are connected to cesspools and 21 have no proper system of surface drainage; the closet accommodation consists of 13 privies, 7 pails, and 5 waterclosets. At the meeting of the Town Council on December 6th, it was decided on the recommendation of the Sewers Committee to sewer the area referred to, and when this is provided it will be possible to do away with cesspools; in addition it will be necessary for owners to provide suitable sanitary conveniences and a proper system of surface drainage.

NUISANCES, INCLUDING DRAINAGE DEFECTS.

WORK DONE THROUGH THE SANITARY INSPECTOR.

DRAINAGE—

Obstructed drains opened and cleansed	68
Defective drainage repaired or relaid	182
Houses with insufficient drainage, extra provided	4
Houses connected to public sewer	4
Glazed stoneware gullies fixed	183
Drains removed from inside or underneath houses	11
Sewer interceptors fixed	23
Disconnecting and inspection chambers constructed	69
Inspection chambers repaired	30
Ventilating shafts fixed or repaired	64
Cesspools cleansed out or repaired	9
Cesspools abolished	1

WATER CLOSETS, PRIVIES, AND URINALS—

Obstructed w.c.'s opened and cleansed	33
Dilapidated w.c.'s repaired or rebuilt	92
New " Washdown " basins fixed	35
Pedestal basins fixed	48
Soil-pipes removed from inside houses	3
Soil-pipes repaired or renewed	19
Ventilation provided to w.c. compartments	4
Insufficient accommodation, extra w.c.'s, or earth-closets erected	6
Water supply provided to w.c.'s	9
Flushing apparatus repaired or new provided	75
Filthy closets limewashed	59
Privies converted into water or earth-closets	7
Earth closets converted into water-closets	1
Privies cleaned out and abolished	11
Urinals constructed	1
Urinals repaired and limewashed	3

DWELLING HOUSES, etc.—

Filthy and dilapidated houses cleansed and repaired	93
Houses partly or entirely demolished	12
Houses closed as unfit for habitation	40
Pantries or food cupboards provided	3
Houses stripped and cleansed after inspection	5
Schools disinfected or cleansed	1
Roofs repaired	72
Chimneys raised or repaired	32
Floors relaid or repaired	70
Dangerous stairs and defective windows repaired	37
Dangerous cellar windows repaired	1
Cases of overcrowding abated	2
Dilapidated wash-houses repaired or rebuilt	39
Filthy wash-houses limewashed	32
Filthy cellars or passages limewashed	5
Stagnant water removed from cellars	12
Yards and passages paved or paving relaid	83
Water supply provided to houses	14
Dangerous disused wells filled up	2
Polluted wells closed	3
Wells cleaned out or repaired	2

SINKS, WASTE-PIPES, AND SPOUTING—

Dilapidated sinks repaired	43
New glazed stoneware sinks fixed	30
Waste-pipes provided to sinks	62
Waste and rain-water pipes disconnected from drains	117
Spouting repaired or provided	143

KEEPING OF ANIMALS AND MANURE—

Stables paved and drained	5
Floors of cowsheds relaid	4
Cowsheds repaired	4
Light and ventilation provided to cowsheds	—
Water supply laid on to cowsheds	—
Nuisances from animals improperly kept, abated	12
Accumulation of manure and refuse removed	41
Manure pits repaired or provided	1

MISCELLANEOUS—

Dairies and cowsheds limewashed on notice	44
Bakehouses	4
Bakehouses repaired	1
Slaughter-houses	—
Workshops	12
Common lodging-houses	—
Overcrowding of workshops, abated	1
Workshops ventilated	1
Bakehouse floors scraped and cleansed	—
Miscellaneous nuisances abated	88

An account of drainage and other work necessary to abate nuisances, which has been carried out under the supervision of the Sanitary Inspector, is shown in detail in the preceding table. The following table shows the number of notices served and those complied with during the year :—

Statute or Bye-law.	Notices served.		Complied with.
	Pre-liminary.	Statutory.	
Public Health Acts	556	14	483
Factory and Workshop Act	28		25
Housing of the Working Classes Acts	7	1	5
Infectious Disease (Prevention) Act	—	4	4
Regulations under Dairies, Cowsheds, and Milkshops Order	44	—	44
City Byelaws	6	—	6
Total	641	19	567

There were 93 notices still not complied with at the end of 1910.

In addition to the above notices, 254 letters were written by the Inspector and 129 reports made to the City Surveyor.

There were 219 complaints investigated and 77 drains tested (by water 50; smoke 23 and other 4). It will be seen by the table on page 52 that a large number of visits were paid to bake-

houses, workshops etc. During the year D. H. Pickard (who obtained the certificate of the Royal Sanitary Institute in May) and G. H. Williams, in addition to carrying out the clerical work of the Health Department, have also assisted in outdoor sanitary work (the latter since July). Particulars of the visits are as follows :

	<i>S. Protheroe.</i>	<i>D. H. Pickard & G. H. Williams</i>
Nuisances	887	401
Work in progress	722	19
House to House Inspection	121	—
Housing Acts	234	38
Infectious Disease	79	20
Workshops and Workplaces	39	100
Bakehouses	12	31
Common Lodging Houses	15	5
Dairies, Cowsheds and Milkshops	35	72
Slaughterhouses	97	1
Stables	33	28
Offensive Trades	11	—
Miscellaneous	116	29
	<hr/>	<hr/>
Total	2401	744
	<hr/>	<hr/>

It is satisfactory to note that in only three cases were legal proceedings necessary :—

(1) Proceedings were taken in June on account of failure to comply with notice served to abate a nuisance arising from the absence of paving of yards ; in this case dampness of the house walls was caused. The case was adjourned on defendant agreeing to comply with notice, and finally withdrawn, defendant undertaking to pay costs.

(2) & (3) A hawker was summoned for exposing for sale twelve rabbits and selling 5 rabbits which were unsound and unfit for the food of man. A fine of £10 and costs or 6 weeks hard labour was imposed in each case.

In company with the Sanitary Inspector I visited the whole of the caravans used for habitation at the time of the May Fair, the sleeping and living-rooms were on the whole satisfactory, and no cases of infectious disease were detected.

HOUSE TO HOUSE INSPECTION.

Systematic inspections in connection with the following houses have been made during the year :—

- Nos. 1 to 42, Bryngwyn Terrace, Barrs Court Road,
Bryngwyn House, and 1, 2 & 3, Bryngwyn Bank.
- 1 to 14, Barrs Court Place, Barrs Court Road.
- 1 to 12, Brighton Terrace, ”
- 1 to 4, St. James' Terrace, Maylord Street.
- 1 to 15, Paradise Buildings, Grandstand Road.
- 1 to 4, Hunt's Cottages, Eign Street.
- 2 to 5, Whitefriars Street.
- 2 to 12, Mostyn Street.
- 41 to 48, Newmarket Street.

Particulars in regard to the Adoptive Acts in this City are given on page 122, Annual Report for 1909.

CITY OF HEREFORD.

THIRD ANNUAL REPORT to the Education Committee.

To the Chairman and Members of the Education Committee,
City of Hereford.

LADIES AND GENTLEMEN,

I have the honour to submit for your consideration a Report for the year 1910, on the Sanitary condition of the Elementary Schools of the town and the Medical Inspection of school children.

I have proceeded on the lines indicated by the Board of Education in Circular 596.

SANITARY CONDITION OF THE SCHOOLS.

(a) *“General review of the hygienic conditions prevalent in the Schools in the area of the Local Education Authority in respect of such matters as surroundings, ventilation, lighting, warming, equipment and sanitation, including observations on the type and condition of sanitary conveniences and lavatories, water supply for washing and drinking purposes, the cleanliness of schoolrooms and cloakrooms, arrangements for drying children’s cloaks and boots, and the relation of the general arrangements of the school with the health of the children.”*

In 1909 I submitted reports on St. Martin’s and Scudamore Schools. During last year I completed reports on the remaining schools, and in the table on page 61 I have included a short summary of some of the conditions found.

SURROUNDINGS.—The surroundings of the majority of the schools are good, and this especially applies to Holmer and Tupsley Schools. On the other hand St. Peter’s Infants’ School is shut in by other buildings.

The Blue Coat Boys’ School has been rebuilt, and the only portion of the main building remaining is the front portion in Blue School Street, which comprises two classrooms and a portion of the central hall.

The school buildings are on the whole in fairly good condition ; they are one storey high with the exception of All Saints' School and St. John's (two storeys). Tupsley and a large portion of All Saints' School are constructed of stone, the remaining schools are of brick. The majority of the Schools are on a gravel sub-soil. Some of the rooms in Holmer Mixed, All Saints' (one), St. James' (one), St. Martin's (all but one room) and Tupsley (all the rooms) are open to the roof. On the whole this arrangement makes heating more difficult ; efficient ventilation can be provided in rooms the height of which is not more than 14 to 18 feet high ; on account of rafters and ledges, dust tends to collect and the rooms are more difficult to keep clean. In several instances attention was drawn to dampness, defective flooring, etc.

The following schools have a central hall :—Blue Coat Boys' and Girls', Holmer Infants', St. Owen's, St. Peter's Council, and All Saints' (large classroom used for the purpose).

VENTILATION.—In my report for 1909 on page 132 I gave an account of the lighting and ventilation of the main classroom of Scudamore Boys' School, and on account of the position of the room I suggested that it should be used as a central hall only. I reported in regard to St. Peter's Infants' School that on account of the surrounding buildings I did not think it would be practicable to provide the adequate light and ventilation which were desirable.

In all the schools natural methods of ventilation—chiefly windows—are relied upon. Generally the upper panes of the windows are made to open on the hopper principle. In some of the schools casement and swivel windows are also made use of. In St. Owen's Council, St. Peter's Council and Scudamore Infants' Schools there are sash and hopper windows ; the hopper being placed above the sash. In Holmer Infants' reliance is placed on upper and lower hopper windows, whilst in the Blue Coat Schools generally the middle portion of the window opens as a sash, and there are hoppers above and below ; in the latter schools there are also circular swivel windows.

General remarks on ventilation will be found on page 64.

In the following schools additional window ventilation is necessary.

ALL SAINTS'.—Additional hopper and swivel windows particularly in the eastern classroom on ground floor.

HOLMER MIXED.—Additional hopper windows needed (some of the windows open as casement and others on the hopper principle).

ROMAN CATHOLIC MIXED SCHOOL.—This is by means of upper swivel windows, and it was suggested that additional ventilation should be provided by making some of the lower panes to open on

the hopper and others on the swivel principle. Since my report hopper windows have been provided and the ventilation is now satisfactory.

