

[Report 1910] / Medical Officer of Health, Cheltenham Borough.

Contributors

Cheltenham (England). Borough Council.

Publication/Creation

1910

Persistent URL

<https://wellcomecollection.org/works/g87nxw6g>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.




Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>

Borough of



Cheltenham.

ANNUAL REPORT
OF THE
SANITARY  CONDITION

ETC., ETC., OF THE
BOROUGH OF CHELTENHAM.
FOR THE YEAR 1910.

BY
J. H. GARRETT, M.D., D.P.H.,
MEDICAL OFFICER OF HEALTH,

Together with the Report of the Chief Sanitary Inspector,

ALSO THE
Annual Meteorological Report by Mr. A. C. Saxby.

—
"Salus Populi Suprema Lex."
—

PRINTED BY ORDER OF THE SANITARY AUTHORITY.

—
CHELTENHAM:
G. F. POOLE, PHENIX PRESS, BENNINGTON STREET.

BOROUGH OF CHELTENHAM.

PUBLIC HEALTH COMMITTEE.

MR. ALDERMAN W. N. SKILLICORNE, J.P.
(Chairman of the Committee).

THE MAYOR (MR. COUNCILLOR C. H. MARGRETT).

MR. ALDERMAN G. NORMAN, J.P.

MR. COUNCILLOR J. H. BLAKENEY, M.R.C.S.

MR. COUNCILLOR R. DAVIES, M.D.

MR. COUNCILLOR E. C. GREEN.

MR. COUNCILLOR T. REES JONES.

MR. COUNCILLOR W. SAWYER.

MR. COUNCILLOR R. STEEL.

MR. COUNCILLOR J. STEWART.

MR. COUNCILLOR HERBERT STROUD.

MR. COUNCILLOR W. J. F. WOOD.

Town Clerk—MR. R. OWEN SEACOME.

Borough Surveyor—MR. J. S. PICKERING.

MEDICAL OFFICER'S DEPARTMENT.

Chief Inspector of Nuisances—A. E. HUDSON.

Assistant Inspectors—

E. J. MANDERS. C. W. CLIFFORD. C. J. EMERSON.

Clerk—F. R. JEFFORD.

Medical Officer of Health—J. H. GARRETT, M.D., D.P.H.



*To the Mayor and Members of the Sanitary
Authority of the Borough of Cheltenham.*

GENTLEMEN,

I beg to present to you my Annual Report for the year 1910.

The comparatively higher Death-rate of 1909 has been followed by a year in which the statistics are just as far on the lower side of the average, and I am enabled to record death-rates, and rates of zymotic disease incidence for the year 1910 which taken altogether make the best showing of any year to date. The effect of the Measles epidemic of 1909, in clearing the ground of susceptible children for the time being, was made evident by the fact that following the 47 deaths of 1909 from this cause there was no death at all to register in 1910, and very few cases were heard of. It is unfortunate that the immunity thus brought about only concerns in reality the children who suffered the disease, and in a too short time the conditions again offer scope for an attack of this pest of child life, for the prevention of which very little appears to have been so far effected.

The result of the coming census will be of interest to us inasmuch as a permanent population of 50,000 would render it possible for Cheltenham to acquire a greater autonomy as a County Borough, although the extension of

the borough boundary to include recent suburban developments would be a certain means of acquiring the necessary number in any event, and will probably be required before any application can be made ; for, although the population of Cheltenham as it exists within its present bounds is almost certainly over 50,000, the extension would appear to be required as a guarantee of its remaining over that number.

In the pages of the Report will be found a brief record of the business of the year which, as usual, has given full occupation to those employed. Special consideration was given during the year to the application of the Housing and Town Planning Act, the continued use of private slaughter-houses, the production of milk, the management of the Delancey Fever Hospital, the bacteriological diagnosis of Diphtheria, the removal of the brown stain from the Severn water, and other subjects.

As usual I have to express my thankful appreciation of the friendly assistance of my fellow officers, both in my own and in other Departments of the Corporation, during the year past.

I have the honour to be, Gentlemen,

Yours faithfully,

J. H. GARRETT.

February 20th, 1911.

INDEX.

	PAGE
Address to the Mayor and Members of the Corporation	I
Vital Statistics :—	
Summary for 1910.. .. .	7
The Borough of Cheltenham	7
Site and Subsoil	8
Altitude and Climate	8
Sewerage and Water Supply	9
Removal of House Refuse	10
Pollution of Streams	10
The Population	10
Births and Birth-Rate	11
The Infant Death-Rate	11
Deaths and the General Death Rate	12
Death-Rate from Zymotic Diseases	12
Deaths from other Chief Causes	12
Table of Statistics for last ten years	13
ZYMOTIC DISEASES :—	
Zymotic Diseases notified in each month in 1910, and numbers treated in Hospitals	14
Scarlet Fever	14
Diphtheria	14
Typhoid or Enteric Fever	15
Diarrhœal Disease and Whooping Cough	15
Influenza	15
Number of Cases of Zymotic Diseases Notified since Notification began ..	15
Vaccination	16
Phthisis	16
Cases of Phthisis Notified under the 1908 Regulations	17
DEATHS CERTIFIED BY CORONER after Inquests, 1910	18
DEATHS NOT CERTIFIED IN 1910	18
WARD STATISTICS :—	
List of Deaths in Streets of North Ward	19
" " South Ward	20
" " East Ward	21
" " West Ward	23
" " Central Ward	24
" " Middle Ward	25

Deaths in Institutions in 1910	26
Deaths occurring in the District of Persons belonging to Outside Districts	27
Deaths Occurring beyond the District and belonging here	27
Table giving Death Rates from all and special causes in Cheltenham and its several Wards in 1910	28
Local Government Board Tables I., II., III., IV., V.	29 33
Large Table showing Deaths from various Groups of Diseases, etc. ..	33

Sanitary Work Done :—

Summary of Routine and other Sanitary Work done in Health Department in 1910	34
Inspections	36
Table of House-to-House Inspections in North and South Wards ..	38
Houses Unfit for Habitation	40
Paving of Yards	40
Ash Receptacles	41
Improvements in House Drains	41
The Corporation Sanitary Certificate	42
List of Sanitary Certificates granted in the year	42
Slaughter-Houses and Public Abattoir	44
Diseased Meat Destroyed	45
Food Shops Inspected	46
Offensive Trades	46
Dairies, Cowsheds, and Milkshops—Inspections	46
Common Lodging Houses	47
Inspections under the Factory and Workshops Act	48
Formal Return under the Factory and Workshops Act	49
Bakehouses.. .. .	51

Reports upon Matters of Current Interest :—

Further Report upon the Private Slaughter-Houses existing in Cheltenham and their required Abolition	52
Report upon the Housing (Inspection of Districts) Regulations—1909 ..	60
The Production of Milk	63
The Infectious Diseases Hospital at Cheltenham	64
The Medical Inspection of School Children	65
Diphtheria and Bacteriological Methods	66
Deaths and Districts	68

SALE OF FOOD AND DRUGS ACT :—

Return of Articles submitted for Analysis, 1910	69
---	----

METEOROLOGICAL REPORT for 1910 by Mr. Saxby	71
---	----

VITAL STATISTICS.

SUMMARY.

				ACRES.
Acres of Municipal Borough	...	...	...	4,726
Rateable Value	...	...	...	£318,590
Population at middle of last year	...	...	...	51,500
Population in 1901 Census	...	...	...	49,439
Persons per Acre in the Borough	...	...	...	10·6
Average number of persons per house	1901 Census			4·77
Death-Rate, 1910	...	...	Per Thousand Living Inhabitants	12·1
Average Death-Rate for previous ten years	...	...	" "	14·0
Zymotic Death-Rate for 1910	...	...	" "	·49
Average Zymotic Death-Rate for previous ten years	...	...	" "	·87
Birth-Rate, 1909	...	...	" "	18·0
Average Birth-Rate for previous ten years	...	...	" "	19·2
Infant Death-Rate (under one year old) per Thousand Births, 1910	...	...	...	68
Infant Death-Rate Average for previous ten years per Thousand Births	...	...	...	109

The Borough of Cheltenham.

Cheltenham is one of the most attractive residential towns in the country, and in the face of much competition on the part of other places, whether by reason of old favour or new development, and notwithstanding a change of sentiment and habit of life in the richer part of the general populace, which has lessened the demand for town houses of large size, this town continues to flourish, and by its pleasing aspect, special facilities for high-class education, numberless institutions for the provision of entertainment and pleasure, and its own pleasant surrounding country is likely to remain in favour as a place of settlement for families of independent income, and of those whose business it is to supply them with the means of a more or less luxurious existence, and themselves with the necessaries of a more ordinary one.

SITE AND SUBSOIL : The somewhat abrupt steeps of the Cotswolds form a far-stretching hill line that passes up and down the county of Gloucester facing the broad valley of the river Severn. Close to the base of these hills at about their middle part lies Cheltenham, with an aspect open to the western side towards the valley above mentioned, the Severn being distant some seven miles. The hills are fairly close behind the town, and send out spurs to widely half-enclose it in a protecting semicircle North-East to South-West, the easier ascent to the hill-tops being a road following the course of the small stream called the Chelt, which, rising four or five miles away, flows through the centre of the town. The general fall of the ground being towards the Severn gives good facilities for drainage. This part of the Severn Vale consists chiefly of an under-soil of lias clay which on the hill flanks rises to a considerable height before it is overlapped by the limestone oolite of the Cotswolds. None of the houses of Cheltenham actually stand upon the oolite, though on the Leckhampton Hill side the boundary rises very near to it. But filling the hollows of the clay below to a depth varying from a few feet to fifty feet or more is a clean, fairly sharp sand, and upon this or upon the uncovered lias clay the houses are built, more than half of the houses of the town standing upon sand.

ALTITUDE AND CLIMATE : The chief residential parts of the town have an altitude of about 220 feet above mean sea level, and the altitude does not vary greatly or suddenly in any part. There is a gentle rise up the course of the Chelt, and away from its either bank, to the South continuously to the borough boundary border at Leckhampton, the rise in the course of two miles from the little river in this direction being from about 200 to nearly 400 feet, with houses all the way, and others beyond the boundary at a higher altitude.

The Cotswold Hills in the neighbourhood of Cheltenham rise to a height of 1,000 feet, and there are a few residences in the locality at altitudes of from 500 to 800 feet.

Questions are often asked as to the climate of Cheltenham. "Climate" as applied to different places in England is a vague and uncertain expression, and undoubtedly varies much within quite limited areas. Within three miles of our High Street there are considerable variations. In the centre of the town the atmosphere is not eager as on the slopes of Cleeve Hill

or Leckhampton. There is probably no more bracing climate in the country than the bare summits of the Cotswolds, though these are not within the town's area, but only within easy reach. It is thought that the numerous trees with which the town is planted affect the climate to some extent, although, inasmuch as the trees are chiefly of deciduous species, one cannot see that they can have an appreciable effect in the winter season. There does not appear to be anything to be learned from the death and disease statistics to show that the climate is responsible for a heightened death-rate or a heightened rate of incidence of any disease whatever. The development of the youthful part of the community appears to be sound and regular, the bones being straight and well formed with fewer exceptions than commonly to be observed elsewhere. You do not often see a case of marked rickets. Old Age in Cheltenham is hardly ever decrepit. There are a large number of men here who have long passed their threescore-and-ten years and who continue to attend to their daily business with alacrity. These elderly people are upright and active in foot and limb. They are hardly ever rheumatic or continuously bronchitic, certainly not to the extent in many other places observable, for these diseases are reputed elsewhere to be the very bane of old age, being also commonly associated with climate.

SEWERAGE AND WATER SUPPLY : Every part of the town is sewered with the exception of a few outlying houses, and water closets are in almost universal use. The sewage falls away from the town to the sewage farms, where formerly it was treated by broad irrigation, but where, for the treatment of a considerable proportion of it, new tanks and filters are at the present time in progress of construction, some of them having in fact been completed. The condition of the sewers in the town is undergoing a systematic attention for their repair or renewal, and last year powers were obtained to amend the condition of the sewers in the South-East District, including those private sewers called the Tivoli Sewers, concerning which there has been a considerable and lengthened agitation. The work for the repair and renewal of these sewers has actually been begun and is likely to be completed in due course within the next few months. Certain outfall sewers to the Farm which were of too small a size, leading to a too quick overflow with resulting polluted streams, have

recently been re-made in greater size to the relief of these streams from pollution. The house drains of the town have received much attention, and defects are always radically remedied upon discovery, and any person taking a house in Cheltenham may insure the drainage being sound and the sanitary arrangements satisfactory by demanding a Sanitary Certificate for the house as granted by the Corporation.

The water supply is constant and ample in quantity, the system being the property of the town. Springs upon the neighbouring hill-slopes and the head waters of the Chelt collected into reservoirs at Dowdeswell, Battledown and Leckhampton, give the main supply of water, and for some months in the dry season this is supplemented by a carefully filtered supply from the river Severn. The latter supply has a brown tint due to peat stain which from time to time is deepened, as when heavy rains succeed a drought. This, as well as a temporary slight turbidity in a portion of the water supply, due to a disturbance of deposit upon the pipes, which occasionally takes place when for any reason the current of water through the pipes is reversed in direction, has led to the receipt of complaints at distant intervals. Representations upon the matter have been made to the Water Committee, who have the subject under consideration with a view to remedy.