ST. JAMES' INFANTS'.—Although this is a comparatively modern school only the upper panes of the windows open on the hopper principle. Some of the upper panes should open on the swivel principle, and some of the lower panes alternately as hopper or swivel (Casement windows could be substituted for the latter).

ST. JOHN'S SCHOOL.—Additional window ventilation is needed in the upper classroom.

Additional window ventilation is also necessary in Tupsley and St. Martin's Schools, also Scudamore Boys' and Girls' Schools.

In connection with the following schools Tobin's tubes are in use as inlet ventilators :—Blue Coat Boys', Blue Coat Girls', Holmer Infants', St. John's, St. Martin's, St. Peter's Girls', Scudamore Boys', Girls', Infants' and St. Owen's Council; in Scudamore Infants' and St. James' School Sherringham valve openings are also provided for the purpose. In several of the schools there are tubes leading to the ground level, and in St. John's School there is a row of such tubes in the upper and lower large classrooms. In the majority of cases there is a fixed grating inside, and on this account it is impossible to clean them out. For further remarks see page 64.

In eight schools either Boyle's or other ventilators on the same principle are used as outlets. In the remaining schools there are louvred openings, in some cases usually at the gable end of the building, and in other cases, where there is a ceiling and there are no special outlets, reliance is placed on window ventilation.

In several schools there are gratings in the upper part of the walls.

LIGHTING.—I have already referred to the lighting in connection with St. Peter's Infants' and Scudamore Boys' and Girls' Schools. At Tupsley School some of the windows are formed of diamond-shaped panes, and a portion of some of the windows in Holmer Mixed School are formed of coloured glass ; it would be an advantage if plain glass were substituted. In Tupsley School there was some obstruction to the lighting of the main classroom through trees ; these have since been cut down.

Some of the window sills are too high, this applies especially to the main classroom in Scudamore Boys' School and in a lesser degree to St. Peter's Council School.

Electric light is provided in the Blue Coat Boys' and Girls' Schools, and oil lamps in Tupsley School. In the remaining schools incandescent lights are provided.

HEATING.—Particulars are given in the table. Where pipes and radiators are in use, the low-pressure hot water system has been adopted. Improvement is needed in the following schools:—All Saints', Scudamore Schools, St. Martin's, St. John's, Holmer Mixed and Tupsley.

Some of the morning temperatures during the Winter months were too low and this applies particularly to St. Martin's School.

For further remarks see page 64.

Blinds are provided in some of the schools. It would be an advantage if these were provided in connection with the large upper room in St. John's School.

CLOAKROOMS.—On the whole the lighting and ventilation is very fair. There is insufficient lighting in one of the cloakrooms of Tupsley School, and in St. Peter's Infants'. The accommodation is insufficient in connection with the Boys' and Infants' cloakrooms in St. Martin's School, and some rearrangement is also necessary in Holmer Mixed School. When the alterations are completed at Scudamore Boys' School the porch which is used as a cloakroom will be able to be dispensed with; one of the cloakrooms in the Scudamore Girls' School is a mere passage, with insufficient lighting and ventilation.

In the majority of cases the pegs were arranged in not more than three rows, and there was at least a foot between pegs and rows. In Tupsley and St. Martin's Schools the pegs were unnumbered, and in the former school not alternate.

In a few schools umbrella stands are provided. It will be seen that in the majority of the cloakrooms on account of absence of heating there are no arrangements for drying children's cloaks and boots.

The cloakrooms of the following schools are heated by pipes and radiators:—Blue Coat, Holmer Infants', St. Owen's, St. Peter's Council. There is a fireplace in the cloakroom at All Saint's School, and in the girls' cloakroom at St. Martin's School. The girls' and infants' cloakrooms at the Roman Catholic Schools are heated by stoves.

EQUIPMENT.—In the majority of schools the old fashioned desks and seats were in use at the time the reports were made, the exceptions being, Blue Coat Boys', Blue Coat Girls', St. Owen's

Council, St. Peter's Girls', St. Peter's Infants' and Holmer Infants'. Only a few desks of the dual type were in use in the following schools :—All Saints', Scudamore Boys', and Roman Catholic.

In each report I have mentioned the importance of substituting dual desks for the old fashioned type and this matter has also been mentioned by H.M. Inspector. Each school will shortly be provided with dual desks. In some of the schools there are too many maps and pictures ; there should only be a moderate number as these tend to collect dust. In the majority of the schools each child has its own box and pencils.

CLEANLINESS.—The floors are now swept every evening, saw-dust soaked with disinfectant having been first scattered over the floor. Usually each classroom is washed every three weeks. Mats are provided in connection with each school.

LAVATORY BASINS.—Particulars are given in the table on page 61. It has been suggested that lavatory basins should be replaced at Holmer School, and that additional basins should be provided at the following schools :—Scudamore Girls' and Boys', Holmer Mixed, St. John's, St. Martin's and Tupsley.

The basins in connection with Holmer Mixed School are in the playground, and in Scudamore Boys' and Girls' Schools adjoin the conveniences ; the position in these cases should be changed. In the majority of instances a single roller towel was in use.

WATER SUPPLY.—Town water supply is in use in connection with each school. In several of the schools enamelled cups are provided for drinking purposes ; such cups are usually fastened by a chain to a wall. It is important that children should not drink from the same cup as there is danger in this way of spreading infectious disease. No cup is needed, as any water for drinking can be held in the palm of the hand.

PLAYGROUND.—The majority of the playgrounds are asphalted, the exceptions being—Scudamore Schools (gravel), and Tupsley. Only a portion of All Saints' playground is asphalted.

On the whole the area of the playgrounds is sufficient. At Holmer Mixed and Infants', St. James', St. Owen's Council, Scudamore Boys' and Tupsley, the space is very good. In a few of the schools it is below the amount of 30 sq. feet per child suggested by the Board of Education.

There is no shelter provided at the following schools :—All Saints', Blue Coat Boys' and Girls', Holmer Mixed, St. James', St. John's, St. Martin's, St. Peter's Infants', and Tupsley.

SANITARY CONVENIENCES.—In the following schools trough closets connected to automatic flushing tanks are in use :—All Saints', Holmer Mixed and Infants', St. James' Infants', St. Martin's, (substituted for short hoppers in 1909), St. Peter's Infants', St. Peter's Council, Scudamore Girls' and Infants', and Tupsley. Pedestals of the wash-down type with separate flushing cisterns are provided at Blue Coat Boys' and Girls' Schools. At St. Owen's Council there are pedestal trough closets flushed automatically. The wash out type are provided at the Roman Catholic and St. John's Schools. At Scudamore Girls' there are three of the long hopper type and in connection with the Boys' school each is connected with a separate flushing cistern. In the majority of cases sufficient light and ventilation are provided by spaces left above and below the doors. In the following schools this was insufficient :—All Saints', Roman Catholic (boys') and Holmer Mixed. On account of the inadequacy it was recommended that conveniences of a modern type should be provided at the following schools :—Scudamore Boys', St. Martin's, Holmer Mixed and Scudamore Girls' (three to be replaced).

URINALS.—Additional accommodation is necessary at All Saints' and Scudamore Boys' and Infants' Schools. There was no proper flushing in connection with the urinals at Tupsley, St. Martin's and at St. Owen's. (a small portion only).

DRAINAGE.—It is impossible to ascertain the condition of the drainage without testing. Reference in regard to St. Martin's School is made on page 130, and to Tupsley on pages 139 and 140 Annual Report for 1909. In several of the schools old "D" traps which were noticed have been since replaced by properly trapped gullies.

At the request of the Managers a complete examination of the drainage system was made by the Sanitary Inspector in connection with the Scudamore Schools and a good deal of work will be necessary to remedy the defects found. It is important that all gullies should be cleaned out regularly.

REFUSE DISPOSAL.—Galvanized iron ashbins with covers are used for the purpose, with the exception of Blue Coat Schools (boxes in use), Scudamore Schools (ashpits) and Tupsley School (ash receptacle).

School.	Date when built.	Average attendance Year ending Jan. 31, 1910.	Ventilation	Lighting.	Heating.	Lavatory Basins.
1. All Saints' (Infants')	1871	197	very fair	fairly good	very fair. (fireplaces)	Four glazed metal basins.
2. Blue Coat (Boys').	1710 (rebuilt)	158	very good	good	good. (radiators & pipes).	Six basins of glazed ware.
3. Blue Coat (Girls').	1910	138	very good	good	fairly good (radiators & pipes).	Four basins of glazed ware.
4. Holmer (Mixed)	1874	233	very fair	fairly good	very fair. (stoves, fireplace in one room).	Two enamelled iron for boys one for girls.
5. Holmer Council (Infants')	1906	179	good	good	fairly good. (radiators & pipes, fireplace in one classroom).	Five basins of glazed ware.
6. Roman Catholic (Mixed).	1877	277	good	fairly good	good (radiating stoves, fireplace in one class room)	Three enamelled iron for boys & 4 for girls.
7. Roman Catholic (Infants')	1887	93	good	fairly good	good (stoves).	Three enamelled iron basins
8. St. James' (Infants')	1896	173	very fair	good	very fair. (fireplaces)	Four glazed metal basins.
9. St. John's (Girls')	1858	96	very fair (one room good)	fairly good	very fair (fireplaces & stoves).	Two enamelled iron basins.
10. St. Martin's (Mixed & Infants')	1859	202	fair (one room fairly good)	fairly good	fair (fireplaces)	Two glazed ware basins.
11. St. Owen's Council (Boys)	1904	276	good	very good	fairly good, (pipes and radiators)	Eight glazed ware basins.
12. St. Peter's (Infants')	1872	186	deficient	fair	very fair, (stoves).	Three enamelled basins.
13. St. Peter's Council (Girls')	1837	247	fairly good	fairly good	fairly good, (pipes and radiators).	Eight glazed metal basins.
14. Scudamore (Boys')	1840	228	very fair, (main room not satisfactory).	very fair, (main room insufficient).	very fair, (stoves and fireplaces).	Two iron basins
15. Scudamore (Girls')	1840.	170	very fair	very fair, (one room fair).	very fair, (stoves—fireplaces, main room).	Two iron basins
16. Scudamore (Infants')	1896	199	good	good	very fair, (fireplaces).	Four white glazed ware.
17. Tupsley (Mixed & Infants')	1867	142	very fair	very fair	very fair, (fireplaces & stoves)	Two iron basins.

NEW ADDITIONS AND ALTERATIONS.