REMOVAL OF HOUSE REFUSE : This is effected with great regularity and sufficient frequency. It is a long time since I heard of any accumulation being discovered or complained of. Storage in galvanized iron moveable receptacles is in pretty general employment, which renders removal clean and facile. The powers to demand the provision of such receptacles having been obtained in a private Act of Parliament more than twenty years ago, have for long been in active use, though the provision or re-provision of such receptacles is a matter still requiring the constant oversight of the Inspector. The house refuse is destroyed by fire in a Destructor with a sufficient number of furnace cells.

POLLUTION OF STREAMS ; There is no pollution of streams in this neighbourhood at the present time which can be said to deleteriously affect the health of Cheltenham.

THE POPULATION : The population here is slowly increasing as evidenced by the greater number of houses in occupation, there having been some considerable amount of

building since the last census was taken. The new houses for the main part are of a fair class artizan type, but also include a good many small villas and a fair number of villas of moderately larger size. As a result of the census which takes place within a few weeks I am prepared to learn that the average number of inhabitants per house has diminished somewhat, but nothing like sufficient to counterbalance the increase in the number of houses. The South Ward should show the greatest increase, and after this the West, with some decrease in the North Ward perhaps. I estimate the population at about 51,500, which is an increase of about 2,000 in the last ten years. Considerable increase has also taken place near to, but beyond the border of the borough, which must have tended to deplete the surplus in the town itself. Any further tendency in this direction should be prevented by obtaining an extension of the boundary.

BIRTHS AND THE BIRTH-RATE : The births last year numbered 929 which gives the low rate of 18 per 1000 of the population. Of these 60 were illegitimates. The working class districts contributed the bulk of the births as is usual. The birth-rate is showing a marked decadence throughout the country, which must have a profound meaning and result upon national numbers, and national power and importance. The decreasing death-rate is not in such correspondence with the decreasing birth-rate as to leave the matter *in statu quo ante*. The diminution of the death-rate is probably irregular in respect of the several age groups at which life has been saved, with the likely result of a different age distribution of the whole population. Unless the numbers are increased at the most virile ages when life as an operative existence of body and mind is at its best, it would not seem as if much were gained. The forthcoming census may reveal some comparative particulars in such connections, of considerable interest, such as the relative respective ability of the population now and before for labour or for increase.

THE INFANT DEATH-RATE : Standing for last year at 68 deaths per 1,000 born is the lowest ever recorded here. The infant death-rate throughout the country has shown a great and rather sudden decrease of late years. The causes which producing fewer deaths last year led to the considerable diminution in the infants' death-rate here were zymotic diseases, premature birth and vague causes such as "debility",

and pneumonia, the excess of the last in 1909 being very likely connected with Measles. Deaths amongst illegitimate infants were as usual in greater proportion than those amongst legitimates, the proportion of deaths to births being 20 per cent. of the former and 7 per cent. of the latter.

DEATHS AND THE GENERAL DEATH-RATE : There were 639 deaths registered in 1910 as having occurred within the borough, 32 of these belonged to other districts nearly all of them having died in our General Hospital or Workhouse Infirmary into which they had come from other districts for treatment. This year for the first time I was provided with the deaths belonging to Cheltenham which occurred in the Lunatic Asylums of the County. Cognisance of these has never been taken before and it makes a fractional difference to the death-rate. After this addition and subtraction the nett number of deaths pertaining to our population is 624, giving a death-rate of 12·11 which is the lowest yet recorded for the whole town. The average for the last ten years being 14·1.

THE DEATH-RATE FROM ZYMOTIC DISEASES : From the zymotic diseases usually included in the estimation of the zymotic death-rate there were in all but 25 deaths, giving the low death-rate of ·49. Infantile diarrhœa and whooping cough contributed each 9, and 4 from typhoid and 3 from diphtheria made up the rest. 18 of the 25 deaths from these zymotic diseases were in children under 5 years of age.

DEATH-RATES FROM OTHER CHIEF CAUSES : Cancer 1·08, phthisis ·75, pneumonia, broncho-pneumonia, bronchitis and pleurisy together 1·32, all per 1,000 living population.

Table of Statistics for the last 10 years, showing Deaths from Chief Zymotic Diseases, and Zymotic Death-rate, and Total Deaths and General Death-rate; also Total Births and Birth-rate per 1,000 of population, and (under 1 year old) Infant Death-rate per 1,000 children born.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Small Pox ...	...	1	...	...	...	...	...	...	...	...
Measles ...	1	15	...	...	30	7	...	...	47	...
Scarlet Fever ...	1	2	2	3	1	1	...	...	...	...
Diphtheria ...	7	10	3	3	6	9	7	1	3	3
Whooping Cough ...	14	8	5	3	11	1	7	3	5	9
Enteric and Continued Fevers ...	1	2	3	2	2	1	2	2	2	4
Diarrhoea, Enteritis, &c., in Young Children ...	16	13	16	39	24	16	15	16	21	9
Population...	49,500	49,700	50,500	50,500	50,500	51,000	51,000	51,000	51,500	51,500
Total Deaths from seven chief Zymotics...	40	51	29	50	74	35	31	22	78	25
Death-rate from Chief Zymotics ...	.80	1.02	.57	.99	1.46	.68	.60	.43	1.51	.49
Total Deaths belonging to District ...	757	715	643	714	747	711	708	641	784	624
General Death-rate ...	15.2	14.3	12.7	14.1	14.8	13.9	13.8	12.5	15.2	12.1
Total Births ..	1005	945	1062	961	995	975	881	955	949	926
Birth rate ...	20.3	19.0	21.0	19.0	19.7	19.1	17.2	18.7	18.4	18.0
Infant Death-rate per 1,000 Children born ...	111	120	85	133	131	100	95	90	119	68

Zymotic Diseases.

Last year must be looked upon as quite a favourable year as regards the incidence of zymotic disease. It is fortunate upon this occasion to have little requiring special comment. In my last report I had to note a serious epidemic of Measles which destroyed numerous lives amongst children of most youthful age, but last year there was no such disastrous occurrence.

208 notifications were received in all for the cases of notifiable diseases that occurred during the year.

ZYMOTIC DISEASES NOTIFIED in each month during 1910.							
Month.	Scarlet Fever.	Diphth- eria.	Enteric Fever.	Puerperal Fever.	Erysi- pelas.	Small- pox.	Totals.
January	7	5	...	...	3	...	15
February.....	5	57	1	...	5	...	68
March.....	2	7	...	...	...	...	9
April	6	4	1	...	3	...	14
May	7	2	1	...	2	...	12
June	14	...	1	...	2	...	17
July.....	9	4	...	...	4	...	17
August	10	3	...	...	1	...	14
September	8	4	...	...	3	...	15
October	3	...	1	...	2	...	6
November	5	2	...	...	1	...	8
December	5	2	3	2	1	...	13
The 12 months Totals.....	81	90	8	2	27	...	208
Total No. treated in Hospitals	70	70	4	1	1	...	146

SCARLET FEVER: There were 81 cases of this disease without a death against, an average for 21 years of 148.

DIPHTHERIA: The 90 notifications were certainly more than usual, for during the 21 years since infectious diseases first began to be notified the average has been just 50 per annum. But although this is the largest number of cases ever received in one year there were not really more cases than in several of the former years, the surplus having been

made up of cases which clinically were without considerable import, but which were diagnosed by bacteriological means. There were three deaths.

TYPHOID OR ENTERIC FEVER : There were but eight cases of this disease, some of which were imported, and half of them died which is a large proportion.

DIARRHOEAL DISEASE IN SMALL CHILDREN, AND WHOOPING COUGH : Of these there were of each 9 deaths, and how many cases this number represents for each disease we do not know as they are not notifiable.

INFLUENZA : This disease was fatal as a chief cause in 18 cases and thus proved itself to be more dangerous to life last year than any of the common infectious diseases. Probably also some further deaths from pneumonia and bronchitis were of influenza origin, and it must be admitted that influenza remains a great misery producing complaint, which is apt to be very fatal to old people.

Number of cases of Zymotic Disease notified in Cheltenham since notification began.						
Year	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever	Small-pox	Erysipelas
1890	93	16	24	2	...	...
1891	75	15	19	...	...	...
1892	264	10	10	...	...	...
1893	419	33	63	4	2	...
1894	147	26	27	1	3	...
1895	89	25	34	3	1	...
1896	126	60	26	4	22	...
1897	224	43	20	1	...	...
1898	296	52	23	5	...	...
1899	273	80	16	...	...	...
1900	103	74	32	1	...	21
1901	67	58	18	1	...	16
1902	147	63	18	3	1	19
1903	142	65	17	...	1	25
1904	143	59	7	...	...	25
1905	116	65	16	...	4	42
1906	104	61	24	6	1	37
1907	30	71	14	...	...	16
1908	79	53	12	1	...	20
1909	87	39	20	2	...	24
1910	81	90	8	2	...	27
Average for all years	148	50	21	1.7	1.6	24

Vaccination.

Public Vaccination is decadent in this town. The number of vaccinations performed from year to year vary considerably, but are on the down grade. The following are the numbers, with the percentage relative to the number of births in each year, for the last 5 years :—

Year.	Births.	Vaccinations.	Percentage Vaccinated of Children Born.
1906	975	667	66
1907	881	565	64
1908	955	455	47
1909	949	460	48
1910	926	393	42

Phthisis or Pulmonary Tuberculosis.

The country has been latterly much stirred in connection with consumptive disease, and attention has been particularly directed to the provision of sanatoria for treatment by fresh air, good feeding and regulated exercises. There has been some controversy as to the merits of the treatment and some misunderstanding as to what is to be expected of it. It is hardly to be expected that it will prevent consumption, or lessen the number of cases occurring. It is rather more of a curative effort, a matter of treatment rather than prevention. In the public managed places it is now recognised that the cases should be very carefully selected, and only those admitted who are in an initial stage of the disease, as the treatment is an expensive one, and experience has shown that in advanced cases there is little permanent improvement to be hoped for, whilst the effort and object of the institution is to assist commencing invalids to return to their occupation in a recovered condition. Unfortunately the return is often to an unsuitable home and unsuitable feeding, and on account of the prejudice that now attaches to the disease and those suffering from it, it is not easy to obtain new employment when once the patient has left work to enter the sanatorium.

The most recent view of the sanatorium is that it is an institution whose use should be confined to cases in the first stage of the disease in whom a cure is possible, and to instilling the knowledge of the mode of life best calculated to keep the disease at bay.

Hospitals for the reception of cases of advanced consumption are quite different institutions, and are an undoubted desideratum, especially now that General Hospitals demur at taking cases of phthisis into their wards, as there are a good many instances of poor cases that during the last months of life are but ill attended in their cottage homes.

More recently the establishment of Dispensaries for the special treatment of phthisis by tuberculin injection has been strongly recommended, and from the reports of the results obtained from this treatment this appears to be a promising mode, and one likely to be taken up as being easier and less costly than the provision of sanatoria. There must be some advantages in keeping patients in the initial stages of the disease in their own homes, and possibly allowing them to continue to follow their avocations whilst under treatment at the dispensary, where all lessons to be learned in connection with the best mode of life and treatment can be inculcated almost as well as if the patient went to a sanatorium. I think that a beginning might be made in Cheltenham to treat consumption upon these latter lines, and that the good resulting would be obtained at a less cost than were a couple of beds in a distant sanatorium acquired, whilst greater extent of good might also be expected.

Visits to phthisis patients of the poorer class, when notified, have continued to be made, and the other things done as before reported, but I do not think that we have done anything of notable effect in connection with this disease as the result of receiving notifications of phthisis.

The following cases of poor persons were notified in connection with the Poor Law Institutions last year as required by Act of Parliament.

Cases of Phthisis Notified under the Public Health (Tuberculosis) Regulations Act, 1908.						
				Total Number.	Sex.	
					Male.	Female.
Notifications	under	Form	A	12	9	3
"	"	"	B	11	4	7
"	"	"	C	3	3	...
"	"	"	D	2	2	...
Total	...	...		28	18	10

**Deaths Certified by Coroner after an Inquest
in 1910.**

Abscess on the Brain	...	...	...	...	...	1
Accident by burns	...	...	...	...	...	3
" " suffocation in bed	...	...	...	...	...	1
" " fall	...	...	...	...	...	2
Asphyxia	...	...	...	...	...	1
Coma following uræmic convulsion	...	...	...	...	...	1
Died under anæsthetic	...	...	...	...	...	2
Hæmorrhage due to ruptured vein...	...	...	...	...	...	1
Heart disease, heart failure, syncope	...	...	...	...	...	14
Peritonitis due to perforation of the bladder	...	...	...	...	...	1
Pneumonia, bronchitis	...	...	...	...	...	3
Rupture of the spleen	...	...	...	...	...	1
Septicæmia	...	...	...	...	...	1
Suicide by cut throat	...	...	...	...	...	2
Tetanus	...	...	...	...	...	1
Want of attention at birth	...	...	...	...	...	1
					—	
					36	
					—	

Deaths not Certified in 1910.

Bronchitis at age 83 years	...	...	...	...	...	1
Cerebral hæmorrhage at age 68 years	...	...	...	...	...	1
Congenital weakness at ages 1 day	...	...	...	...	...	2
Heart failure at ages 77, 81, 87 years	...	...	...	...	...	3
Premature birth at age 30 minutes	...	...	...	...	...	1
Senile decay at age 89 years	...	...	...	...	...	1
					—	
					9	
					—	

Ward Statistics.

The following Lists give the deaths in the streets in which they occurred. The figures after the name of the chief cause of death represent the age at death in years, unless weeks, days, or months are indicated, a comma separating one death from another when there are two or more from the same cause.

NORTH WARD.

Albert street, St. Paul's	...	senile decay 81, influenza 65, phthisis 24, apoplexy 72
Baker street...	...	miliary tuberculosis 8 months
Burton street	...	senile decay 66, apoplexy 68, pneumonia 11, phthisis 37
Cleveland street	...	accidentally suffocated in bed 5 days, phthisis 57, tubercular meningitis 15 months
Devonshire street	...	senile decay 80
Elm street	...	want of attention at birth newly born, broncho-pneumonia 8 months
Gas lane	...	heart disease 73, senile decay 76
Gloucester road	...	whooping cough 1 month
Granville street	...	bronchitis 73, broncho-pneumonia 9 months, meningitis 2
Grove street	...	apoplexy 39, 76, hepatic abscess 50, cancer 43, 72, 71
Hanover street	...	phthisis 17
Hereford passage	...	convulsions 8 months, diarrhoea 14 months
Hereford place	...	bronchitis 56
High street	...	acute eczema 76, tubercular meningitis 18 months, heart disease 52, 66, apoplexy 69, bronchitis 67, puerperal septicæmia 30, nephritis 63
Hungerford street	...	burns and shock 4, phthisis 15, whooping cough 14 months, fall and fractured skull 63, diabetes 58, cellulitis of neck and operation 15 months
King street	...	Bright's disease 63, paralysis agitans 64, pneumonia 66
King street gardens	...	broncho-pneumonia 15 months
Malvern street	...	purulent pericarditis 7 months, debility 4 months, senile decay 73, tubercular meningitis 2 months
Market street	...	pneumonia 64, chronic gastric catarrh 64
Marsh lane	...	senile decay 74, 80, burns and shock 9
Millbrook street	...	cancer 92, pleurisy 68, injury to throat 3
Milsom street	...	cancer 65
Nailsworth terrace	...	phthisis 27, heart disease 44
New street	...	whooping cough 5 months, gastric ulcer and operation 42, senile decay 82, premature birth 6 hours

Park street (lower) ...	...	influenza 67
Queen street... ..	...	phthisis 33, apoplexy 65
Russell place ... ..	...	premature birth 15 hours
Russell street ... ..	...	premature birth 12 hours
St. Paul's street North	...	senile decay 78
St. Paul's street South	...	bronchitis 73, rickets 3, syphilis 2 months
Stanhope street ... ..	...	pneumonia 51, senile decay 80
Stoneville street ... ..	...	senile decay 78, meningitis 7 months, 5, phthisis 59
Sun street ... ..	...	cancer 65, apoplexy 64, senile decay 76
Swindon place ... ..	...	valvular heart disease 56, fall and fractured skull 18, phthisis 48
Swindon road ... ..	...	cancer 49, 83, phthisis 54, 45, 46, 43, broncho-pneumonia 63, influenza 64, spina bifida 9 days, gout and nephritis 62, diarrhoea 2 months, congenital weak- ness 1 day, erysipelas 72
Swindon terrace ... ..	...	convulsions 7
Tewkesbury road ... ..	...	senile decay 72, 74, debility 4 days, cancer 48, apoplexy 36
Townsend street ... ..	...	premature birth 30 minutes
Victoria street, St. Paul's	...	apoplexy 71, heart disease 42
Whitehart street ... ..	...	senile decay 78
Worcester street ... ..	...	heart disease 80

Deaths in Institutions not capable of exact reference but appropriated to this ward: gangrene of lung 74, bronchitis 74, cancer 67

SOUTH WARD.

Asquith road ... ..	...	broncho-pneumonia 14 months
Bath parade ... ..	...	bronchitis 80, cancer 70
Bath road ... ..	...	senile decay 79, hemiplegia 79, cancer 45, 86, heart disease 42, nephritis 64, pneu- monia 18, diabetes 53, rupture of spleen 59, phthisis 61, apoplexy 74, 54, enlarged prostrate 79
Bath street ... ..	...	senile decay 86
Bath street (upper)... ..	...	gastric ulcer 52
Bath terrace... ..	...	paralysis 69, acute rheumatism 31, acute gastritis 4, apoplexy 69, senile decay 83
Cambray ... ..	...	premature birth 2 hours, gall stone and peritonitis 39
Charlton lane ... ..	...	pneumonia 2 months
Clare place ... ..	...	senile decay 75, croup 15 months, cancer 44
College road... ..	...	influenza 51
Commercial street ... ..	...	apoplexy 84, meningitis 5 months
Corpus street ... ..	...	cancer 63, heart disease 70, 62, phthisis 37, bronchitis 83, puerperal septic peritonitis 25
Ewlyn road ... ..	...	senile decay 89
Exmouth street ... ..	...	fatty heart 77, senile decay 71, cancer 37, bronchitis 13 months, broncho-pneu- monia 48

Exmouth terrace	entero-colitis 5 months
Fairfield avenue	phthisis 32, cerebral softening 91, apoplexy 71
Fairfield road	myocarditis 61
Fairhaven road	senile decay 83, pneumonia 39
Fairhaven street	cerebral embolism 65
Francis street	influenza 70, 65, apoplexy 82, gastric ulcer 44
Gratton street	senile decay 80, endocarditis 78
High street	cancer 69, apoplexy 69, heart disease 72
Langdon road	disseminated sclerosis 60, peritonitis 81
Leckhampton road	senile decay 85
Leicester terrace	tubercular meningitis 3 months
Mitre street	pneumonia 4 months
Montpellier grove	progressive muscular atrophy 63
Montpellier retreat	abdominal tumour and heart disease 47, bronchitis 75, 2 months
Naunton crescent	fatty heart 62, broncho-pneumonia 89, cirrhosis of liver 68
Naunton lane	tubercular caries of spine 45
Naunton terrace	Bright's disease 75
Norwood road	tabes dorsalis 49
Norwood street (great)	dilation of heart 53, apoplexy 81, cirrhosis of liver 47
Oriel walk	tubercular meningitis 2, phthisis 65
Pilley	fatty heart 76, senile decay 86
St. Luke's road	pneumonia 41, atheroma 78
St. Philip's street	diabetes 65, pneumonia 67
Sandford road	heart disease 83
Sandford street	tubercular meningitis 3, tubercular disease 54, suicide by cut throat 73, cancer 74
Suffolk parade	apoplexy 65
Suffolk road	suicide by cut throat 46
Suffolk street	arterio-sclerosis 76, fatty heart 76
Thirlestaine road	influenza 58
Vernon place	bronchitis 5 months
Victoria place	senile decay 75
Wellington place	locomotor ataxy 52

Deaths in Institutions not capable of exact reference but appropriated to this ward : broncho-pneumonia 60, apoplexy 73.

EAST WARD.

Albert place	heart disease 75, glioma 60
All Saints' road	senile decay 75, 94, apoplexy 68, phthisis 22, cancer 67, 74, rodent ulcer 83, abscess of pancreas 69
All Saints' terrace	phthisis 33
Berkeley place	aneurism of aorta 68, senile decay 90
Columbia street	phthisis 32, senile decay 87, 77, cerebral softening 63
Carlton street	influenza 72
Coltham fields	bronchitis 48
Duke street	appendicitis 20, heart disease 72, 47, senile decay 75, 71, tubercular meningitis 15 months, hepatic cirrhosis 52, enteritis 3 months, phthisis 29

Fairview road	...	...	heart disease 24, 73, senile decay 91, apoplexy 67
Fairview street	...	...	cancer 75, 86, 87
Glenfall street	...	...	senile decay 76, whooping cough 5, influenza 53
Grosvenor street	...	...	senile decay 77, intestinal obstruction 74, heart disease 74
Hale's road	...	...	heart disease 65, asthma 75, cancer 84, cerebral disease 76, phlebitis of femoral vein 34
Hewlett place	...	...	heart disease 58
Hewlett road	...	...	strangulated hernia and operation 57, pericarditis 58, hepatitis 58, premature birth 3 days, cancer 66
Hewlett street	...	...	heart disease 73, phthisis 18
High street	...	...	senile decay 84
Jersey place	...	...	senile decay 82
Jersey street	...	...	whooping cough 6 weeks, pneumonia 58
Keynsham street	...	...	tubercular meningitis 8 months
King's road	...	...	cancer 62, senile decay 91
Leighton road	...	...	heart disease 64, 71
London road	...	...	debility 3, cancer 73, 49, senility 87, apoplexy 69
Park street (upper)	...	...	congenital heart disease 2 months, apoplexy 80, tubercular meningitis 16
Pittville circus	...	...	influenza 85
Pittville circus road	...	...	diabetes 73, meningitis 31
Princes street	...	...	apoplexy 62
Priory street	...	...	heart disease 67
Providence square	...	...	congenital syphilis 1 month
Rosehill street	...	...	cancer 65, cerebral abscess 68, cirrhosis of liver 41
St. Anne's terrace	...	...	cancer 71
St. James' street	...	...	apoplexy 83, Bright's disease 63, senile decay 75, phthisis 48
Selkirk street	...	...	apoplexy 63, congenital weakness 1 day, bronchitis 83, 9 months
Sherborne place	...	...	apoplexy 75, bronchitis 70, uterine hæmorrhage 65
Sherborne street	...	...	bronchitis 13 months
Sidney street	...	...	convulsions 7 months, influenza 81, bronchitis 84
Sydenham villas	...	...	cancer 67
Union street	...	...	acute miliary tuberculosis 19, meningitis 19 months
Victoria terrace	...	...	heart disease 67, cancer 51, tubercular peritonitis 57, pernicious anæmia 35, senile decay 93
Victoria terrace	...	...	tubercular meningitis 11
Winstonian road	...	...	influenza 74, bronchitis 82
Witcombe place	...	...	senile decay 82
Woodbine cottages	...	...	infantile diarrhœa 23 months
York street	...	...	gastric catarrh 3 months

Deaths in Institutions not capable of exact reference but appropriated to this ward: delirium tremens 43, gastritis 47.

WEST WARD.

Alstone	...	...	heart disease 66, 71, 65, cancer 54, bronchitis 76, premature birth 4 hours, senile decay 86, phthisis 20, 39, acute tuberculosis 2, whooping cough 7
Alstone avenue	...	...	phthisis 65
Ambrose street	...	...	apoplexy 64, senile decay 70
Arle road	...	...	cerebro-spinal meningitis 22, membranous croup 7
Bayshill road	...	...	albuminuria 83, senile decay 85
Bayshill terrace (little)	...	...	cirrhosis of liver 58
Chapel street	...	...	cancer 50
Christ Church road...	...	...	senile decay 77, fractured femur 74, cholecystitis 66, heart disease 78
Church road...	...	...	arterio-sclerosis 83
Eldorado road	...	...	nephritis 60
Glencairn park road	...	...	softening of brain 85
Gloucester road	...	...	phthisis 18, pernicious anæmia 32, senile decay 80, 82, cancer 82, phthisis 40, heart disease 56, 79, premature birth 1 month, cerebro-spinal meningitis 16, influenza 47
Great western terrace	...	...	senile decay 74, 76, congenital idiocy and paralysis 63, apoplexy 58, fractured spine and kidney disease 42
Kensington avenue...	...	...	chronic disease of pancreas 41
Lansdown crescent...	...	...	phthisis 55
Lansdown place	...	...	pneumonia 93, 87, nephritis 72, septic endocarditis 11
Lansdown road	...	...	pneumonia 86, apoplexy 68, 86
Lansdown terrace	...	...	broncho-pneumonia 11
Libertus road	...	...	paraplegia 73, bronchitis 81
Malvern road	...	...	senile decay 92, heart failure 72, pneumonia 88
Manchester street	...	...	cancer 73
Millbrook street	...	...	apoplexy 50, whooping cough 2 months, gastro-enteritis 7 months
Parabola road	...	...	typhoid fever 41, renal hæmorrhage caused by fall 65
Queen's road	...	...	cancer 60
Roman road...	...	...	whooping cough 4, cancer 70
Rowanfield road	...	...	senile decay 88, heart disease 77
Royal crescent	...	...	senile dementia 69, cancer 79, enteric fever 19
St. George's avenue	...	...	heart disease 71, pneumonia 2 months
St. George's place	...	...	cerebral softening 72, Bright's disease 59, heart disease 72, 39, 58, senile decay 80, cerebral embolism 40, catarrhal enteritis 74, tubercular peritonitis 54
St. George's road	...	...	diphtheria 3, heart disease 79, pneumonia 2 months

CENTRAL WARD.