ALL SAINTS'.—This school has been colourwashed and painted throughout. Repairs in connection with the interior and exterior of the building have been carried out, including the playground and the boundary wall in Widemarsh Street. Additional pegs have been provided in the cloakroom. The waste pipe from one of the lavatory basins has been disconnected from the drain, and it now passes over a properly trapped gully outside ; in addition two new lavatory basins have been provided on the ground floor. The backs of the fireplaces have been built forward, but a better slope might have been arranged.

BLUE COAT SCHOOLS.—I have already referred to these buildings. The ventilation, heating and lighting of these schools is now very good. Sanitary bins are now provided.

HOLMER MIXED SCHOOL.—It is the intention of the managers to have a new classroom erected, the boys' cloakroom enlarged, and new conveniences provided at one end of the playground. Other improvements are also to be carried out.

ROMAN CATHOLIC MIXED SCHOOL.—Considerable alterations have been made ; the large main classroom has been divided into three rooms and new floors formed of deal blocks have been laid on concrete. A new window (the middle part sash, with upper and lower hoppers) has been provided in the central room. Additional upper and lower hopper windows have been provided in the classrooms and gas radiators in two of the rooms. Properly trapped gullies have been substituted for the old " D " trapped gullies in use.

ST. MARTIN'S MIXED AND INFANTS' SCHOOL.—Particulars were given on pages 131 and 132, of my Annual Report for 1909, in regard to the erection of a new classroom and the alterations in one of the cloakrooms. The roof windows are now made to open in the cloakroom. I also mentioned that sanitary conveniences of the trough variety and new urinals had been built, and that two new basins of glazed ware had been provided in the girls' cloakroom. A new system of drainage has also been provided. Improvement is needed in connection with the heating and ventilation of the school and additional cloakroom accommodation for the boys and infants is required.

ST. PETERS' INFANTS'.—In my report on this school I stated that I did not consider the present building was suitable for an Infants' School, and that it was questionable whether on account of the position of adjoining buildings the premises could be made satisfactory (in regard to light and ventilation). A report was made by H.M. Inspector and the premises were also inspected by the Board's Architect ; the conclusion arrived at by the Board

of Education was that suitable alterations could not be made in connection with the school, and it has been arranged that the school should be closed at the end of March 1911.

SCUDAMORE SCHOOLS.—The question of the sanitary condition and educational requirements of the boys' and girls' schools have been considered by the trustees during the year. The Board of Education concluded from the report of their Inspector that the arrangements in regard to sanitation and educational requirements were not satisfactory, and it was advised that the main room should be used as a central hall, and that other improvements should be carried out. This will allow of additional lighting being provided in the adjoining rooms, as was suggested on pages 133 & 134 of my Annual Report for 1909.

ST. JOHN'S SCHOOL.—The window on the south side of the lower classroom has been replaced by a much larger one. The lower portion of the two middle divisions open as casement windows, and the four upper panes as hopper windows by means of a sash and pinion arrangement. The lighting and ventilation of this room are now satisfactory. Improved window ventilation is needed in connection with the upper classroom. The ventilation in connection with the main upper room would be much improved if it were possible to provide windows to open on the north side; there would then be cross ventilation.

OTHER SCHOOLS.—The table on page 61 will indicate where improvements in heating and ventilation are necessary. Additional window ventilation is needed in the following schools:—All Saints', Holmer Mixed, St. James', St. Martin's, Tupsley and in other schools which I have referred to.

Additional lavatory basins are needed in Holmer Mixed, St. Martin's, Scudamore Boys' and Girls', and Tupsley Schools; some of the basins might be replaced with advantage. In some of the schools additional towels should be provided—at least one towel to 60 children. Reference to other matters has been made in the separate reports.

The interiors of St. Peter's Girls', All Saints' and Tupsley Schools have been painted and coloured-washed during the year.

GENERAL REMARKS.

In some of the older schools the lighting is sometimes only one seventh to one ninth of the floor space, but in all new schools it is one fifth and sometimes one fourth.

VENTILATION.—In regard to window ventilation this should be arranged so that the windows can be opened (1) at all seasons of

the year, *e.g.* hoppers, sash windows and upper swivels ; (2) widely during the summer months, *e.g.* sash, casement, swivel and French windows.

The windows referred to in class (2) are necessary for changing the air during play hours ; if hoppers only are in use it is difficult to flush a room thoroughly with air. If the above points are borne in mind I do not think there will be any difficulty in understanding that additional window ventilation is necessary in the schools I have referred to.

PERMANENT INLETS.—Where there is adequate window ventilation these are not needed. The majority of Tobin's tubes have a fixed grating at the inlet and cannot be cleaned out ; they consequently act as dust receptacles. In some of the more modern types of tubes there is a large grating fixed in the outside wall by means of two screws, which could be easily removed and the outer part of the tube cleaned out, but I have never heard of this being done. The Tobin's tubes which reach to the floor level—such as are in use in St. John's School—are worse still, and are better dispensed with altogether.

PERMANENT OUTLETS.—With proper cross ventilation by means of windows no outlets are necessary. Where the cross ventilation is not efficient it is an advantage sometimes to have either some form of outlet of the Boyle pattern, or an opening in the ceiling communicating with a louvred ventilator on the roof.

HEATING.—The table on page 65 shows that the morning temperatures in some of the schools during the year were too low. A temperature of 60 degrees Fahrenheit should be aimed at and it is most important that infants' classrooms should be properly heated, as children at this age are more susceptible to changes of temperature.

The objection to heating by means of a fireplace is that the children nearest the fire are over-heated and those furthest away are cold. Stoves usually have the objection—and this specially applies to the Tortoise variety—of becoming over-heated and so deleterious gases are formed. There is not the same objection to the more modern type of radiating stoves, provided the ventilation of the room is efficient.

The better form of heating is by the low pressure hot water system of pipes and radiators ; by this means a uniform heat can be obtained in various parts of the room. It is also possible to have a boiler at the back of one of the fireplaces and so to provide additional heating by means of radiators and pipes in other classrooms, in this case the difficulty in regard to stoking does not arise.

A single room can be heated by a gas radiator ; by means of a bunsen burner steam is generated, and when a certain temperature is reached the gas is turned down automatically ; this system

would probably prove too expensive for a whole school. Electric radiators can also be used for heating; the remarks in regard to cost also apply here.

CLEANLINESS.—I mentioned in the Annual Report for 1909, page 138, that a list of instructions had been sent to each school for the use of the caretaker in regard to the cleaning of the classrooms, conveniences, etc. On the whole I found that the classrooms, cloakrooms and conveniences were kept clean, but in some cases more attention is needed in this direction.

PLAYGROUND.—It will be noticed that in nine schools no shelters have been provided. The opportunity might be taken of constructing the shelters of a pavilion type so that during the summer months classes could be held in the open air. In any new school erected it would be an advantage to have some French windows so that as much air as possible could be obtained in the classrooms during the hot weather; where the whole of one side of a room (as in a sanatorium pavilion) is open, draughts are not felt.

TEMPERATURES IN DEGREES FAHRENHEIT.

NAME OF SCHOOL.	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
	Morn.	Aft.	Morn.	Aft.	Morn.	Aft.	Morn.	Aft.
All Saints' (Infants') ..	51.5	57.1	59.5	64.4	62.8	66.7	50.6	57.6
*Blue Coat (Boys)	49.1	54.3	57.5	62.8	60.6	65.6	55.2	58.9
.. (Girls)	49.2	61.3	55.1	61.8	58.6	61.6	54.5	57.2
Holmer (Mixed)	46.4	52.2	56.6	62.2	60.8	64.7	49.9	55.5
.. (Infants)	50.8	57.8	56.3	63.9	59.7	67.6	54.3	59.8
Roman Catholic (Mixed)	58.7	60.3	60.6	64.8	62.5	67.8	59.3	60.6
.. (Infants)	58.3	59.8	60.4	62.4	61.4	65.7	58.7	60.7
St. James' Infants)	52.2	58.4	60.8	64.8	62.6	68.1	54.1	59.2
St. John's (Girls)	48.2	54.9	57.1	61.6	60.6	66.2	51.5	57.3
St. Martin's (Mixed and								
Infants)	47.5	53.2	58	62.5	61.8	67.7	48.9	54.9
St. Owen's (Boys)	49.5	54.2	57	61.1	61.4	65.4	52.9	55.8
St. Peter's (Girls)	51	56.9	57.6	63.2	61.3	66.8	53.6	59.2
.. (Infants)	51.6	56.5	58.7	63.5	61.2	66.8	54.4	59.4
Scudamore (Boys)	52.6	56.4	60.2	64	62.4	69.3	54.4	58.9
.. (Girls)	48.9	56.7	57.2	64.2	60.7	68.6	52.9	58.5
.. (Infants)	48.3	54.1	58.2	62.9	60.8	67.6	50.5	55.1
Tupsley (Mixed and								
Infants)	48.4	56.2	56.3	62.8	60.8	66.7	51.4	58.5

* During the third quarter the classes in connection with the Blue Coat Schools were held in St. Peter's Church House, and in the Baptist Building.

ORGANISATION AND SUPERVISION OF MEDICAL INSPECTION.

(i.) SCHEDULE OF EXAMINATION.—The Board's Schedule of which a copy is given on page 142, Annual Report for 1909, is followed throughout.

(ii.) ASSISTANCE GIVEN TO SCHOOL MEDICAL OFFICER.—Reference is made in a later part of this Report in regard to the assistance given by nurses in connection with treatment. The teachers have filled up the name, address, and age of the scholar,

and in addition the standard and particulars in regard to attendance. The notices to parents were also sent out by them, and they assisted in the undressing of the children and the weighing and measuring.

(iii.) PRESENCE OF PARENTS.—A notice card was sent out previous to the examination, inviting both or either of the parents to be present at the examination. In a fair proportion of cases one of the parents—usually the mother—was present.* In a good many instances useful particulars were obtained in regard to the previous health of the children, family history, etc.

Where parents are unable to be present they are requested to fill up certain particulars which were referred to in the report for 1909, page 141, and in the majority of cases these particulars were given.

(iv.) EXTENT OF DISTURBANCE OF SCHOOL ARRANGEMENTS.—This was referred to on page 143, Annual report for 1909. In connection with any new school erected in the future I hope two rooms will be provided, one over 20 feet long well lighted for the examination of the children, and another room adjoining to be used as a waiting room. It is inconvenient to have the parents of children who are not being examined, in the room, when the inspection is being made.

The question of providing an extra room should also be taken into consideration in connection with any proposed alterations in the future. As the inspection of school children is of a permanent nature it is important that it should be carried out as efficiently as possible.

EXTENT AND SCOPE OF THE MEDICAL INSPECTION.

(c) *General statement of the extent and scope of the medical inspection, carried out during the year, including:—*

(i.) *The number of visits paid to schools and departments.*

During the year I paid 81 visits to schools in connection with the medical inspection. The inspections are made twice a year.

(ii.) The following children were examined:—

(a) All children five years and upwards at entrance.

(b.) All children twelve years of age and upwards who were likely to leave and had not previously been medically inspected.

* Mothers present at Medical Inspection, 35 %; fathers ditto, 1.4 %; other relatives and friends, 3.7 %.

(iii.) The number of children inspected is shown in the tables on page 68. The following is a list of children examined in each school :—

<i>School.</i>	<i>Boys.</i>	<i>Girls.</i>	<i>Total</i>
All Saints' (Infants')	25	22	47
Blue Coat (Boys')	90	—	90
„ (Girls')	—	50	50
Holmer (Mixed)	18	15	33
„ (Infants')	32	25	57
Roman Catholic (Mixed)	16	37	53
„ (Infants')	10	15	25
Scudamore (Boys')	96	—	96
„ (Girls')	—	42	42
„ (Infants')	51	34	85
St. James' (Infants')	36	28	64
St. John's (Girls')	—	33	33
St. Martin's (Mixed & Infants')..	17	22	39
St. Owen's (Boys')	81	—	81
St. Peter's (Girls')	—	53	53
„ (Infants')	34	31	65
Tupsley (Mixed & Infants')	21	31	52
TOTAL	527	438	965

(iv.) Children in connection with whom direction had been given in regard to treatment of defects were in a large number of cases referred for subsequent examination.

(v.) The following list shows the number of defects in connection with which instructions were given regarding treatment :—

Defective vision	86
Eye disease	13
Other defect of eye	10
Enlarged tonsils	92
Adenoids	33
Other defects of nose and throat	9
Ear disease	22
Deafness	25
Teeth irregular	52
„ decayed	59
Bronchitis	10
Phthisis, or suspicious Phthisis.	6
Other respiratory disease or defect	2
Heart disease	14
Anæmia	37
Tuberculosis	3

Diseases of nervous system	3
Skin disease	29
Enlargement of Thyroid gland	18
Curvature of Spine	1
Other disease	11
Verminous heads	86
Dirty body	18
Defective clothing	13
TOTAL	652

(vi.) The average time taken for each inspection, including weighing and measure, was ten minutes.

GENERAL REVIEW OF THE RESULTS OF MEDICAL INSPECTION.

(d) *General review of the facts disclosed by medical inspection, under the headings contained in the Schedule to Circular 582, including tables showing the height and weight of children inspected (according to age and date of inspection and sex).*

HEIGHTS.

BOYS.				GIRLS.			
Years of Age.	Number at each Age.	Inches.	Centimetres.	Years of Age.	Number at each Age.	Inches.	Centimetres.
5	134	40.6	103.1	5	123	40.2	102.1
6	43	42.6	108.2	6	51	42.8	108.7
7	51	45.5	115.6	7	42	45.2	114.8
8	58	47.1	119.6	8	55	46.2	117.4
9	37	49.1	124.7	9	42	48.0	121.9
10	29	50.5	128.2	10	20	50.9	129.3
11	26	51.5	130.8	11	13	52.6	133.6
12	68	54.7	138.8	12	47	54.9	139.4
13	61	55.5	140.8	13	40	56.3	143.0
14	15	57.8	146.8	14	7	57.1	145.0
15	5	61.0	156.4	15	—	—	—

WEIGHTS.

BOYS.				GIRLS.			
Years of Age.	Number at each Age.	Pounds.	Kilo-grammes.	Years of Age.	Number at each Age.	Pounds.	Kilo-grammes.
5	134	37.9	17.1	5	123	37.0	16.7
6	43	41.0	18.6	6	51	40.3	18.1
7	51	45.9	20.8	7	42	45.6	20.6
8	58	50.2	22.7	8	53	47.5	21.5
9	37	55.0	24.9	9	42	52.9	23.9
10	29	57.8	26.2	10	20	53.9	24.4
11	26	61.8	28.0	11	13	62.3	28.2
12	68	71.9	32.6	12	47	71.9	32.6
13	61	74.1	33.6	13	40	78.5	35.6
14	15	82.4	37.4	14	7	82.8	37.6
15	5	98.2	44.5	15	—	—	—

REGULARITY OF ATTENDANCE.

This was on the whole good, at Holmer Infants' School the attendance was interfered with on account of an outbreak of measles which is referred to later.

In the infants' department more particularly it is important that children should not attend school when indisposed. Cases have occurred where children in the early stages of an infectious disease have attended school during the first day or two after the onset in order not to lose their chance of obtaining a prize for good attendance. Whilst it is important that children should be encouraged in every way never to be absent or late, a careful look-out should be kept for any signs of infectious disease, and children with suspicious signs should be immediately sent home.

Where children are competing for prizes for good attendance, I think it would be an advantage if allowance were made in the case of absence through illness.

In connection with infectious disease in a school the School Medical Officer has power to exclude all the children of any particular class, but in the past there has been hesitation in adopting this measure on account of loss of grant through non-attendance of children.

CLOTHING AND FOOTGEAR.

The clothing or boots were below the average in 221 cases, the particulars are as follows:—

	Boys.	Girls.
Clothing	66 (10.6 %)	37 (8.4 %).
Boots	67 (12.5 %)	41 (9.3 %).

In certain cases the clothing was found ragged, torn or insufficient, and the boots fairly good, the particulars have therefore been kept separate. In some cases the clothing was very fair and the boots were in holes.

It will be seen that on the whole the clothing was satisfactory.

CLEANLINESS.

BODY.—The following information was obtained (the figures in brackets indicate the percentage on the number of children examined):—

	fairly clean.	dirty.	lice marks.
Boys	51 (9.6)	26 (4.9)	32 (6)
Girls	25 (5.7)	23 (5.2)	15 (3.4)

Under the term dirty the condition was marked in the case of 14 boys and 17 girls.

HEAD.—The head was dirty in the case of 5 boys and 7 girls. In about a third of the cases (more often in boys than girls) the head was only fairly clean. A verminous condition was found in the case of 5 boys and 121 girls; in a certain number of cases in girls although nits were found the head was otherwise clean. The particulars in regard to pediculosus are as follows:—

	Some Nits.	Many Nits.	Total.
	62 (14.2 %).	59 (13.4 %).	121 (27.6 %).
Ages	5, 6 & 7.	9, 10, & 11.	12 & 13.
Number	54 (25 %).	39 (30.4 %).	28 (32.3 %).

The percentages are in connection with children examined at the corresponding age periods.

A verminous condition of the hair is much more common in girls than boys on account of the hair being worn long.

PREVIOUS INFECTIOUS DISEASES, ETC.

The particulars in regard to children where information was obtained are as follows:—

	BOYS.		GIRLS.	
	Number.	Percentage.	Number.	Percentage.
Measles	360	71	287	67
Whooping Cough	250	49	214	50
Chicken Pox	138	27	140	32
Mumps	1	.2	1	.2
Scarlet Fever.. .. .	28	5	31	7
Diphtheria	21	4	11	2
Influenza	—	—	—	—
Bronchitis	10	2	10	2
Pneumonia	17	3	12	3
Pleurisy	4	.8	1	.2
Rheumatism	4	.8	1	.2
Tonsillitis	—	—	—	—

The last five diseases were not specified, and so the information given will only represent in part what other illnesses had occurred.

It will be seen that the larger number of children had previously suffered from Measles, and one-half from Whooping Cough. Girls suffered a higher incidence than boys in regard to all the infectious diseases with the exception of Diphtheria, and Measles.

VACCINATION.

Particulars in regard to vaccination in infancy were obtained respecting 444 boys and 392 girls; this had not been carried out in the case of 39 boys (8.7%) and 36 girls (9.1%); further reference to vaccination is made on page 27.

NUTRITION.

This was found to be below normal in the case of 107 boys (20.3%) and 84 girls (19.1%); in addition the condition was poor in 12 boys (2.2%) and 9 girls (2.05%). Of the remaining cases probably about one-fifth were above the average.

TEETH.

The result of the examination of the teeth is shown below.

age.	No. examd.	0	1-5	5-10	10 and over.
5	256	27 (10.6)	155 (60.5)	69 (17)	5 (1.9)
6	94	3 (3.2)	54 (57.4)	34 (36.1)	3 (3.2)
7	89	1 (1.1)	49 (55)	36 (40.5)	3 (3.4)
8	110	3 (2.7)	42 (38.2)	64 (58.2)	1 (.9)
9	79	—	36 (45.6)	38 (48.1)	5 (6.3)
10	55	—	24 (43.6)	31 (56.4)	—
11	39	1 (2.6)	20 (51.3)	18 (46.1)	—
12	111	4 (3.6)	78 (70.3)	29 (26.1)	—
13	81	2 (2.5)	56 (69.1)	23 (28.4)	—
14	22	—	17 (77.3)	5 (22.7)	—
15	5	—	5 (100)	—	—
All ages	941	41 (4.4)	536 (56.9)	347 (36.8)	17 (1.9)

In some cases the number of decayed teeth was not stated.

The numbers at the top indicate the teeth found decayed; the numbers in brackets in the vertical columns are the percentages of the number examined at the various ages.

It will be seen that the number of decayed teeth rapidly increases after the age of 5 years. The number is greatest at the age of 8 years; at this period there are usually an equal number of

temporary and permanent teeth. At ages 7 to 10 inclusive the majority of the temporary teeth drop out so that after this age any decay is for the most part in connection with the permanent teeth.

In a few cases one or more teeth have been stopped. In a certain proportion of cases the teeth were too crowded together, and parents were advised to see a dentist with a view to having one or more teeth removed if necessary. Where there was marked decay and in association abscesses at the roots, the attention of the parents was drawn to the matter.

There can be no doubt that the general vitality of the body is lowered by the existence of foul and septic conditions of the mouth, and in consequence a child with such conditions is more liable to contract disease than a healthy child. A certain amount of enlargement of the glands of the neck is usually associated with the presence of defective teeth.

In the accompanying table, particulars are given in regard to other diseases and defects; arranged according to the various ages. The percentage found in each case is given in the last column.

EYES.