Albion street	...	...	heart disease 59, senile decay 81
Bennington street	...	...	heart failure 77
Berkeley avenue	...	...	marasmus 2
Berkeley street	...	...	influenza 68, arterio-sclerosis 75
Berkeley villas	...	...	influenza 56
Brunswick street	...	...	ulcerative stomatitis 13 months, phthisis 48
Clarence square	...	...	apoplexy 73, influenza 79, 74
Clarendon villas	...	...	apoplexy 70, senile decay 70
Courtenay street	...	...	heart failure under chloroform 42
Dunalley parade	...	...	senile decay 98, 88, diabetes 57
Dunalley street	...	...	cancer 79, heart disease 41
Evesham road	...	...	pneumonia 84, arterio-sclerosis 66
Gloucester place	...	...	diphtheria 7 months, heart disease 24, aneurism 76
Gloucester street	...	...	heart disease 26, senile decay 80, bronchitis 74
Grosvenor terrace	...	...	heart disease 58
Hanover street	...	...	apoplexy 79
High street	...	...	heart disease 74, 42
Marle hill parade	...	...	dementia 81, heart disease 62
Marle hill road	...	...	premature birth 14 days
Monson terrace	...	...	senile decay 78
North place	...	...	tubercular enteritis 27, arterio-sclerosis 84, gangrene 85, diarrhœa 85
Northfield passage	...	...	suppurative cystitis 67
Northfield terrace	...	...	senile decay 82
Pittville circus	...	...	cardiac debility 86
Pittville circus road	...	...	diabetes 15, intestinal obstruction 95
Pittville parade	...	...	apoplexy 81
Pittville terrace	...	...	apoplexy 77
Portland street	...	...	puerperal eclampsia 21
Portland terrace	...	...	senile decay 77, diabetes 39
Rose and Crown passage	...	...	senile decay 80
Rutland street	...	...	broncho-pneumonia 16 months, cancer 62, hæmorrhage in pregnancy 40, burns and shock 41, convulsions 8 months
St. George's street	...	...	apoplexy 69, phthisis 51, 23, fatty heart 76, myxœdema 11, pneumonia and alcoholic excess 39, senile decay 101, premature birth 1 month
St. Margaret's terrace	...	...	tubercular meningitis 18
St. Paul's parade	...	...	pachymeningitis 43
St. Paul's road	...	...	pernicious anæmia 49, duodenal ulcer 64, phthisis 38
St. Paul's street North	...	...	cancer 60, pleurisy 66
Segrave place	...	...	diabetes 67, nephritis 58
Sherborne place	...	...	Bright's disease 46, leucocythæmia 57
Sherborne street	...	...	premature birth 15 days
Swindon road	...	...	cancer 60
Warwick place	...	...	apoplexy 64, 43, duodenal ulcer and operation

Wellington passage	...	...	malignant ulceration 48
Wellington square	...	...	premature birth 4 days
Winchcomb street	...	...	arterio-sclerosis 68, influenza 75
Windsor street	...	...	tabes mesenterica 8, senile tuberculosis 85

Deaths in Institutions not capable of exact reference but appropriated to this ward: senile decay 82, arterio-sclerosis 75

MIDDLE WARD.

Alexandra street	...	...	bronchitis 65, pneumonia 71
Ashford road	...	...	nephritis 54
Brandon terrace	...	...	apoplexy 53
Casino place...	...	...	premature birth 12 hours
Clarence street	...	...	cancer 48, cirrhosis of liver 47
Croft street	...	...	bronchitis 70
Dagmar road	...	...	heart disease 81, tetanus result of fall from carriage 60
Edward street	...	...	cerebral softening 83, apoplexy 72, paraplegia 76, bronchitis 2 months, peritonitis 3, intussusception 4 months, epilepsy 39
Granley road	...	...	premature birth 7 hours, congenital heart 2 months
Greville terrace	...	...	bronchitis 78, gastritis 4 days
Gratton road	...	...	cancer 62
Hall road	...	...	fatty heart 87, bronchitis 85
Halland road	...	...	perihepatitis 62
Hatherley road	...	...	congestion of lungs 91
Imperial square	...	...	influenza 69, apoplexy 87, tumour of kidney 82, pneumonia 49
Lansdown place	...	...	anæmia 68
Lansdown road	...	...	inanition 9 days, whooping cough 1 month, enteric fever 29, diabetes 76
Leckhampton road	...	...	senile decay 80, apoplexy 79, cystitis 85
Lypiatt lawn	...	...	cancer 67
Lypiatt street	...	...	senility 82, 85
Montpellier terrace	...	...	senile decay 83, 91
Montpellier villas	...	...	arterio-sclerosis 67, broncho-pneumonia 5 months
Montpellier walk	...	...	diabetes 38
Moorend road	...	...	cancer 62, pernicious anæmia 48, senile decay 79, apoplexy 74
Moorend street	...	...	phthisis 21, senile decay 88, bronchitis 21 days
Norwood street (upper)	...	...	senile decay 89, malnutrition 3 months, apoplexy 77, bronchitis 70
Painswick road	...	...	exophthalmic goitre 37, arthritis 68, chronic alcoholism 54, cancer 45, gastro-enteritis 5 months, bronchitis 82
Park place	...	...	senile decay 87
Park, The	...	...	heart disease 89, phthisis 56
Post Office lane	...	...	apoplexy 69, premature birth 24 days
Promenade, The	...	...	influenza 81, cancer 74, 84, renal calculus 73, cirrhosis of liver 69, pneumonia 41

Princes road... ..	cancer 75
Queen's parade	prostatitis 97
Regent street	apoplexy 76, uræmic convulsions 49
Rodney terrace	bronchitis 79, paralysis 76
Rotunda terrace	cirrhosis of liver 49
Royal parade	gout 75, phthisis 75
Royal Well terrace... ..	influenza 52
St. James' place	influenza 59, heart disease 49
St. Philip's street	heart disease 76
St. Stephen's road	influenza 74
Shurdington road	septicæmia 5, cancer 65
Spa buildings	pancreatitis 61
Tivoli place	cancer 49
Tivoli road	cerebral embolism 61, diabetes 58, pneumonia 48, cancer 67
Tivoli street... ..	heart disease 33, influenza 67, senile decay 90, 75, enteric fever 19
Well walk	gastric ulcer and operation 46
Wolseley terrace	diabetes 75

Deaths in Institutions.

The following deaths occurred in the several Institutions of the town, and have been referred to the outside districts or streets in the town to which they properly belong, with the exception of 9, whose former addresses could not be obtained.

THE GENERAL HOSPITAL.—Broncho-pneumonia 16 months, 2 months, 11, 48, cystic disease of kidney 48, appendicitis 20, myocarditis 61, Bright's disease 46, 75, acute miliary tuberculosis 15, 19, 8 months, 2, tabes mesenterica 8, pernicious anæmia 32, 25, gall stones and peritonitis 39, arterio-sclerosis 76, septicæmia 5, heart failure under chloroform 15, 42, pneumonia 39, 48, 4 months, heart disease 29, 55, diabetes 17, cerebral hæmorrhage 65, 64, congenital syphilis 1 month, tubercular meningitis 11, 2, 18, 16, 15 months, 2, acute rheumatism 31, exophthalmic goitre 45, cancer 49, 51, 49, 44, 44, pneumo-coccal meningitis 5, fecal fistula 58, fall and fractured skull 63, 18, hepatic cirrhosis 66, 47, 41, intestinal obstruction and operation 35, cellulitis of neck and operation 15 months, malignant ulceration 48, puerperal septicæmia 30, tetanus result of fall 60, peritonitis 3, 81, burns and shock 4, 41, 9, fractured femur 74, hydrocephalus 2, suicide by cut throat 73, chronic alcoholism 54, delirium tremens 43, malnutrition 3 months, gout and nephritis 62, duodenal ulcer and operation 57, gastric ulcer and operation 42, 39, 46, 44, pericarditis 20, intussusception 4 months, infantile diarrhœa or enteritis 23 months, 3 months, 6 months, 5 months, tubercular peritonitis 57, 11, tubercular caries of spine 45, osteo-myelitis 9, 6, pachymeningitis 43, suppurative cystitis 67, pulmonary tuberculosis 55, glioma 60.

THE WORKHOUSE INFIRMARY.—Senile decay 78, 66, 78, 77, 80, 71, 75, 74, 77, 74, 80, 85, 82, 89, 83, 70, 82, 79, 85, 80, 88, bronchitis 74, 73, gangrene of lung 74, broncho-pneumonia 60, pneumonia 52, 51, 58, apoplexy 50, 71, 80, 72, 76, phthisis 37, 51, 39, cancer 62, 37, 60, 67, 44, 43, 76, 72, 71, 70, debility 4 months, heart disease 70, 47, 42, tabes dorsalis 49, syphilis 2 months, hepatic abscess 50, puerperal eclampsia 21, gastritis 47, erysipelas 72, epilepsy 39, diarrhœa 14 months.

DELANCEY HOSPITAL.—Diphtheria 7 months, 3, septic tonsillitis 9 months, enteric fever 29.

HOME FOR SICK CHILDREN.—Tubercular meningitis 3, septic endocarditis 8.

HAY'S COTTAGE HOMES.—Arterio-sclerosis 75.

IMPERIAL NURSING HOME.—Cancer 67, septic meningitis 46, phthisis 42, heart disease 79, Bright's disease 63, pneumonia 49.

VICTORIA HOME.—Hæmorrhage in pregnancy 40, premature birth 4 hours.

EYE, EAR AND THROAT HOSPITAL.—Meningitis 31.

NAZARETH HOUSE.—Apoplexy 73.

DEATHS BELONGING TO CHELTENHAM OCCURRING IN THE ASYLUMS, PUBLIC AND PRIVATE, OF THE COUNTY.—These deaths which I have just received for the first time, and somewhat late for inclusion, have been added to our deaths for the year before estimation of the nett death-rate, but have not been referred to the localities of the town to which they may severally belong. They have been included in the tables of causes of death in accordance with the actual cause assigned for the death, and without reference to the fact of their having been of unsound mind. They are 17 in number as follows: senile decay 80, 75, 77, 64, general tuberculosis 47, tubercular psoas abscess 51, Bright's disease 67, heart disease 86, cerebral tumour 42, diabetes 54, pneumonia 60, general paralysis 50, 44, epilepsy 29.

Ward Statistics, including Birth-rates and Death-rates from all and several causes, and Infant Death-rates (all at per 1,000 living inhabitants, excepting the Infant Death-rate, which is at per 1,000 children born) for the year 1910.

	Whole Town	North Ward	South Ward	East Ward	West Ward	Central Ward	Middle Ward
Population	51,500	9,700	8,900	8,506	7,200	7,436	9,758
Birth-rate	18.0	26.3	18.1	22.9	13.2	14.3	11.6
General Death-rate	12.1	12.0	11.4	13.2	11.9	11.5	10.5
Infant Death-rate	68	82	41	51	53	56	113
Zymotic Death-rate ... ..	.49	.51	.12	.47	1.11	.13	.51
Phthisis Death-rate ... ..	.75	1.34	.44	.70	.83	.53	.30
Tubercular Death-rate (other than Phthisis) ... ..	.56	.72	.67	.82	.41	.53	.00
Cancer Death-rate (all malignant disease)	1.08	1.13	.90	1.65	.97	.67	1.12
Pneumonia, Bronchitis, &c., Death-rate (Diseases of Respiratory Organs)	1.32	1.54	1.91	1.05	1.11	.53	1.53

Local Government Board Table No. 1.—Vital Statistics of whole District of the Borough of Cheltenham during 1910 and previous 10 years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS REGISTERED.		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 per 1,000 of Population.	Under 1 Year of age		At all Ages					Number.	Rate per 1,000 of Population
				Number.	Rate per 1,000 Births.	Number.	Rate per 1,000 of Population					
1900	49,000	968	19.7	112	115	708	14.4	137	20	...	688	14.0
1901	49,500	1005	20.3	112	111	775	15.6	132	18	..	757	15.2
1902	49,700	945	19.0	114	120	737	14.8	177	22	...	715	14.3
1903	50,500	1062	21.3	91	85	666	13.1	138	23	...	643	12.7
1904	50,500	961	19.0	128	133	733	14.5	162	19	...	714	14.1
1905	50,500	995	19.7	131	131	773	15.3	177	26	...	747	14.8
1906	51,000	975	19.1	98	100	743	14.5	172	32	...	711	13.9
1907	51,000	881	17.2	84	95	738	14.5	178	30	...	708	13.8
1908	51,000	955	18.7	86	90	672	13.2	169	31	...	641	12.5
1909	51,500	949	18.4	113	119	814	15.8	180	30	17	784	15.2
Averages for years 1900-1909	50,420	969	19.2	106	109	735	14.5	162	25.1	...	710	14.0
1910	51,500	926	18.0	63	68	639	12.4	162	32	17	624	12.1

Area of District in acres (exclusive of area covered by water) ... 4,726
 Total population at all ages..... 49,439
 For names of Public Institutions receiving sick persons see pages 26 & 27. Average No. of persons per house 4.77
 Number of inhabited houses ... 10,352
 At Census 1901

Local Government Board Table IV.—Causes of, and Ages at, Death during Year 1910 in the Borough of Cheltenham.

CAUSES OF DEATH.	Deaths in or belonging to whole District at subjoined Ages					Deaths in or belonging to Localities (at all Ages).					Deaths in Public Institutions in District				
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	North Ward	South Ward	East Ward		West Ward	Central Ward	Mid- dle Ward	Residents who died outside dist.
Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	9	5	2	2	...	...	3	...	2	3	...	1	...	...
Diphtheria (including Membranous Group) ...	3	1	1	1	...	...	...	...	...	...	...	1	...	...
Croup ...	1	...	1	...	...	...	...	1	...	...	...	...	...	...
Enteric Fever ...	4	...	...	...	2	...	...	...	...	...	...	2	...	...
Epidemic Influenza ...	24	...	...	...	...	17	3	4	5	1	...	6	...	...
Diarrhoea, Enteritis and Gastro-Enteritis ...	9	7	2	...	...	...	2	1	3	1	...	2	...	...
Puerperal Fever ...	2	...	...	...	...	...	...	1	...	...	...	...	...	...
Erysipelas ...	1	...	...	...	...	1	1	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis) ...	39	...	...	...	9	28	13	4	6	...	...	3	...	...
Other Tuberculous Diseases ...	29	6	8	3	3	8	7	6	7	3	...	4	...	...
Cancer, Malignant Disease ...	56	...	...	...	...	24	11	8	14	7	...	5	...	...
Bronchitis ...	30	5	2	...	...	21	5	6	7	2	...	1	...	...
Pneumonia and Broncho-pneumonia ...	34	6	3	2	1	12	8	10	1	6	...	2	...	...
Pleurisy ...	2	...	...	...	...	2	1	...	...	...	...	1	...	...
Other Diseases of the Respiratory Organs ...	2	...	1	...	...	1	1	...	1	...	...	...	...	...
Alcoholism, Cirrhosis of Liver ...	11	...	...	...	...	9	...	2	3	1	...	1	...	...
Venereal Diseases ...	2	2	...	...	...	...	1	...	1	...	...	...	...	...
Premature Birth ...	15	15	...	...	...	...	4	1	1	2	...	3	...	...
Diseases and Accidents of Parturition ...	2	...	...	...	1	1	...	...	...	...	...	2	...	...
Heart Diseases ...	65	...	...	1	2	24	7	13	13	14	...	11	6	1
Accidents ...	13	2	2	1	1	5	8	...	...	3	...	2	...	...
Suicides ...	2	...	...	...	...	1	...	2	...	...	...	...	...	...
All other causes ...	269	14	7	3	4	73	40	43	48	33	...	45	50	10	
All causes ...	624	63	29	13	23	198	116	102	112	86	88	103	17	162	

CHELSEHAM URBAN SANITARY DISTRICT.