DEFECTIVE VISION.—Altogether the eyesight of 614 children (350 boys and 264 girls) was tested. Children were examined at 7 years of age and upwards. The defects found were as follows:—

6-12ths (both eyes).

Years	7	8	9	10	11	12	13	14	Total
Boys	4	2	1	1	1	1	1	1	12
Girls	3	5	2	4	1	3	1	—	19

6-12ths (one eye; other eye normal).

Years	7	8	9	10	11	12	13	14	Total
Boys	2(l)	2(r)	—	—	1(r)	—	1(l)	—	6
Girls	3(l)	2(l)	—	1(l)	—	1(l)	1(r)	—	8

The figures in brackets indicate which eye was affected.

Over 6-12ths (both eyes).

	6-18ths.	6-24ths.	6-36ths.
Boys	—	4	—
Girls	8	5	1

With defects of 6-18ths, the ages of the girls were as follows:— 7 (3), 9 (2), 10 (1), 11 (1) and 13 years (1); 6-24ths, the ages of the 4 boys (7, 9, 13 and 14 years) and of the 5 girls (7, 10 and 3 aged 13 years); 6-36ths, age of girl, 12 years.

Defect of one eye.

BOYS.—6-18ths and 6-12ths 2,r. (12 years); 6-9ths and 6-18ths, 1,l. (13 years); 6-24ths and 6-18ths, 1,r. (12 years).

GIRLS.—6-9ths and 6-24ths, 1, 1. (7 years); 6-38ths and 6-42ths, 1, 1. (7 years); 6-12ths and 6-24ths, 1, 1. (10 years); 6-18ths and 6-24ths, 3, 1. (9, 12 & 12 years).

The letters indicate which eye had the worse defect. It will be seen by the table facing page 72 that more girls were affected than boys. A boy aged 12 years was blind in the left eye as the result of an accident.

EXTERNAL EYE DISEASE.—The diseases were as follows:—

Defect.	Boys.	Girls.
Blepharitis	4	6
Conjunctivitis	3	5
Blepharitis and Conjunctivitis	1	—

The conditions were present in both eyes, the exceptions, being a girl and a boy aged 6 years, in which cases the left eye only was affected by conjunctivitis; the girl also suffered from corneal ulcer.

OLD DISEASE.—Three boys aged 5, 5 and 11 years had opacities of the cornea and in one case there had also been inflammation of the iris.

A boy aged 5 years suffered from nystagmus.

NOSE AND THROAT.

Particulars are given in the table facing page 72. Three boys and one girl suffered from tonsillitis, and a girl from nasal discharge. There was some obstruction to the breathing in the case of two boys owing to the bridge of the nose being depressed. Surgical treatment is indicated in all the cases of marked enlargement of the tonsils and would probably be required in a certain proportion of cases of moderate enlargement; children with adenoids are 'mouth' breathers, owing to the obstruction in the nose, and there is not uncommonly defective expansion of the chest. The presence of enlarged tonsils or adenoids renders the child more susceptible to sore throat; in addition the hearing is often defective, it is therefore important that surgical treatment should be obtained at an early age. After the operation children should be taught to breathe through the nose, and breathing exercises with this object should be practised daily, otherwise the habit of 'mouth' breathing will persist.

EAR DISEASE.

Ear disease was present at the time of inspection in 1.7 per cent. of the boys and 2.2 per cent. of the girls examined; the particulars are as follows:—

	Boys	Girls.
Both ears	3 (33%)	2 (20%)
One ear	6 (67%)	8 (80%)

In the majority of cases the disease was confined to one ear. In 1.5% of the boys and 2.9% of the girls examined there had been ear disease, but there had been no discharge recently, the particulars are as follows:—

In four instances (1 boy and 3 girls) discharge from both ears and in the case of 5 girls from one ear occasionally. In the remaining cases there had been old disease associated with both ears in respect to 4 boys and 2 girls, and in one ear in connection with 3 boys and 3 girls; in these cases there had been no discharge within one year and in some of the cases not for 3 years previous to the examination.

DEAFNESS.

This was present in the case of 10% of the boys examined and 12.7% of the girls. The particulars are as follows:—

	Both ears.	Left ear.	Right ear.
Boys	27	17	9
Girls	26	23	6

The deafness was caused by wax in the ear in the case of 6 boys and 5 girls (both ears), and 4 boys and 10 girls (one ear); over one quarter of the deafness was caused through wax. The other causes were associated with ear disease (recent and old) and enlarged tonsils and adenoids.

It is most important that any discharge should be treated, as should it persist, permanent deafness usually results. In addition to deafness following neglect of treatment, there is also the danger of inflammation spreading inwards and meningitis occurring. Where the discharge persists in spite of frequent syringing, surgical treatment is useful; I have already referred to the importance of such treatment in connection with enlarged tonsils and adenoids.

ENLARGEMENT OF GLANDS.

There was enlargement (usually of both cervical and sub-axillary glands) in the case of 26.1 per cent. of boys and 26.4 per cent of girls. In addition there was also enlargement of the posterior cervical glands in some of the cases, associated with a verminous condition of the head and sores.

The enlargement was slight or moderate in the majority of the cases ; in one instance there were tubercular glands of the right side of the neck and further reference is made in connection with Tuberculosis.

It is not surprising to find that at least a quarter of the children examined had enlarged glands, considering that the majority had five or more decayed teeth.

Particulars in regard to age and sex are given in the table facing page 72.

ENLARGEMENT OF THE THYROID GLAND.

There was marked enlargement in the case of 6 girls aged 5, 8, 12, 13, 13, and 14 years and a boy aged 10 years, and in the remaining cases a moderate amount of enlargement. Enquiries were made regarding the water supply in the districts in which the children resided, and it was ascertained that a girl aged 13 years had resided in Hereford City for one year, and previously in Herefordshire where spring and well water had been used ; another girl aged 13 years had resided in Hereford since birth and well water had been used. On the other hand two girls aged 5 and 12 years had lived in Hereford City since birth and used the town water supply ; a girl aged 8 years had resided 5½ years in the City.

In connection with the remaining cases, where there was moderate enlargement, in about three-fifths there had been residence in the city since birth, and in the remaining two-fifths for the most part in Herefordshire ; in the latter case usually well water had been consumed.

In one family a girl aged 14 had marked enlargement and the mother was also affected and had been for a good many years ; a sister aged 12 had also moderate enlargement. These people had resided in the town for 9 years, but the mother had resided in Montgomeryshire, for the greater part of her life and had drunk spring water. The mother of a boy aged 12 years also had enlargement and had resided in the town all her life.

The Hereford Town water supply is very soft, there being only 5 degrees of hardness, mostly of a permanent nature ; on the other hand well water in the County is usually fairly hard. There does not appear to be any direct connection between enlargement of the thyroid gland and the consumption of water containing a large amount of lime. In the cases referred to, mental deficiency was not associated with the enlargement ; some of the children with marked enlargement were very bright.

I recently made a special examination of 45 mentally defective children, and in the majority of cases the gland was of normal size

HEART DISEASE.

There was mitral disease in the case of two boys aged 7 and 13 years. In the remaining cases the disease was of a functional nature. In a certain number of instances the defect was associated in boys with dilatation and hypertrophy and was caused by over exertion during games; it was of a temporary nature only. In connection with both boys and girls (more so in the latter case) functional disorder may be caused by anaemia. Irregularity of the heart in boys is sometimes caused by smoking.

Further particulars are given in the table facing page 72.

ANAEMIA.

This was present in 4.3% of the boys and 7.3% of the girls examined. It will be seen that this condition is more common in girls than boys.

*PHTHISIS.

Particulars are given in the table facing page 72. Where there is any risk of infection being spread children are excluded immediately.

RESPIRATORY SYSTEM.

BRONCHITIS.—This disease was generally found among young children, who are more susceptible to the disease than older children. I have already referred to this question in an earlier part of the report.

OTHER DEFECTS.—These mostly apply to deficient expansion of the chest. In some cases the chest was deformed on account of rickets in early childhood, whilst in other cases there was deficient expansion on account of the presence of enlarged tonsils or adenoids.

OTHER FORMS OF TUBERCULOSIS.

TUBERCULAR GLANDS.—A boy aged 5 years suffered from this complaint in the right side of the neck. In some cases a moderate amount of enlargement is caused by the tubercle bacillus, but this is difficult to ascertain by mere inspection.

The boy referred to had suffered from an abscess in association with breaking down glands 6 weeks previous to the examination and there was still some enlargement of the glands remaining.

* There was a family history of the disease in 116 cases, or 14.6% of the children examined (information obtained in 786 instances).

A boy aged 11 years had the remains of recent disease in connection with the eye ; there had also previously been a tubercular abscess in the right side of the neck and disease of the bones of both hands ; the father died from Phthisis.

A boy aged 7 years and two girls aged 8 and 10 years had scars on the right side of the neck indicating the site of abscesses in connection with tubercular glands of the neck. Two girls aged 6 and 7 years had scars on the left side of the neck. The girls aged 6 and 10 years were sisters and there was a family history of consumption ; the mother and grandmother (mother's side) had died from the disease.

NERVOUS SYSTEM.

In connection with 2 boys aged 12 and 13 years there were defects the result of infantile paralysis ; there was some paralysis of the left arm and leg in one case and the right arm was affected in the other boy. A boy aged 6 years was subject to epileptic fits.

Three boys aged 7, 8 and 10 years and a girl aged 8 years suffered from enuresis. A girl aged 7 years was recovering from chorea at the time of inspection, and another girl had neurasthenia. In the case of a girl aged 6 years there was some loss of power of the right hand.

SPEECH DEFECTS.

The particulars in regard to defects of speech are as follows :—

	Nasal	Lisp	Nasal and Lisp	Stuttering	Stammering	Other Defects
Boys	11	8	2	4	3	9
Girls	14	7	1	—	1	3

In the case of a boy aged 13 years and a girl aged 5 years the speech was indistinct on account of cleft palate, although there had been an operation in connection with each case.

In connection with six boys (four 5 years and two 6 years of age) and a girl aged 5 years there was defective articulation and the speech of a boy aged 5 years and girl aged 9 years was slow and indistinct ; the nasal voice was usually the result of adenoids.

MENTAL CONDITION.

It will be seen from the table facing page 72 that in the majority of children examined the condition was normal and in at least 13.4 % of boys and 15.7 % of girls the condition was above normal.

The condition was below normal in the case of 17 % of the boys and 15.9 % of the girls.

SKIN DISEASE.

The conditions found were as follows :—

	Ringworm (scalp)	Ringworm (forehead)	Impetigo	Eczema
Boys	2	1	5	1
Girls	—	2	1	2

A girl aged 9 years suffered from alopecia areata and another girl aged 5 years from lichen.

RICKETS.

In 13 children the presence of inverted tibia, pigeon chest, thickened ends of bones, etc. showed that there had been rickets in early childhood.

DEFORMITIES.

In addition to the various deformities caused by rickets there was pigeon chest in the case of three boys and six girls. A girl aged 7 years suffered from anterior curvature of the spine.

OTHER DEFECTS.

These conditions were as follows :—

BOYS.—Discharging sinus near inner canthus right eye ; naevus of face ; right inguinal hernia ; jaundice and one other defect.

GIRLS.—Naevi right hand and right cheek ; abscess posterior part of foot ; left parotitis. In addition a child aged 5 years was recovering from chicken-pox contracted 10 days previously at the time of inspection.

HOME CIRCUMSTANCES AND INDUSTRIAL CONDITIONS.

(e) *General review of the relation of home circumstances and social and industrial conditions to the health and physical condition of the children inspected, as far as facts bearing on this point have come under notice.*

These matters were referred to on page 169, Annual Report for 1909. As the average rate of wages in Hereford is low, it is sometimes difficult in a working-class family with four or five children to provide sufficient nourishment for the children, and although I have already shown in regard to the majority of elementary school children that the nutrition is normal, there can be no doubt of the beneficial effects which would follow from a higher rate of wages. In this connection the decision of the Town Council at their meeting on April 1st to adopt a minimum wage of 19/- per week for every able-bodied workman under the Corporation is an important one.

In several instances where the children wore ragged clothing and defective boots, it was ascertained that the parents were intemperate. The attention of the National Society for the Prevention of Cruelty to Children was called to the matter and a visit from their Inspector had a very beneficial effect.

TREATMENT OF DEFECTS.

(f.) *“Review of the methods employed or available for the treatment of defects, such as defective eyesight, carious teeth, nasal obstruction or adenoids, tonsillitis, discharging ears, pediculosis, ring-worm and other skin diseases, including an account of the action of school nurses in obtaining or assisting in the treatment of such defects.”*

GENERAL REVIEW.—During the year extensive alterations and improvements have been carried out in connection with some of the schools, and important alterations are contemplated in the future in connection with other schools; such improvements in regard to lighting, ventilation and heating would have a beneficial effect on the health of the children. Insufficient or improper lighting has a bad effect on the eyesight. It is important that walls should be coloured a suitable tint (for example greenish-grey) that does not fatigue the eyes, and there should be absence of glazing and diamond-shaped panes or other ornamental glass. The attitude of children when occupied with near work should be carefully considered; in some cases where the blackboards are fixed in the lower part of the walls there is insufficient space between the desks and the walls and in consequence children stand too close to the boards. Care should be taken in regard to sewing, the use of small stitches and unduly fine material has an injurious effect on the eyesight.

There can be no doubt of the beneficial effect of good ventilation on the health of school children; the enormous improvement in weakly children who attend open-air schools has been frequently shown. In order that window ventilation can be made use of during the winter months, it is important that the heating should be adequate; where there is insufficient heating the windows are often closed and consequently the ventilation is defective. Young children are specially liable to suffer from cold. It is therefore important that a temperature of 60° F. should be maintained. Habits of cleanliness should be encouraged in the children, and on this account a sufficient number of basins and towels should be provided. Where the surface of the playground is uneven, and not asphalted a good deal of dirt is carried into the classrooms on the children's boots. It is important that the dust should be reduced as much as possible and in this connection the treatment of the floors in some cases with a dust-laying material, of which there are several brands on the market, would prove useful. Article 18 of the Code states that “school premises must be adequately lighted, warmed, ventilated, cleaned and drained.”

It is important in connection with prevention of the spread of ringworm, pediculosis, etc., that there should be a sufficient distance between pegs and rows of pegs in the cloakrooms and that each child should have its own peg; it would be an advantage, in the case of any new girls' cloakrooms, if a larger amount of space than one foot were allowed between pegs and rows in order that the hats should not overlap. It is important that children should be adequately clothed; one sometimes sees children with very defective boots. The use of serviceable footgear is important, (clogs last longer than boots and are cheaper).

From a health point of view it is important that children should not stoop or sit in a bad position, and the substitution by your Committee of dual desks for the old-fashioned desks without backs, which are in use in some of the schools, will be a great advantage. It is very satisfactory to note what has already been done in various ways towards improving the health of the school children.

MEDICAL TREATMENT.—Where parents were present at the time of inspection their attention was drawn to any disease or defect found; in other cases a written notice was sent stating the defect and advising the parent to have the child examined by their own doctor or dentist. During the latter part of the year I re-examined the majority of the children in connection with whom defects had been found, and enquiries were also made in regard to treatment. The number of written notices sent the first time was 146, and in addition 102 second notices were sent. Medical and surgical treatment was obtained in approximately 60% of the cases, and of these in one third of the cases only after second notices.

Section 12 (1), Part II of the Children Act, 1908, gives power for dealing with parents or guardians who neglect their children in a manner likely to cause injury to health by failing to provide adequate food, clothing, medical aid or lodging for the child. In connection with the unnecessary suffering such neglect would cause are mentioned particularly, injury to or loss of sight, or hearing.

The Local Education Authorities (Medical Treatment) Act, 1909, gives power to recover the whole or part of the cost of the treatment, unless the Authority is satisfied that the parent by reason of circumstances is unable to pay.

TEETH.—The particulars given on page 71 show that in connection with the majority of children the condition of the teeth is generally very bad; no attempt is made to clean the teeth. In a good many instances where the teeth were either irregular or very much decayed with abscesses of the gum in association I recommended dental treatment, but in only 13 cases was this obtained.

There can be no doubt that dental caries has increased during the last two or three generations and that to a large extent this has been caused by a change of diet. It has been shown that in animals living under natural conditions and in primitive man, dental disease is almost unknown.

Dr. Wheatley, County Medical Officer of Health for Shropshire, considers the following to be the all important causes of dental caries (1) First and foremost the feeding during the formative period with carbo-hydrate food, principally, if not entirely, in a soft, sticky, and pappy form. (By the formative period is meant that period during which the jaws and teeth are developed and the habits of mastication formed). (2) The non-inclusion in the diet throughout life of a sufficient amount of food of a tough or cleansing nature. (3) The wrong order in which foods are eaten, so that the mouth is not left clean and free from food after each meal. (4). Too great frequency of meals and also the eating of foods containing sugars and starch at other times than meals, so that the mouth has not a proper opportunity of cleansing itself.

Soft food during early childhood is apt to cause defective habits of mastication, on the other hand efficient mastication, as pointed out by Dr. Wheatley, acting on hard, tough or fibrous food is the only means of keeping the teeth clean. Other remarks in this connection are made on page 71. It will be seen that the decay of teeth can be largely diminished by preventive means. In January last I was requested by your Committee to report on the desirability of establishing a school Dental clinic in Hereford, and if so, what steps could be taken in that direction. In April I presented a report to your Committee in which I urged the importance of the use of the tooth brush by school children. An account of the treatment, which has already been carried out in this country, and in Germany was given, and I suggested that at first only children from the age of 5 to 9 years should be examined and treated, and that the services of a part-time dentist should be employed. I also suggested that further discussion of the matter should be left over until the whole question of the treatment of medical and surgical, as well as dental defects, had been considered, and I hope shortly to present a report to your Committee. I would suggest that at first only children at the ages of 6, 7 and 8 years should be examined and the teeth treated.

PEDICULOSIS.—Verbal instructions were given in the case of verminous conditions of the head and body at the time of inspection, and in the absence of the parents written notice was sent to the mother drawing her attention to the condition and giving suggestions for treatment. (Altogether 67 notices were sent). Where no improvement followed after a certain interval I received a communication from the Head Teacher ; a communication was then sent to the Hereford City Nursing and Maternity Society and the children

excluded from school. Altogether 37 girls were treated necessitating 115 visits. In the majority of the cases the condition was rather marked and the nurses took a considerable amount of trouble in connection with the children. In five instances there were two children of one family, and in two cases three children treated.

The Hon. Sec. of the Nursing Society, Mrs. Allen, in a report presented to your Committee, stated that as a rule the cases were not so bad as in 1909, and there was less objection on the parents' part. In a few instances children who had been previously treated became again affected, and it was suggested in these cases, that the adults in the same house were in a similar state.

When no further treatment was necessary and the children were fit to attend school a letter was sent to the mother, in which she was warned that she must give more attention to the child in future.

CLEANLINESS OF PERSON.—Where the head or body were dirty, attention of the parents was drawn to the matter and improvement generally followed. Reference has already been made to the importance of sufficient provision of lavatory basins and towels.

CLOTHING AND FOOTGEAR.

Reference to this matter has already been made on pages 69 and 70.

In the report of the Watch Committee to the Town Council on January 3rd, 1911, it was stated that the Committee had approved a system of Police Aid for the clothing of poor children now in force in the City of Oxford and other towns. Such a scheme if carried out would (to quote the words of the Committee) "assist in the alleviation of much of the suffering which innocent and unoffending children are forced to endure through insufficiency of clothing owing to causes they have in no way helped to produce, and which they are utterly powerless to remove."

PREVENTION OF INFECTIOUS DISEASE.

(g) *Review of action taken to detect and prevent the spread of infectious diseases, including reference to action taken under Article 45 (b), 53 (b) and 57 of the Code of 1908.*

On pages 174 to 181, Annual Report for 1909, I gave particulars in regard to the action taken in this town to detect and prevent the spread of infectious disease. I am indebted to the head teachers and the attendance officer for information in respect to infectious and

contagious disease; particulars are given below. This information is most useful in connection with non-notifiable diseases, such as Measles, Whooping Cough, Mumps, etc., and it is very desirable that more information should be given in the future.

Eight visits have been paid to schools during the year in regard to infectious disease, and in addition 37 children with suspicious infectious disease, or in which there was some doubt about the diagnosis have been examined in their own homes.

SCHOOL CLOSURE.—Measles appeared in the babies' class at Holmer Infants' School about the middle of October, and by the 19th of that month there had been altogether 9 cases. On this date I decided to exclude the remaining children under 5 years (between 30 and 40); a list of precautions was sent to the home of each child affected with the disease, and instructions given in regard to the exclusion of the patient and any brothers or sisters from school. Up to November 22nd odd cases occurred at intervals, but there was no marked spread of the disease until the beginning of December; about this time the cases began to increase rather rapidly, and on my suggestion the school was closed by two members of the Sanitary Authority under Art. 57 of the Code, from December 8th to January 16th, 1911. The school was disinfected in the interval.