Deaths registered from all causes during the Year 1929, weather belonging to the District or not.

	AGE.										
	0	1	2	3	4	5	6	7	8	9	10
I. Pneumonia	1	1	1	1	1	1	1	1	1	1	1
II. Bronchitis	1	1	1	1	1	1	1	1	1	1	1
III. Diphtheria	1	1	1	1	1	1	1	1	1	1	1
IV. Typhoid	1	1	1	1	1	1	1	1	1	1	1
V. Typhus	1	1	1	1	1	1	1	1	1	1	1
VI. Cholera	1	1	1	1	1	1	1	1	1	1	1
VII. Enteric fever	1	1	1	1	1	1	1	1	1	1	1
VIII. Typhus	1	1	1	1	1	1	1	1	1	1	1
TOTAL	11	11	11	11	11	11	11	11	11	11	11

	AGE.										
	0	1	2	3	4	5	6	7	8	9	10
I. Specific Agents or Insects											
1. Cholera											
2. Typhoid											
3. Typhus											
4. Cholera											
5. Typhoid											
6. Typhus											
7. Cholera											
8. Typhoid											
9. Typhus											
10. Cholera											
11. Typhoid											
12. Typhus											
13. Cholera											
14. Typhoid											
15. Typhus											
16. Cholera											
17. Typhoid											
18. Typhus											
19. Cholera											
20. Typhoid											
21. Typhus											
22. Cholera											
23. Typhoid											
24. Typhus											
25. Cholera											
26. Typhoid											
27. Typhus											
28. Cholera											
29. Typhoid											
30. Typhus											
31. Cholera											
32. Typhoid											
33. Typhus											
34. Cholera											
35. Typhoid											
36. Typhus											
37. Cholera											
38. Typhoid											
39. Typhus											
40. Cholera											
41. Typhoid											
42. Typhus											
43. Cholera											
44. Typhoid											
45. Typhus											
46. Cholera											
47. Typhoid											
48. Typhus											
49. Cholera											
50. Typhoid											
51. Typhus											
52. Cholera											
53. Typhoid											
54. Typhus											
55. Cholera											
56. Typhoid											
57. Typhus											
58. Cholera											
59. Typhoid											
60. Typhus											
61. Cholera											
62. Typhoid											
63. Typhus											
64. Cholera											
65. Typhoid											
66. Typhus											
67. Cholera											
68. Typhoid											
69. Typhus											
70. Cholera											
71. Typhoid											
72. Typhus											
73. Cholera											
74. Typhoid											
75. Typhus											
76. Cholera											
77. Typhoid											
78. Typhus											
79. Cholera											
80. Typhoid											
81. Typhus											
82. Cholera											
83. Typhoid											
84. Typhus											
85. Cholera											
86. Typhoid											
87. Typhus											
88. Cholera											
89. Typhoid											
90. Typhus											
91. Cholera											
92. Typhoid											
93. Typhus											
94. Cholera											
95. Typhoid											
96. Typhus											
97. Cholera											
98. Typhoid											
99. Typhus											
100. Cholera											

Deaths registered from all causes during the Year 1929, weather belonging to the District or not.

Local Government Board Table V.—Infantile Mortality during the Year 1910 in the Borough of Cheltenham.

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 1 year
	All Causes { Certified ... Uncertified...	13	2	3	2	20	6	10	5	3	6	1	4	5	1
Diphtheria (including Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Whooping Cough ...	...	...	...	...	...	3	1	...	...	1	...	...	...	...	...	...	5
Diarrhoea, all forms	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Enteritis, Muco-enteritis, Gastro-enteritis, &c.	...	...	...	...	...	...	...	1	...	2	...	1	...	...	...	...	4
Gastritis, Gastro-intestinal Catarrh	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	2
Premature Birth ...	9	...	3	1	13	2	2	...	...	...	...	...	...	...	...	...	15
Congenital Defects ...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3
Want of Breast-milk, Starvation	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2
Atrophy, Debility, Marasmus	3	...	...	...	3	...	...	...	1	1	...	...	...	...	...	...	4
Tubercular Meningitis	...	...	...	...	...	...	1	...	...	1	...	1	1	...	...	...	5
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Syphilis ...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	2
Convulsions ...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	3
Bronchitis ...	...	...	...	1	1	...	2	...	...	1	...	...	...	1	...	...	5
Pneumonia ...	...	...	...	...	...	2	2	...	1	1	...	...	2	...	...	...	6
Suffocation, overlying	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Other Causes ...	1	...	...	...	1	...	...	...	1	...	...	1	...	...	...	...	3
Totals ...	15	2	3	2	22	6	10	5	3	6	1	4	5	1	...	...	63

Births in the year :—Legitimate, 866 ; Illegitimate, 60. Deaths in the year :—Legitimate infants, 53 ; Illegitimate, 10. Deaths from all Causes at all Ages, 624. Population, estimated to middle of 1910, 51,500.

WORK DONE.

SUMMARY OF ROUTINE AND OTHER SANITARY WORK DONE IN THE HEALTH DEPARTMENT DURING 1910, WITH NOTES THEREON.

REPORT BY THE CHIEF SANITARY INSPECTOR.

I herewith submit my report, as Sanitary Inspector of the Borough of Cheltenham, on the work done by the staff of the Department during 1910. During the year the places and trades over which the Town Council have sanitary control, and which are supervised by the Health Department have been systematically inspected. The work carried out includes house-to-house inspections, the inspection of houses-let-in lodgings, common lodging houses, slaughter-houses, bake-houses, cowsheds and dairies, factories, workshops, workplaces and out-workers' premises, the supervision of all drainage and sanitary work and the testing of drains and soil pipes of existing buildings, the supervision of structural alterations resulting from notices served from this department, also the disinfecting of bedding and clothing and the fumigation of rooms after infectious disease. All these varied duties have received attention by your Inspectors, and whenever insanitary conditions were found to exist such action as was necessary for their removal was promptly taken. I am pleased to be able once more to report that in most cases the owners, agents or other responsible parties have readily complied with the notices served from the department requiring them to improve the sanitary condition of their property, and that in no case has it been necessary to take legal proceedings to enforce compliance with the notices served. Following the practice adopted in previous years, a statement of sanitary operations is given in the Summary attached hereto. On reference to the table it will be seen that 2,875 nuisances were discovered in connection with 1,211 houses and premises. To abate these nuisances 945 notices were served. In addition to the notices served, 436 letters were written requiring owners of property to carry out structural amendments.

SUMMARY.

Total number of Houses and Premises Inspected	...	16096
Ordinary Inspections	... ..	2174
House-to-house Inspections	... ..	1391
Inspections of Work in progress	... ..	2532

Re-inspections	4041
Visits to Slaughter-houses	1449
" Food Shops	680
" Houses Let-in-Lodgings	113
" Common Lodging Houses	269
" Cowsheds, Dairies and Milkshops	146
" Bakehouses	96
" Workshops	820
" Schools	32
" re Infectious Diseases	553
" re Public-house Conveniences	93
" Places where Animals are kept	1707
Complaints received	399
Number of Nuisances reported	2785
" Houses and Premises dealt with... ..	1211
" Notices Served	945
" Letters Written referring to Notices	436

DRAINS :—

Drains opened and examined under Sec. 41 P.H. Act, 1875	84
Smoke Tests applied to Drains and Soil Pipes ...	256
Chemical " " " 	32
Water " " " 	679
Defective Brick Drains removed	38
New Drains laid	187
Length in yards of Stoneware Pipe Drains laid ...	3465
" " Heavy Cast Iron Pipes laid ...	1701
Manhole and Inspection Chambers provided ...	150
Intercepting Traps fixed	159
Stoneware Gully Traps fixed	529
Dip and Bell Traps removed	105

W.C.'s :—

New Water Closets built	58
New W.C. Pans of the Wash-Down type fixed ...	297
Old Pan Containers and Long Hopper Closets removed	42
Flushing Boxes fixed to W.C.'s	117
Flushing Boxes repaired	98
Water Closets and Drains unstopped... ..	63

SOIL PIPES :—

Soil Pipes and Ventilating Shafts fixed	161
New Waste Pipes trapped and disconnected... ..	199

MISCELLANEOUS :—

Rooms cleansed and limewashed	469
House Roofs, Rainwater Pipes, &c., repaired ...	218
Yards and Areas asphalted or concreted	79
Ash Receptacles (movable galvanized iron, with covers)	206
Bakehouses cleansed and limewashed	10
Slaughter-houses cleansed and limewashed	18
Common Lodging-houses cleansed and limewashed ...	3
Overcrowding in Dwellings abated	19
Samples of Water taken for Analysis	35
New Urinals provided	12
Urinals provided with a proper supply of water ...	14
Manure Receptacles built or reconstructed	12
Accumulations of Manure removed	64

INFECTIOUS DISEASES :—

Inquiries into Cases of Infectious Diseases	556
Notices to Schoolmasters and Schoolmistresses with regard to Infectious Disease	156
Notices to Parents with regard to Infectious Disease	43
Notices to Free Library with regard to Infectious Disease	2
Articles of Clothing, &c., disinfected after Infectious Disease	5049
Rooms fumigated	409
Articles of Clothing disinfected for outside Sanitary Authorities and private persons	211

Inspections.

Under the Public Health Acts and the Housing and Town Planning Act of 1909, it is the duty of every local authority to cause to be made from time to time inspection of their district, with a view to ascertain whether any nuisances exist or whether any dwelling-house is in such a state as to be unfit for human habitation. In making the inspection the officer of the local authority is required to examine the state of the dwelling-house in relation to the following matters, namely :—

- 1.—The arrangements for preventing the contamination of the water supply.
- 2.—Closet accommodation.
- 3.—Drainage.
- 4.—The condition of the dwelling-house in regard to light, the free circulation of air, dampness and cleanliness.

- 5.—The paving, drainage, and sanitary condition of any yard or outhouse belonging to or occupied with the dwelling house.
- 6.—The arrangements for the deposit of refuse and ashes.
- 7.—The existence of any cellar dwellings so dangerous or injurious to health as to be unfit for human habitation.
- 8.—Any defects in other matters which may tend to render the dwelling-house dangerous or injurious to the health of the inhabitants.

Records of the inspections of dwelling-houses have to be made and kept so as to form a continuous record of the work done under these Acts.

During 1910 the work of systematically inspecting houses under the aforementioned Acts has been carried out as far as possible, having regard to the numerous other duties which the Inspectors have to perform. The North Ward and the South Ward received chief attention last year in regard to house-to-house inspections. The total number of house-to-house inspections made during the year was 1,391. The table below gives the number of houses inspected in various streets in the North and South Wards, and shows the number of houses occupied and void, also the number of houses in which defects were found to exist, as well as the number which were found to be without any defect. It will be readily seen that in every street the majority of houses examined were found to have more or less defects in them. Of the 902 houses inspected in these two Wards, no less than 2,206 defects were discovered, giving an average of 2.44 defects in all the houses examined. If, however, those houses which were found to be satisfactory are excluded, these numbers would be increased to an average of three defects per house. The defects revealed by the inspections varied considerably in character and extent, and included all kinds of nuisances and structural faults usually found in connection with dwellings; such as damp walls and floors, leaky roofs, defective eaves spouting and rainwater pipes; walls, floors and ceilings in bad state of repair, defective drains, defective water closets, blocked drains, defective paving or unpaved yards and areas, dirty walls and ceilings, etc. In addition to the above, 2,532 inspections were made of works in progress, 4,040 re-visits to premises to ascertain if notices had been complied with, and 553 in connection with Infectious Diseases.

NORTH WARD.

Name of Street Inspected.	No. of Occupied Houses Inspected in Street.	No. of Houses in which Defects were found.	No. of Houses without Defects.	Total No. of Defects found in Street.	Houses Vacant.
Queen Street	13	10	3	24	2
Weston Cottages, Tewkesbury Road	10	10	0	46	...
Russell Place	9	7	2	14	1
Cleveland Street	54	46	8	94	1
Albert Street, St. Peter's	40	33	7	111	...
Russell Street	31	24	7	61	2
Townsend Street	63	50	13	70	1
Whitehart Street	13	9	4	26	...
Swindon Street	41	26	15	50	1
Granville Street	39	27	12	61	...
Swindon Passage	37	31	6	90	...
Milsom Street	14	7	7	27	...
King Street... ..	44	36	8	137	3
Normal Terrace	20	11	9	36	...
St. Paul's Street, South	16	10	6	41	1
Marsh Lane	33	30	3	149	...
Tewkesbury Road	56	46	10	177	...
Totals	533	413	120	1214	12

SOUTH WARD.