As the attendance at Holmer Mixed School was affected by the non-attendance of brothers and sisters of children in the Infants' School who were affected by the disease, and on account of the occurrence of several cases, I recommended the closing of this school under Article 53 (b) of the Code from December 16th until January 16th.

SCHOOLS	Scarlet Fever.	Diph- theria.	Chicken Pox.	Measles	Influ- enza	Vermi- ous Head	Sores on Heads.	Skin Dis- eases.
All Saints' (Infants') ..	—	—	1	—	—	—	—	—
Blue Coat (Girls')	—	—	5	—	—	—	—	—
Holmer (Infants')	—	—	—	16	—	—	—	—
Roman Catholic (Mixed (Infants')	—	—	—	—	—	2	—	—
St. Martin (Mixed & Infants)	—	—	1	—	—	—	1	—
St. Peter's (Girls')	—	1	3	—	1	3	21	—
St. John's (Girls)	—	—	—	—	—	25	—	4
Scudamore (Infants) ..	—	—	—	—	—	3	—	—
Tupsley (Mixed & Infants)	1	—	11	—	—	—	—	—
Total	1	1	21	16	1	33	22	4

Four cases of chicken-pox were notified as suspicious (All Saints' 3, St. Peter's Infants' 1) and one case of impetigo (St. Peter's Infants'). Two cases of chicken-pox and one of verminous head were also notified in writing by the attendance officer, and others verbally.

(i.) *Review of—*

- (i.) *The methods and results of instruction in personal hygiene and temperance in the public elementary schools in the area ;*
- (ii.) *The methods and results of physical or breathing exercises in the school ;*
- (iii.) *Arrangement for open air schools, schools, school camps, etc., under Article 44 (g) of the Code of 1908.*

HYGIENE AND TEMPERANCE.

On page 187, Annual Report for 1909, I referred to these matters. Hygiene and Temperance is now taught in all the higher standards. A memorandum has recently been issued by the Board of Education on the "Teaching of Infant care and Management in Public Elementary Schools" and a copy has been sent to the correspondent of each school. The author is Dr. Janet Campbell, one of the Medical Officers under the Board, and a good many useful suggestions are given. In regard to some points probably instruction is already being given on the lines suggested, but there will be other matters which might very well be dealt with.

A schedule of instruction is given suitable for girls between 7 and 12 years of age and another schedule for girls between 12 and 14 years, which contains amongst others the following subjects :—

(i.) House-keeping—

How to spend the weekly income to the best advantage; marketing ; how to make the house comfortable, pretty, and cheerful; thrift, etc.

(ii.) The care of Infants and Young Children—

Interesting details are given in regard to practical methods of teaching of Infant management, which in the words of the Memorandum should be regarded as the culminating point, in the teaching of Hygiene through the school life.

In connection with housekeeping it is important that instruction should be given in regard to the cost and nutritive value of the various foods. Diagrams can be obtained which show the weight, composition as regards proteid, fat, sugar and starch, and energy value of various foods, which can be purchased for one shilling ; it is readily seen from the diagram how to spend this amount on food to the best advantage. It would be useful if the elder girls were provided with one of these diagrams, as there is still a good deal of ignorance in regard to the dietetic value of the various kinds of food.

It would be an advantage if bread made from unadulterated wheat flour and containing at least 80 % of the whole meal, including the germ and semolina, were used instead of the ordinary white

bread. Such flour which is suggested as a standard, contains the whole of the germ which is rich in proteids and fat, and the inner layer of the husk, and contains a larger amount of iron and phosphate, so important in bone and tissue formation. In the process of the manufacture of white flour the whole of the germ and husk is removed and with the latter the mineral salts which are so important. Standard bread is of tougher consistency than white bread and therefore needs more mastication; it has therefore a more cleansing effect on the teeth. White bread requires so little chewing that it has no beneficial effect on the teeth, and by fermenting in the crevices directly leads to decay.

Recently information has been obtained by the National Food Enquiry Bureau from members of the Medical Profession, Nurses, Teachers, Athletes and others in regard to the value of oatmeal and other oat food, and the opinion expressed has been unanimously in favour of the more common use of these foods. The more general use of such foods would give to all classes increased mental and physical vigour, and assist in raising the present physical standard. Dr. Hutchinson states that one pound of proteid can be obtained from oats for 7½d. and that the same amount derived from beef would cost 2s. 8d.

PHYSICAL AND BREATHING EXERCISES.

On pages 192 and 193, Annual Report for 1909, reference was made to the new addition of the syllabus of Physical Exercises published by the Board of Education.

There can be no doubt that the physical exercises have had and will continue to have an important effect on the development of healthy and also weakly children. In Hereford every facility is given by the Town Council to boys to learn to swim. During 1910 a large number of boys from the elementary schools went regularly to the baths during the summer months, and of these 140 obtained certificates of proficiency—81 for swimming 20 yards, and 59 for 50 yards. Arrangements have now been made to allow of girls also attending the baths; during the year 7 obtained certificates of proficiency—6 for swimming 20 yards and 1 for 50 yards.

OPEN-AIR SCHOOLS, Etc.

There are no open-air schools in this town, although in connection with a certain number, classes are held in the playground during the hot weather, and reference has been made to this on page 65.

(h.) Review of the methods adopted and the adequacy of such methods for dealing with blind, deaf, mentally or physically defective and epileptic children under the Acts of 1893 and 1899.

ELEMENTARY EDUCATION (BLIND AND DEAF CHILDREN)
ACT, 1893, ETC.

Under Section 2 (1) of this Act, your Committee are contributing towards the maintainance of a boy aged 12 years in the Royal Institution for Deaf and Dumb, Edgbaston, Birmingham.

In April last I presented a report to your Committee in connection with Mentally Defective children attending the elementary schools in this town.

Powers are given to an Education Authority under the Elementary Education (Defective and Epileptic Children) Act, 1899, to deal with children in their district, who not being imbecile, and not merely dull or backward, are defective. An imbecile may be defined as one who from an early age is incapable of earning his own living, but is capable of guarding himself against common dangers, whilst an idiot is a person so deeply defective in mind from birth or from an early age that he is unable to guard himself against common physical dangers. Information was obtained from the head teachers of each school regarding the number of defective children, which consisted of 27 boys and 9 girls. Of these children, 19 were under the age of 10 years and 17 over 10. It was found that a number of the children had attended schools for only short periods, and in some instances the education had been very much neglected. The children were weighed and measured, and the majority were below the average found in regard to Hereford children, and in several instances markedly so. In a good many of the cases various signs of degeneration were found; in the majority of the children the memory was defective and their powers of attention very poor. In regard to educational attainments the whole of the children were very much below the average; about one half were either in Standard I. or in a lower class, and most of the remaining children were in Standard II. The standard reached in regard to writing, which is mainly mechanical, was very fair; but in connection with reading and especially calculation—which need more mental effort—the standard was only poor.

I was asked by your Committee to further classify the children into two groups :—

1. Children who are backward but are likely to earn their own living unsupported.
2. Those who are not likely to earn their own living.

In December I reported on 31 boys and 14 girls. Six boys and two girls who had been previously examined had left school, and 10 boys and 7 girls had been brought to my notice since. They were divided into the two groups referred to above, and the children in group 1 were sub-divided as follows :—

- (a) Those who could be taught in an ordinary class.
- (b.) Others who should be taught in a special class or school.

In group 1 (a.) there were 8 boys and 2 girls, whilst in group 1 (b.) there were 18 boys and 7 girls.

In group 2 were included children suitable for treatment in an institution, and these included 5 boys and 5 girls. In regard to the children in this group further enquiries were made from the parents regarding their willingness to allow the children to be sent to an institution, but in only two instances (in the case of a girl aged 11 and a boy aged 12 years) was this consent given; arrangements are now being made for sending these children to institutions. It has recently been suggested by the Royal Commission on the Feeble Minded that the State should have authority to detain mentally defective persons under proper conditions and limits on their behalf, and should have the power to demand contributions from relatives who are able to pay for their support; in Hereford the parents are very averse to sending their children to an institution for permanent treatment. The Education Authority only have control over a child up to the age of 16 years; after this period the cost of treatment can be met in whole or part by Boards of Guardians.

(i.) *Account of miscellaneous work, such as the examination of Scholarship candidates, Pupil Teachers, or Teachers of any grade.*

I examined a boy aged 10 years for admission to an Industrial School.

At various times children were referred to me either by the head teachers or by the attendance officer for examination; altogether 34 children were examined and the following conditions were found:—Phthisis, 2; Suspicious Phthisis, 1; Other form of Tuberculosis, 1; Tonsillitis, 2; Conjunctivitis, 1; Anæmia, 1; Abscess in association with decayed teeth, 1; and General Debility 1. The following skin diseases were found: Impetigo, 8; Ringworm, 2; Scabies, 2; Eczema, 1; Urticaria, 1; Sores on Face, 1; in eight cases there was a verminous condition of the head accompanied by sores, and in one case a child was suffering from suspicious chicken-pox. Children with infectious or contagious disease were excluded from school and re-examined before their return.

In conclusion I beg to thank the Chairman and other Members of your Committee for the consideration always shown me, and the teachers and attendance officer for their co-operation and assistance.

I am, Ladies and Gentlemen,

Your obedient Servant,

J. W. MILLER.

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HEREFORD URBAN DISTRICT.

Vital Statistics of Whole District during 1910 and previous years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate.*	Under 1 Year of Age.		At all Ages.					Number	Rate.*
				Number.	Rate per 1000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
†1900	21270	512	24.7	67	130	394	18.5	73	28	8	374	17.6
1901	21400	496	23.1	64	129	379	17.7	90	39	5	345	16.1
1902	21550	526	24.4	58	112	362	16.7	70	27	9	344	15.9
1903	21700	564	25.9	78	138	388	18.1	82	40	5	353	16.2
1904	21900	489	22.3	61	124	355	16.0	101	33	9	331	15.1
1905	22050	525	23.8	41	78	345	15.6	85	39	4	310	14.05
1906	22200	479	21.5	60	144	376	16.9	84	41	7	342	15.4
1907	22350	536	23.9	51	95	351	15.7	86	41	11	321	14.3
1908	22358	482	21.5	46	95	349	15.6	92	30	10	327	14.6
1909	22504	486	21.59	52	107	350	15.5	79	37	11	324	14.39
Averages for years 1900-1909	21928	509	23.2	58	115	364	16.6	84	35	7	337	15.4
1910	22652	495	21.85	50	101	346	15.2	59	139	4	308	13.59

*Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

†This estimate of population for the year 1900 is calculated upon the withdrawal of Reserves, Militia, and Volunteers to South Africa.