Name of Street Inspected.	No. of Occupied Houses Inspected in Street.	No. of Houses in which defects were found.	No. of Houses without Defects.	Total No. of Defects found in Street.	Houses Vacant.
Hermitage Street ...	30	27	3	128	...
Victoria Place, Bath Road ...	21	19	2	93	...
Bath Terrace ...	27	22	5	61	...
Bath Cottages ...	4	4	...	5	...
Upper Bath Street ...	15	11	4	37	...
Brunswick Buildings ...	6	4	2	9	...
Wakefield Cottages ...	2	2	...	4	...
Portman Terrace ...	4	3	1	9	2
Union Street, Bath Road ...	2	2	1	6	...
Lamb's Cottages ...	3	3	...	15	2
Commercial Street ...	26	20	6	69	...
Eaton Cottages ...	2	2	...	22	...
Eaton Place ...	4	3	1	8	...
Fairhaven Street ...	14	9	5	17	...
Fairhaven Cottages ...	10	8	2	23	...
Morley Terrace ...	15	13	2	25	...
Fairhaven Road ...	16	13	3	7	...
Naunton Crescent ...	90	59	31	181	...
Francis Street ...	43	32	11	113	...
Reform Place ...	4	4	...	21	1
Hermitage Street ...	16	16	...	86	...
Naunton Terrace ...	10	9	1	39	...
Exmouth Street ...	4	3	1	14	1
Totals ...	369	288	81	992	6

Houses Unfit for Human Habitation.

Within the year, four houses (three in Albert Street, St. Peter's, and one in Sherborne Place) have been certified by the Medical Officer of Health as being unfit for human habitation, under Sec. 17 of the Housing and Town Planning Act, 1909. The Town Council made an Order prohibiting the further use of these houses. The owners of three of these houses have agreed to demolish them, it being impossible for them to be made fit for dwellings. In the case of the other house, a detailed specification of the work necessary to be done to put the premises into habitable condition has been sent to the owner.

Paving of Yards.

This form of sanitary improvement is much needed, particularly in the case of the yards of small properties, and especially in a yard common to several houses. By the Housing and Town Planning Act we are required when inspecting poorer class properties, to pay particular attention to the paving and sanitary condition of any yard belonging to, or occupied with a dwelling-house. The public health value of this work is becoming more generally recognised by all who take an interest in the surroundings of the house. Without paving, the surface of the ground is worn into holes, which are puddle holes in wet weather, and at all times an unpaved surface near the common door of a house is necessarily in a dirty condition, the children run in and out many times a day, and every person of the household brings dirt into it continually. The dirt on the floor dries, and is kicked or blown about as dust, which settles on the walls, ceilings, food, etc. Unpaved yards not only conduce to dirtiness of the house, but slops or foul water thrown on to them soaks into the ground, polluting the earth. In wet weather many house walls abutting on such yards are found to be very damp, the dampness being mainly, if not entirely, due to the absence of impervious paving against the house. During the year under review 79 court yards, areas, and open spaces around houses have been paved with impervious material. Several common yards have been asphalted, adding considerably to the comfort of the people residing in the houses, facilitating

and encouraging cleanliness, and enabling rainwater which falls on the surface to drain off rapidly to a gully trap, instead of soaking into the ground.

Ash Receptacles.

The Cheltenham Improvement Act provides that every house shall have a receptacle for ashes and house refuse. The one approved by the Town Council is a covered, circular, galvanized iron receptacle, of not less than 22 gauge iron. These ash-bins are a great improvement from a sanitary point of view over the old fashioned, uncovered brick ash-pits, holding, as they frequently did, large quantities of offensive decomposable organic matter, causing serious nuisance. By the use of these receptacles the removal of ashes is facilitated, with a consequent saving of labour. During the year 206 galvanized iron ash receptacles have been provided.

Improvements in House Drains.

A very large proportion of our time is devoted to the detection of faulty drains and in supervising their repair or renewal. A good deal of the work under this heading is usually the result of house-to-house inspections, a number of those dealt with, however, are the outcome of complaints received at the office as to nuisances existing, the investigation of which frequently leads to relaying of the house drains. In consequence of written complaints alleging a nuisance from defective drainage, the Council authorised me to open and examine the drains of 84 houses. In 82 of these, insanitary conditions were found to exist, and notices under Sec 41 of the Public Health Act, 1875, were served upon the owners to repair or reconstruct the drain as required. In addition to the work done under the above Act, a good deal has been done to obtain a Corporation Sanitary Certificate, and also by verbal notice from the Inspectors. Altogether we have supervised the laying of 3,465 yards of stoneware pipes, and 1,701 yards of heavy cast-iron coated pipes, with blue lead joints, also the fixing of 159 intercepting traps, 529 gully traps, and 150 manholes and inspection chambers. In connection with this work 38 old brick drains were removed and replaced by watertight drains, and 105 defective drain traps were removed and stoneware gully traps substituted.

The Corporation Sanitary Certificate.

There has been a greater demand for Sanitary Certificates during this year than there was in 1909. There were 63 Certificates granted as against 45 in the previous year, making the total issued since the commencement of this work, 867. The inspections in connection with this work frequently revealed grave defects in the drainage system and sanitary fittings of a house, when the owner or occupier were under the impression that everything was in perfect sanitary order. The periodical testing of drains and sanitary fittings is strongly recommended as being the best means of protection against the evils which may arise from defective sanitary conditions. All who are about to take a house are strongly advised, before signing any agreement, to insist upon an up-to-date inspection, and a Certificate of sanitary fitness of the premises.

Sanitary Certificates.

Situation of Premises.	Gross Annual Value.
Avonhill, Christ Church Road	£70
Bayshill House, Overton Road	200
Bicknor, Suffolk Square	105
Birches, The, Grosvenor Place South	25
Bordeaux House, Winchcomb Street	28
Charlbury, Libertus Road	25
Clarence Square, 20	26
Clarence Square, 38	37
Clarence Street, 25	40
Clareville, Lansdown Parade	90
Clunie, Queen's Road	65
Cotswold Grange, Pittville Circus Road	140
College Lawn, 4	110
Coulter, Hatherley Road	130
Crescent Terrace, 1	55
Darley Dale, Libertus Road	45
Dewerstone House, Thirlestaine Road	160
Douglas Lodge, Vittoria Walk	65
Dunsinane, Hale's Road	26
Eildon, Lansdown Place	145
Elim Lodge, Cranham Road	38
Farnah, Pittville Gates	55

Farringford, High Street	...	...	...	...	60
Glenburnie, Western Road	...	...	...	...	45
Glendale House, Montpellier Terrace	...	...	...	...	70
Granley Villas, 1, Gloucester Road	...	...	...	...	30
Hewlett Street, 8	...	...	...	...	45
Hillsborough Lawn, Cranham Road	...	...	...	...	35
Imperial Square, 5	...	...	...	...	55
Imperial Square, 27	...	...	...	...	48
Kenilworth, Pittville Lawn	...	...	...	...	110
Lansdown Crescent, 8	...	...	...	...	40
Lansdown Crescent, 11	...	...	...	...	42
Lansdown Crescent, 16	...	...	...	...	35
Lansdown Crescent, 28	...	...	...	...	42
Lansdown Crescent, 31	...	...	...	...	35
Lansdown Crescent, 32	...	...	...	...	40
Lansdown Terrace, 9	...	...	...	...	55
Leighton Road, 14	...	...	...	...	16
Locarno, Glencairn Park Road	...	...	...	...	50
Mersea House, Bath Road	...	...	...	...	45
Montague House, Cambray	...	...	...	...	35
Montpellier Grove, 2	...	...	...	...	35
Montpellier Grove, 3	...	...	...	...	35
Montpellier Terrace, 3	...	...	...	...	60
Montpellier Terrace, 29	...	...	...	...	32
Motcombe Villas, 1	...	...	...	...	37
Ormond, Montpellier Exchange	...	...	...	...	22
Osborne Villa, Hale's Road	...	...	...	...	28
Oxford Parade, 4	...	...	...	...	50
Park Villa, Park Place	...	...	...	...	60
Pittville Parade, 3	...	...	...	...	32
Promenade Terrace, 4	...	...	...	...	60
Rayrigg House, Bath Road	...	...	...	...	75
Rosenho, Moorend Road	...	...	...	...	50
Royal Well Terrace, 3...	...	...	...	...	50
Snowdon, High Street	...	...	...	...	60
Stanley Villa, Queen's Road	...	...	...	...	48
Stoneleigh, Parabola Road	...	...	...	...	130
Sunart House, 12, York Terrace	...	...	...	...	55
Sydenham Lodge, Cranham Road	...	...	...	...	50
Tivoli Lodge, Tivoli Road	...	...	...	...	85
Vineyards, The, Gloucester Road	...	...	...	...	35

Slaughter-Houses.

The number of private registered slaughter-houses remains as last year, namely, eighteen, and to these 1,449 visits were paid. The majority of these visits have been made during the latter part of the afternoon or in the evening, so as to enable us to examine the animal carcasses and their internal organs during, or shortly after, the slaughtering has taken place, and before the removal of the carcasses to the butchers' shops. In some 225 instances the organs of animals were found to be affected with some parasitical or local affection, and these were in each case destroyed. The bye-laws as to the limewashing of walls and removal of garbage, offal and skins, have on the whole been fairly well carried out.

List of Butchers who Regularly used the Abattoir during the Year.

General Butchers.

Name	Situation of Premises
Mr. S. J. Burrows	... Charlton Kings
Messrs. Collins & Co.	... 278, High Street
Mr. G. M. Davis	... 4, Rotunda Terrace Montpellier Street
Messrs. A. D. & D. Downham	61, Upper Bath Road
Mr. E. T. Drew	... 95, Winchcomb Street
Mr. G. Dickenson	... Prestbury
Mr. G. Hannis	... 307, High Street
Mr. J. Hayward	... 2, St. Mark's Emporium, Gloucester Road
Mr. L. James	... 21, Upper Bath Road
Mr. P. M. Nash	... 402, High Street
Mr. F. W. Pleydell	... 288, High Street
Mr. H. T. Pryer	... 308, High Street
Mr. J. Smith	... 276, High Street
Mr. Taylor ...	... Cheltenham
Mr. G. Willis	... Regent House, Swindon Road

Pork Butchers.

Name	Situation of Premises
Mr. F. P. Carrick	... 294, High Street
Mr. J. Major	... 41, Upper Bath Road
Mr. T. Mills	... 222, High Street
Mr. A. Smith	... 280, High Street
Mr. J. W. T. Jackson	... 243, High Street and 22, Winchcomb Street
Mr. L. Giles	... 76, Tewkesbury Road
Messrs. Locke & Sons	... 17, Clarence Street

**Number of Animals Slaughtered in the Abattoir
during 1909 and 1910.**

	1909		1910
Beeves	773	.....	879
Calves	964	.....	976
Sheep	3329	.....	3935
Lambs	444	.....	538
Pork Pigs ...	1118	.....	975
Bacon Pigs ...	200	.....	188
	-----		-----
	6828		7491
	-----		-----

**Unsound and Diseased Meat, etc., destroyed last
year as unfit for the food of man.**

6 carcasses of beef—seriously affected with tuberculosis
 2 forequarters of beef—localised tuberculosis
 8 bacon pigs—seriously affected with tuberculosis
 1 pork pig—seriously affected with tuberculosis
 2 pork pigs—septic peritonitis
 2 sheep—anascara
 3 sheep—liver flukes and emaciation
 1 box of cod fish—unsound
 1 box of haddock—unsound
 1 box of tripe—unsound
 225 livers, lungs, or other internal organs of animals,
 which were on examination found to be locally diseased, were
 surrendered and destroyed. The total weight of meat, fish,
 and unsound food destroyed was 3 tons 14 cwts. 2 qrs.

Inspection of Food Shops.

The various butchers', fishmongers', greengrocers' shops and other places where food is sold, were frequently inspected during the year. Several lots of unsound meat, fish and fruit were submitted for our inspection; in each case the articles submitted were carefully examined and sorted if it was necessary, the unsound or unwholesome food being in all cases voluntarily surrendered by the tradesmen for destruction. The following table gives some information as to the number of shops devoted to the preparation or sale of food in this town:—

Bakers' Shops	...	...	...	...	...	55
Butchers' Shops	...	...	...	...	...	65
Confectionery and Sweet Shops				...	...	110
Dairies and Shops where Milk is sold	...				...	66
Fish and Chipped Potato and Faggot Shops	...				...	18
Fish Dealers	...	...	...	...	...	21
Fruiterers' and Greengrocers' Shops	...				...	81
General Shops	...	...	...	...	...	42
Ice Cream Shops		...	...	...	...	6
Provision Dealers' and Grocers' Shops					...	128
Restaurants	...	...	...	...	...	12
Tea Rooms	...	...	...	...	...	9
Tripe Shops	...	...	...	...	...	4

Offensive Trades.

The offensive trades carried on in this town are few in number. The trades in operation here, which are in the statutory list of offensive trades, are 2 fellmongers, 1 tallow melter, 18 rag and bone dealers, and 16 fried fish shops. The bye-laws regulating these places have been on the whole well carried out, although it has been necessary to occasionally call attention to the desirability of removing garbage, etc., regularly, and for the thorough cleansing of the floors and pavements at the close of each working day.

Dairies, Cowsheds and Milkshops.

Under the Dairies, Cowsheds and Milkshops Order, Cowkeepers and Purveyors of Milk are required to be registered by the Town Council. At the present there are upon the register 66 milkshops and 16 farms. These have been systematically inspected, and at the last inspection there

was very little cause for complaint at the milkshops, the regulations being generally carried out satisfactorily. Eight applications to be registered as dairymen and purveyors of milk were received during the year, the premises of the applicants were inspected as to their sanitary condition and suitability for carrying on this trade. Seven were ultimately registered, the remaining one withdrawing his application on account of the unsuitability of his premises for carrying on such a business.