NOTES—(a) The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district, including citizens who have died in the Lunatic Asylum. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

‡There were three deaths of non-residents in the City which did not occur in Public Institutions.

(b) By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in Public Institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

I.	II.	III.
Institutions within the District receiving sick and infirm persons from outside the District.	Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions the Deaths in which have been distributed among the several localities in the District.
Workhouse. Herefordshire General Hospital.	Lunatic Asylum.	Isolation Hospital.

Area of District in acres (exclusive of area covered by water)

5,031

 Total population at all ages, 21,382
 Number of inhabited houses, 4,565
 Average number of persons in each house 4.63

At Census of 1901.

TABLE II. (L.G.B.)

HEREFORD URBAN DISTRICT COUNCIL.

Vital Statistics of separate Localities in 1910 and previous years.

NAMES OF LOCALITIES.	WHOLE DISTRICT.				LEDBURY WARD.				LEOMINSTER WARD.				MONMOUTH WARD.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
1901 ..	21400	496	345	64	8211	182	122	26	7935	193	140	24	5254	121	83	14
1902 ..	21550	526	344	58	8259	186	125	24	8008	221	137	22	5283	119	82	12
1903 ..	21700	564	353	78	8133	208	132	25	8073	229	137	38	5314	127	84	15
1904 ..	21900	489	331	61	8408	177	125	23	8148	204	116	22	5344	108	90	16
1905 ..	22050	525	310	41	8456	183	116	16	8238	248	118	14	5356	94	76	11
1906 ..	22200	479	342	69	8503	181	129	32	8316	195	135	22	5381	103	78	15
1907 ..	22350	536	321	51	8577	193	105	17	8371	216	141	21	5402	127	75	13
1908 ..	22358	482	327	46	8548	154	129	17	8404	218	126	18	5406	110	72	11
1909 ..	22504	486	324	52	8582	187	131	17	8510	211	123	24	5412	88	70	11
Averages of 9 Yrs. 1901 to 1909.	22001	509	333	57	8428	183	123	21	8222	215	130	22	5350	110	78	13
1910 ..	22652	495	308	50	8630	174	131	19	8598	222	112	22	5424	99	65	9

NOTES.—(a) Deaths of Residents occurring beyond the district are included in sub-columns C of this table, and those of non-residents registered in the district excluded.

(b) Deaths of residents occurring in public institutions are allotted to the separate wards according to the addresses of the deceased.

TABLE III. (L.G.B.)

HEREFORD URBAN DISTRICT.

Cases of Infectious Disease notified during the year 1910.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH WARD.				NO. OF CASES REMOVED TO HOSPITAL FROM EACH WARD.			
	At all Ages.	At Ages—Years.					Ledbury Ward.	Leominster Ward.	Monmouth Ward.	Ledbury Ward.	Leominster Ward.	Monmouth Ward.	Total cases removed to Hospital.	
		Under 1	1 to 5.	5 to 15	15 to 25.	25 to 65								65 wards
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Group)	31	7	12	4	8	9	14	8	5	12	4	21	..	
Erysipelas ..	19	2	2	1	10	9	5	5	..	..	..	..	..
Scarlet Fever ..	19	7	9	1	2	9	3	7	8	3	6	17	..	
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	10	..	5	1	4	3	2	5	..	..	3	3	..
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis (Poor Law)	13	..	1	2	10	..	..	..	..	..	..	..	..
“(Voluntary)”	10	..	1	2	7	..	..	..	..	..	..	..	..
Totals ..	102	2	16	30	11	41	2	2	30	24	25	13	15	41

NOTES.—*Two Voluntary cases were afterwards notified as Poor Law.

The Isolation Hospital for Infectious Diseases is in the parish of Tupsley, in the Ledbury Ward, within the liberties of the city. No. of beds, 32.

The Isolation Hospital for Small-pox is in the parish of Hampton Bishop, outside the liberties of the city. No. of beds, 12.

The Workhouse, Prison, and the Herefordshire General Hospital are in the Ledbury Ward.

TABLE IV. (L.G.B.)

HEREFORD URBAN DISTRICT.

Causes of, and Ages at, Death during Year 1910.

CAUSES OF DEATH.	DEATHS AT THE SUGGESTED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							DEATHS AT ALL AGES OF "RESIDENTS" BELONGING TO LOCALITIES, WHETHER OCCURRING IN OR BEYOND THE DISTRICT.			Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District. I2
	All Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	WARDS.			
								Leadbury	Leominster	Monmouth	
I	2	3	4	5	6	7	8	9	10	11	12
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..
Measles .. .. .	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever	I	..	..	..	..	I	..	..	..	I	..
Whooping-cough	I	..	..	..	..	..	..	..	..	I	..
Diphtheria (including Membranous croup)	2	..	I	I	..	..	..	I	..	..	I
Fever } Typhus .. .. .	..	..	..	..	..	..	..	..	..	..	..
} Enteric	2	..	..	I	..	..	..	..	..	..	..
} Other continued .. .. .	..	..	..	..	..	..	..	..	..	..	..
Epidemic influenza	6	I	I	..	..	2	2	2	3	I	..
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	I	I	..	..	..	..	..	..	..	..	..
Enteritis	7	5	I	..	..	I	..	3	4	..	I
Gastritis	I	..	..	..	..	..	..	I	..	..	..
Puerperal fever .. .. .	..	..	..	..	..	..	..	..	..	..	..
Erysipelas	I	..	..	..	..	..	..	..	..	..	..
Phthisis, (Pulmonary Tuberculosis),	20	..	..	I	I	I	..	..	..	..	I
Other tuberculous diseases	8	..	2	I	2	..	..	14	5	I	8
Cancer, Malignant disease	24	..	..	..	..	3	..	4	4	..	5
Bronchitis	18	4	I	..	..	15	9	11	7	6	9
Pneumonia	17	6	2	3	I	..	12	9	3	6	3
Pleurisy .. .. .	..	..	..	..	..	..	2	15	I	I	5
Other diseases of Respiratory organs	I	..	..	..	..	..	..	..	..	..	I
Alcoholism .. .. .	..	..	..	..	..	..	..	I	..	..	..
Cirrhosis of liver	2	..	..	..	..	2	..	..	I	I	..
Veneral diseases	I	I	..	..	..	..	..	..	..	..	I
Premature birth	10	10	..	..	..	..	..	4	3	3	..
Diseases and Accidents of parturition	2	..	..	..	..	I	..	..	..	..	..
Heart diseases	44	..	..	..	..	3	27	13	21	10	13
Accidents	8	I	..	..	..	4	2	3	3	2	7
Suicide	3	..	..	..	..	I	I	..	..	..	..
Diseases of Nervous system	43	5	I	..	2	14	21	15	17	11	18
Old Age	38	..	..	..	..	..	36	18	10	10	8
Urinary System	9	..	..	..	..	..	4	3	4	2	7
Gastric Ulcer	4	..	..	..	..	..	..	2	2	2	..
All other causes	34	14	I	2	2	10	5	11	19	4	14
ALL CAUSES	308	50	10	10	14	101	123	131	112	65	102

NOTES.

- (a) The deaths of residents occurring beyond the district are included in this table, and deaths of non-residents occurring in the district are excluded. See note (b) in Table 1 as to meaning of "residents" and "non-residents."
- (b) Deaths of residents occurring in public institutions are allotted to the respective Wards according to the addresses of the deceased as given by the Registrar, and in addition are classified under "Public Institutions."
- (c) Under the heading of "Diarrhoea" are included deaths from Diarrhoea, alone or in combination with some other cause of ill-defined nature; and also deaths certified as from epidemic enteritis, Zymotic Diarrhoea, Summer Diarrhoea, Choleraic Diarrhoea, Cholera, Choera Nostras (in the absence of Asiatic Cholera), Dysentery, and Typhoid.
- (d) Under the heading of "Enteritis" are included those certified as from Gastro-Enteritis, Muco-Enteritis and Gastric Catarrh, unless from information obtained by inquiry from the certifying practitioner or otherwise, there has been reason for including such deaths, especially those of infants, under the specific term "Diarrhoea." Deaths from Diarrhoea secondary to some other well-defined disease are included under the latter.

TABLE V. (L.G.B.)

V.

HEREFORD URBAN DISTRICT.
INFANTILE MORTALITY DURING THE YEAR 1910.
 Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 Week	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.	
ALL CAUSES	Certified ..	9	4	4	2	20	7	7	1	3	5	2	2	..	2	..	1	49	
	Uncertified ..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Common Infectious Diseases	Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria (including Membranous Croup) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough	1	1	1
	Diarrhoea, all forms	1	1
Diarrhoeal Diseases †	Enteritis, Muco-enteritis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	„ Gastro-enteritis ..	..	..	..	..	..	2	3	1	..	..	..	..	..	..	..	..	6
Wasting Diseases.	Gastritis, Gastro-intestinal Catarrh ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Premature Birth ..	6	1	1	..	8	..	2	..	..	..	..	..	..	..	..	..	10
	Congenital Defects ..	1	1	1	..	3	1	..	..	..	..	..	..	..	..	..	..	4
Tuberculous Diseases	Injury at Birth ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast-milk, Starvation Atrophy, Debility, Marasmus ..	1	1	1	1	4	1	1	..	1	2	..	..	..	..	..	..	9
Other Causes	Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Tuberculous Peritonitis : Tabes Mesenterica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis	1	1	1	1
Other Causes	Rickets ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Meningitis (not Tuberculous) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Convulsions ..	2	..	..	..	2	..	1	..	..	..	1	..	..	..	..	1	4
	Bronchitis ..	..	..	..	..	..	1	..	..	1	1	..	1	..	..	..	..	4
	Laryngitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia ..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
	Suffocation, overlying ..	..	..	..	..	..	1	..	..	..	1	1	..	..	2	..	..	5
Other Causes ..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	2
TOTALS ..		10	4	4	2	20	7	7	1	3	5	2	2	..	2	..	1	50	

† See Notes to Table IV. (L.G.B.)

District—CITY OF HEREFORD.

 Births in the year { Legitimate, 463.
 { Illegitimate 32.

Population (Estimated to middle of 1910) 22,652.

 Deaths in the year { Legitimate, 44
 { Illegitimate, 6.

Deaths from All Causes at All Ages, 308