Common Lodging Houses.

The Common Lodging Houses now on the register number seven, an increase of one over last year. The additional lodging-house is an entirely new building, consequently it is much better in some respects, particularly the heating and lighting, than any of the older lodging-houses. These places have been frequently inspected by the Inspectors. The bye-laws and regulations relating to this business have been well carried out, and there has been no cause for complaint against any of the keepers, the houses on the whole being well conducted, clean and orderly. The following table gives the names of the keepers and situation of the Common Lodging Houses in the borough, with the number of lodgers they can accommodate.

Name.	Situation.	Number of Lodgers.
F. T. Agass ...	20 & 21 Stanhope Street...	21
J. Biddle ...	40 Stanhope Street ...	10
Mrs. A. A. Evans ...	Cumberland Cottage, Grove Street...	23
Mrs. A. A. Evans ...	Cumberland House, Grove Street...	31
Alfonse Meulbreuck, jun.	Cumberland Villa, Grove Street...	21
Alfonse Meulbreuck, sen.	2 & 4 Grove Street ...	28
Mrs. M. E. A. Jackson.	Rowton House, Grove Street...	46
	Total ...	180

Inspections under the Factory & Workshops Act.

As usual, a good deal of time and attention has been devoted to the inspection of workshops, workplaces and out-workers ; a number of workrooms not previously inspected have been added to the register. The Local Authority is the authority responsible for the sanitary condition of workshops, workplaces, and the homes of out-workers in their district. "Sanitary Conditions" include (a) cleanliness, (b) overcrowding, (c) ventilation, (d) drainage of floor of workshop in which any process is carried on which renders the floor liable to be wet to such an extent that the wet is capable of being removed by drainage, (e) sanitary conveniences.

There are 465 workshops on the register, to which 719 visits have been paid.

Cleanliness.—Eighty-two workshops were found to require the ceilings or walls, or both, cleansed and whitewashed. The necessary cleansing has been carried out in every case.

Overcrowding.—Four workrooms were found to be badly overcrowded. Notices were served on or representations made to the responsible persons, and the overcrowding has been abated. Forty-five workrooms were measured up and cards setting forth measurements have been supplied to the occupiers stating how many persons could be employed in each room.

Ventilation.—Only two workrooms were found to be insufficiently ventilated, and these have been provided with suitable inlet and outlet shafts.

Drainage of Wet Floors in Laundries, etc.—The floors of these places were found generally to be in a satisfactory condition.

Sanitary Conveniences.—Three workshops were found to be without proper sanitary conveniences, and 34 were found to have unsuitable or defective sanitary arrangements, suitable and sufficient accommodation has been provided where necessary, and the defective water-closets have been repaired and put into good sanitary condition.

Our attention has been called to the following defects in factories and workshops by H.M. Inspector of Factories :—

Three workshops ; whose walls and ceilings were in a dirty condition. These have been cleansed and whitewashed and notice to that effect has been sent to the Factory Inspector.

Outworkers.—The names and addresses of 170 outworkers were received from their employers. The object of visiting outworkers' premises is to control the conditions under which certain specified classes of work is done in the homes of the outworkers. The powers given aim at the prevention of homework being carried on as a means of livelihood in dwellings which are injurious or dangerous to the health of the workers themselves. This may arise through overcrowding, want of ventilation, defective drains, or other insanitary conditions. The homework in this district consists mainly in the making, cleaning or altering of wearing apparel, and any other work incidental thereto.

Last year 179 visits were paid to the various homes in which work is carried on, and 38 sanitary defects were discovered and rectified. It is pleasing to note that in the majority of instances the work is carried out under the most satisfactory conditions. In no instance was any case found where wearing apparel was being made, cleansed or repaired in a house whilst any inmate was suffering from infectious disease. Nor did any case require action to be taken to obtain an order prohibiting homework being done in an infected home.

REPORT ON THE ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901, IN CONNECTION WITH FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of Inspections.	No. of Written and Verbal Notices.	Number of Prosecutions.
Factories (including Factory Laundries.)	24	12	Nil
Workshops (including Workshop Laundries.)... ..	719	65	„
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	86	7	„
Total	829	84	„

2.—DEFECTS FOUND.

Particulars.	Number of Defects found	No. of Defects remedied.
Nuisances under the Public Health Acts :		
Want of cleanliness	82	82
Want of ventilation	2	2
Overcrowding	4	4
Other nuisances	38	38
Sanitary accommodation {insufficient	3	3
{unsuitable or defective	34	34
{not separate for sexes		
Total	163	163

3.—HOME WORK.

Lists received from Employers.

Nature of Work.	Twice in the year.		Once in the year.	
	Lists.	Outworkers.	Lists.	Outworkers.
Making and Altering Wearing Apparel...	27	164	27	170

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.—(1).	Number.—(2).
Dressmakers	92
Tailors	60
Laundries	93
Bootmakers	41
Milliners	25
Bakehouses	55
Miscellaneous	99
Total number of Workshops on Register...	465

5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories ...	Nil
Failure to affix Abstract of the Factory and Work- shop Act (s. 133)	12
Notified by H.M. Inspectors	3
Reports (of action taken) sent to H.M. Inspectors	3
Underground Bakehouses (s. 101)	9
Certificates granted during the year	Nil
In use at the end of the year	9

Bakehouses.

The number of bakehouses on the register is 55. Of these 46 are above ground and 9 are underground. The underground bakehouses have all been certified by the Sanitary Authority as being suitable with regard to their construction, lighting, ventilation, water supply, drainage, and in all other respects, having been extensively altered to the satisfaction of the Corporation, to meet the requirements of the Factory Act of 1901. One small bakehouse has been done away with and a new one on modern up-to-date lines has been built to take its place. The whole of the bakehouses have been kept under supervision, and were found to be kept in a cleanly and satisfactory condition.

A. E. HUDSON, MEM. ROYAL SAN. INST.,

Chief Sanitary Inspector.

**Further Report upon the Private Slaughter-Houses
existing in Cheltenham and their
required Abolition.**

In previous reports upon this subject I have shown that the abolition of private slaughter-houses in favour of the use of a public abattoir has been agitated in Cheltenham for over 30 years by succeeding Medical Officers of Health. In those reports full allusion has been made to the sanitary deficiency occasioned in this, or any town by the existence of a number of such slaughter-houses, situated as they are, in close relationship to dwelling-houses, in such positions that they must be approached from the public streets, and consisting, as they for the most part do, of old buildings that were not originally intended for the purpose and are unsuited for it, being mere makeshifts as compared to the clean, airy, well-lighted, well-appointed and secluded apartments of the public Abattoir.

There remain 18 private slaughter-houses in Cheltenham, every one of which is deficient in some particular, and most of them in several particulars. We have bye-laws to regulate their use, which prevent them being such filthy places as they otherwise would be, but the bye-laws do not touch many of the radical points, which make these places when taken together a blot upon the public health administration of the borough. Neither law nor bye-law gives power to alter the position of these places. If a new slaughter-house be built it must not be within 100 feet of a dwelling-house, but this regulation does not apply to old places. There is only one private slaughter-house in Cheltenham, of the 18, that is not well within this distance. In most instances, houses back or abut upon the slaughter-house, or closely surround it, so that the sounds from these places must be readily heard in neighbouring houses, and even some of the sights seen from their windows. Nor in the matter of unsuitability of structure, whether in regard to the actual slaughter-house or its accompanying lair, can amendments be made under the byelaws. The cleansing of floor and walls can never be so perfectly carried out as to prevent a proportion of putrescible material being left behind, as not one of these private places has the easily washable walls of white glazed bricks, such as those at the public Abattoir, nor are their floors so well laid.

Neither is there a water supply laid on in pipes under pressure, which, with the employment of a hose, renders cleansing so quick and easy in the public building, nor an equal mode of drainage. And none of these required provisions can be compelled under any law or regulation that at present exists.

Slaughtering takes place in the private slaughter-houses at any time convenient to the occupying butchers, who are not required to give any notice of when they are about to slaughter, and hence the inspection, which is so necessary at the time of slaughter for the detection of disease, can only be of a partial nature in the 18 private places, especially as there is no special Meat Inspector here, the work having to be done as only one part of the multifarious duties of a general Inspector of Nuisances, and requiring his attention at unusual hours, as late in the evening.

The number of private slaughter-houses existing in one town and another, however, is unequal, and not in proportion to the population. Some towns of good size are favoured in having only one or two, or perhaps none at all. The town of Hereford is an example. This difference must have arisen from the fact that at the passing of The Towns Improvement Clauses Act, 1847, there happened to be few slaughter-houses in Hereford, and some other towns, to place on the register, and in the course of time some of these fell out of use, and a public Abattoir having been provided, this took their place and prevented the establishment of others. But in Cheltenham there were a large number to be registered.

After 1847 no slaughter-house could be established in an urban district without the licence of the Local Governing Council, and these licences being granted for a term could readily be extinguished when that term was at an end. The private slaughter-houses that cannot be so extinguished being those in existence before 1847, which the law at that date required to be registered. The intention of this law was good, but its effect was most unfortunate. The legislators of the time seem to have forgotten in causing the registration, and by that means the recognition, of unsuitable buildings, that old unfit buildings do not die out as do ill qualified medical men, or dentists, or midwives that it may be imperative to place upon a first register, but that the unfit buildings are liable to remain whilst generations of men pass, and prove

difficult and expensive to be dealt with at any after time, as indeed is the actual case with these old registered slaughter-houses.

To the numerous slaughter-houses that had to be registered here, and of which there are 18 now remaining, were afterwards added a considerable number that were held upon annual licence. The latter, however, have all passed out of being, the licences having ultimately been withdrawn.

It is now twenty years since the Cheltenham Public Abattoir was erected. The Town Council decided at that time to build a public Abattoir that should supply the needs of all the butchers in the town, and plans were prepared to this end and the permission of the Local Government Board obtained for the borrowing of some £12,000, wherewith to carry these plans into execution. The plans are still in hand, and the power of borrowing and spending this money I believe still holds good. The Abattoir that was actually erected twenty years ago consists only of a first portion of the entire scheme and cost between £2,000 and £3,000.

After this small Abattoir was built in Cheltenham, it was found that there was something else besides its building that should from the outset have been taken into consideration, this being how to bring the butchers to use it when built. It appears to have been thought that when the Abattoir was ready, the butchers would leave their private places and gladly come to the Abattoir on account of being a more sanitary place, which also provided convenience for inspection of all meat. This, however, proved to be a mistaken idea. The convenience of having a slaughter-house adjoining the shop outbalanced the butcher's appreciation of a more hygienic place, and the inspection of all meat at the time of its slaughter, being apt to bring considerable losses to the butchers, had an additional effect in preventing them coming to the Abattoir.

However honest the butcher's intention, there is no public compensation to him for his loss, such loss by destruction of diseased and unsound meat being considered a liability of his trade. The fact that he often buys diseased animals in open market under the usual rules of an auction sale, which require the purchaser to take the risks of imperfections in the article sold, is unfortunate for him, and in this connection the rules

of auction seem unjust and to require alteration, because the feeder and seller of the animal has the better chance of being able to judge of its health, and should certainly share in any loss to the extent of at least one-half. That the public should pay compensation to the butcher or farmer, or both, when meat which was prepared to be eaten is found to be unfit for that purpose, is seen to be of doubtful expediency when carefully examined. It touches a large principle, namely, the responsibility of private ownership. If compensation be paid out of public money to the producer of bad meat, why not also to the producer of other bad food materials that have to be destroyed, bad potatoes for example? When the meat is bad it is not just or moral to sell it as good, and this possible injustice is properly prevented, and that is all that is done in inspecting and seizing diseased and unsound meat. It is not difficult for butchers and farmers to assist themselves in this business by making an insurance against possible losses, and perhaps this is their proper course.

Finding that the butchers did not come to the Abattoir, excepting some of those who held private places on annual licence, who came in when the licences were no longer granted, the Town Council began to enquire as to any power that could be obtained that would be operative to bring in the rest of the butchers, and do away with the old private registered slaughter-houses. It was now comprehended that before spending the large sum of money necessary to complete the Abattoir, it would be well to ensure that it would be used, and the object of abolition of the old places be compassed as a result of the provision, especially as even that portion of the Abattoir already built was not being used to its full capacity.

There were but two methods by which any powers could be obtained that would operate in the required direction, (1) To promote a private Bill in Parliament containing strong and comprehensive compulsory powers. (2) To obtain powers through the Local Government Board by a Provisional Order made by that body, such powers being those which the Board felt themselves competent to allow. Recourse was had to the latter mode which was cheaper than for the Corporation to go themselves direct to Parliament.

It is so long ago as 1896, or fifteen years, that the Cheltenham Corporation obtained this Provisional Order, whose crucial powers in connection with the closing of registered private slaughter-houses are as follows ;—

- (1) The Corporation may from time to time by written notice to the owner and occupier of any registered slaughter-house within the Borough, which from its situation or construction is, in the opinion of the Corporation, injurious to the public health, require that the premises shall cease to be used as a slaughter-house on and after such date (not being less than six months from the service of such notice) as may be specified in the notice, and no person shall after such date, slaughter in the way of trade any cattle, horse, sheep or pig, on the said premises.
- (2) The Corporation shall make compensation to the owner and occupier of any registered slaughter-house who shall be injuriously affected by any requirement of the Corporation under sub-division (1) of this article, such compensation in case of difference to be settled in manner provided by the Public Health Act, 1875 (*i.e.* by arbitration).

The experiment of putting this Provisional Order into operation was made in respect of four minor slaughter-houses, and in connection with the compensation clause, exorbitant claims were made, particularly on the part of the owner, who pretended that the fact of his building having been registered as a slaughter-house gave him a vested interest which had no relation to the actual value of the building or buildings, although as a matter of fact neither he nor his predecessors had spent anything more than a trivial sum upon them in placing in them the appliances of the trade. Thus in one instance the sum of £600 was demanded by the owner for compensation for the removal of the building from the register of slaughter-houses, when the actual value of the freehold of the whole property was judged by an estate agent not to exceed £100. The matter was referred to arbitration and of course the sum adjudicated was greatly less than that claimed. The Corporation had offered the owner £264 without prejudice, and the arbitrator in the end awarded him £198.

The prospect opened up by this experience of the cost of closing the larger private slaughter-houses, together with the fact of the butchers and slaughter-house owners getting themselves represented upon the Town Council with a view of making the best of the position in this matter of compensation, have acted as a preventive of further action by the Corporation to close the remainder of the private places by exercising the powers of the Order.

I find in my Annual Report for the year 1899 the following paragraph, indicating my opinion of the position at that date, and it has not altered greatly since.

“The powers we obtained some few years ago for closing private slaughter-houses have proved to be insufficient for the object. In the first place, by the wording of the Provisional Order the operation of the Order is confined to a ‘registered slaughter-house within the Borough, which from its situation or construction is, in the opinion of the Corporation, injurious to the public health.’ This definition admits of any amount of argument, and can never be sufficient to close all the slaughter-houses, which is what is required. The after clause giving compensation to both owner and occupier is a further insuperable obstacle, for if compensation had to be paid for the larger slaughter-houses at anything like the rate claimed by the owners of the few minor places we have tried to close, the cost to the public would be so great that the Corporation might be excused for not facing it. The claim of one owner is fully six times the value of the freehold of the yard and all the buildings it contains. It could never have been contemplated by the legislature, which authorised the registration of existing slaughter-houses forty years ago, that the fact of their registration would be used as a lever on the part of the owner to extort an exorbitant rent, out of all proportion to the intrinsic value of the property, and ultimately to make a claim against a public body desirous to stop the use of the place as a slaughter-house on public health grounds, such claim representing that exorbitant rent capitalised at twenty years’ purchase. The equity and morality of such a claim is not patent, and that the Act which ordered the registration of slaughter-houses

intended to place such a monopoly in the hands of the butcher or owner is incredible. It is exceedingly desirable, in order that there may be a proper inspection of cattle and meat, that the numerous private slaughter-houses be abolished in favour of central abattoirs, but it will be necessary to obtain much stronger legal powers than any we possess before we shall attain to the desideratum in Cheltenham."

In later years we have added something to our former knowledge and experience of this subject.

The existing laws and regulations as to slaughter-houses only apply to urban districts, which enables a butcher whose slaughter-house has been closed to go just over the borough boundary and open a slaughter-house which is entirely free from regulations and restrictions. Further, there is no hindrance to several persons using in common the same private slaughter-house in the town. These two facts taken together tend to defeat the effort to get the butchers into the public abattoir by closing their private places, with the result that the cost incurred and the effort made are liable to prove vain and bootless. This in fact has been the case in several of the instances where the slaughter-house was closed under the Order, or being an annually licensed place had its license withdrawn. The butchers either went out of the borough to slaughter, or got permission to use another private slaughter-house within the borough bounds, or imported dead meat from the market of a neighbouring town where inspection of meat receives slight attention.

Consideration of all these points would seem to show that, as in the case of the milk supply, an action is required by the passing of a general law, which would require to be introduced as a Government measure, and that nothing short of this can suffice to bring about the closing of private slaughter-houses and the general use of public abattoirs, with the abolition of the nuisance, public inconvenience, impropriety, and danger to public health of the former, and the centralisation of a trade that requires keen public supervision, the assurance of better treatment to animals about to be killed, the certainty of inspection, the discovery of all diseased and unsound meat, and the cleanly conduct of the whole business, which

are the characteristic advantages of a well appointed and well managed public abattoir.

Apart therefore from the continuous inspection of private slaughter-houses, and of the meat killed therein and at the existing public abattoir, which will be made in future as heretofore, effective as the available staff will permit—a large weight of diseased meat being annually discovered and destroyed here—the Cheltenham Corporation can do no better than petition the Local Government Board to introduce a Bill into Parliament at the earliest convenient moment, which will bring about the desirable changes above suggested.

J. H. GARRETT,

Medical Officer of Health.

To the Public Health Committee,

December 19th, 1910.

**Report upon the Housing (Inspection of District)
Regulations issued by the Local Government
Board under the Housing and Town Planning
Act, 1909.**

I have had under consideration these Regulations and the accompanying letter recently issued by the Local Government Board, and find that all the recommendations contained in these Regulations have for years been in active operation in Cheltenham, and my Department contains copious records of the work done in the various directions indicated. At every fortnightly meeting of the Public Health Committee my agenda paper has contained the items arising out of the inspections of house properties in which any action on the part of the Committee was required, and the whole work has been summarised in my Annual Report. The service of notices in connection with houses and properties in an insanitary condition owing to defects of structure and want of sanitary conveniences, including those detailed in the Local Government Board's recommendations, and others not so included, has been incessant and is not diminishing. The record kept of this work in our books is full and complete, and I do not propose to alter it to bring it into verbal agreement with the prescription of the Board since it fulfils all the requirements of that prescription. In Cheltenham there are districts of small houses, some of considerable extent, and the worst streets in these have always received a special and most frequent attention. The class of property in these streets is so low that new defects are of constant recurrence as the result of wear and tear, and although it may be said that the general condition of the whole of our poorer houses has been immensely improved by the work of the last twenty years, without re-inspection at short intervals there would quickly be a decadence to bad conditions. Thus in our poorest streets six months suffice to ensure the discovery of a fresh crop of defects requiring to be remedied by new notices to abate and remedy the conditions of nuisance thus constituted.

In the course of the past score of years certain old rows of houses, and a good many separate houses, have been closed as unfit for habitation, and some of them have happily passed completely out of existence, whilst others have been altered

and renovated. From time to time a house is found that has so fallen into bad repair, or is otherwise so wanting, that a closing order can be made out against it, and in this connection we are assisted distinctly by the new power of the Housing and Town Planning Act, which does away with the necessity of taking the matter before the Magistrates and enables action to be taken for promptly closing the house, where urgently required, without the long notice with opportunity to the owner to imperfectly patch up the property, which was formerly required, the owner's interest being still well guarded. The opportunity assured in this way to the Sanitary Authority, to prescribe the alterations and amendments to be carried out before the house can be again inhabited, is of the greatest value. Owing, however, to the frequent action taken to cause repairs under Sections 91, 41 and 36 of the Public Health Act, 1875, and of Sections 27 and 28 of the Cheltenham Improvement Act, 1889, it is only rarely that the chance of closing a house as unfit for habitation occurs. It is only when a house is bad enough to prevent the repairs being executed whilst the house be still in occupation that the powers for closing can be applied, and this latter condition is prevented by the minor repairs constantly demanded. Any house that has ever been discovered that could be said to be in a condition unfit for habitation has always been instantly represented as such, and I do not remember any instance when the representation was not followed by closing, this being effected most usually by order.

I regret that there are so many houses in this borough of a size too small for healthy occupation by a family, and in our case the question of housing the poor properly chiefly touches those houses, which have a great tendency to become overcrowded by their being let to a tenant with a large family. These houses cannot be closed as unfit on account of their size so long as one or two persons find sufficient cubic space within them. All that can be done is to ask the family to cease overcrowding, but the difficulty of finding sufficiently large houses to accommodate, healthfully and comfortably, families consisting of parents and several children, at a rent that is within the means of the tenant to pay, constitutes here as elsewhere the crux of the housing question. The cubic sleeping space usually taken as the minimum for occupation,

without the result being considered a case of overcrowding, is 300 cubic feet per adult and 150 cubic feet per child under 10 years old. There are always cases existent in Cheltenham of overcrowding according to this standard. At most meetings of the Public Health Committee such cases are represented as requiring notices to abate, but only the most marked cases are so represented. Of course this conventional measurement is only a convenient minimum of space and quite twice as much is not more than enough. In better class houses the bedroom for a single person commonly measures 2,000 cubic feet, or more. The more keen oversight of new buildings now practised is fortunately preventing more of such small houses being built.

I place before you a special list of houses under £16 a year rental, which is being used for house-to-house inspection and which includes 7,000 houses, and in connection with this list it is my duty to report that although the Inspectors have a good hold of their districts, and an intimate knowledge of the existing condition of the properties in question, and do as much as they can, they cannot do more than their time allows. In my opinion the house-to-house inspection should be more frequently done, and this would involve the appointment of another Inspector. Many authorities are appointing additional Inspectors in connection with the requirements of the new Housing and Town Planning Act, and I would particularly commend the magnitude and importance of this work to those members of the Council who a short time ago voted to reduce the staff of the Health Department by one Inspector,

J. H. GARRETT,

Medical Officer of Health.

Nov. 14th, 1910.

The Production of Milk.

The production of milk is still not generally satisfactory, being infinitely too carelessly performed in dirty surroundings by the cow keepers. This by no means applies with equal force to every case. In some instances though the conditions are not model, considerable care is taken to keep the cows and the places clean, but in other cases the expenditures recently made in improving the sheds, though very great improvements in their way, are largely nullified by the continued bad tending on the part of the occupier. It is the same as with many dirty and neglected dwelling-houses, the fact of the landlord being called upon to make them sound does not ensure a sanitary condition in the face of a tenant who neglects to keep them clean. The filthy condition in which cows are commonly kept is the result of bad management and effort directed towards an inadmissible economy in labour and litter. The price of milk has recently been raised from 3d. to 4d. per quart, presumably on the pretext that our regulations lead to a greater expense in production, and were the considerable additional profit obtained really applied to the more cleanly production of the milk, the result would be an immense improvement, but I regret to report that no such thing is happening, generally speaking. Every considerable dairy of cows when kept within a shed requires a man or youth to be continually employed in the care and keeping of the cows and the place, to prevent them getting dirty, with a constant supply of good clean litter and the perpetual removal of stained litter and dung. Whenever cows are kept in sheds this will continually have to be compelled, and it looks as if in certain instances the lesson would have to be instilled by a public prosecution, which one is loth to recommend on account of the ruinous effect it must have upon the cow keeper's trade.

An easy and undoubted partial remedy is to be found in keeping cows out of doors. The old prejudice in favour of boxing up cows in overcrowded, shut-up sheds dies hard, but is I believe in process of decay. Another large milk producer of this locality has this last winter followed the example of Mr. Wood, whose action I mentioned in my last Annual Report, and kept his cows in the open field by night and day, excepting when undergoing the twice in 24 hours process of milking. I gather that the general objection to this plan

being more generally adopted lies in the inconvenience of having to fetch the cows in to milk them, in the dark of the early winter morning. But this really is of slight consequence in comparison to the fact that by keeping cows out of doors you ensure an infinitely greater degree of cleanliness of their bodies. A somewhat similar complaint arose at first in connection with the use of open-fronted sheds, namely, that on a frosty morning it was so cold for the milkers. As to the condition of the cows, it is coming to be recognised that their bodily condition of health is better when the cows are kept in the open air than when kept shut up, the cow's natural coat of hair accommodates itself to the circumstances and the cow derives no harm from exposure to any ordinary degree of winter cold when sufficiently fed. Experiments made in Scotland, as to the yield of milk by cows, have shown that the comparatively warm temperature of a closed cowshed does not increase the quantity of milk, and nearer home we have the positive assertion of those keeping their cows in open-fronted sheds, or entirely in the field, that the yield of milk is no less, whilst, unless the ground be very bare indeed of grass, the economy of victualling ought to be considerable when the cows are kept in the field, and I have been told by a cow keeper that it is so, at all events during a considerable part of the winter months.

The Infectious Diseases Hospital at Cheltenham.

The Hospital which bears the name of the Delancey Fever Hospital by reason of having been originated as the result of a bequest by the late Miss Delancey, serves Cheltenham and the small adjoining communities of Charlton Kings and the Cheltenham Rural District as the hospital for isolation of infectious diseases. To meet the requirements of Cheltenham it has been much enlarged since first founded, and the money for its building has been supplied by private munificence throughout. This has resulted in a saving to the ratepayers of Cheltenham, who otherwise no doubt would have had to defray the cost of building an isolation hospital. But the management of such an institution by a body other than the Town Council cannot be considered satisfactory, unless it be brought into line with the management of infectious diseases generally. All the advisory and executive powers, and

the day-to-day management of the infectious diseases occurring in the town are in the hands of the Medical Officer of Health, and it is advisable that he should have the same advisory and supervisory powers in connection with the isolation hospital. This I have strongly recommended, and declared myself willing to fill the post of professional adviser to the Managing Committee of the hospital, and that of supervisor or superintendent to the hospital's interior management, in accordance with the usual practice of other towns, and as specifically recommended by the Local Government Board. The Members of the Trust, in whom is invested the management of the hospital, have not yet come to this way of thinking, but I believe that circumstances are bound to bring them to it in the end.

Recently some impossible propositions were made as to the position in relation to the hospital to be occupied by the Medical Officer of Health of Cheltenham, and the whole subject being apparently so ill understood, I have stated my intention of presenting an explanatory report for the better information of all concerned.

The Medical Inspection of School Children.

The work in this connection done in Cheltenham last year was similar to that done the year before, and we got no further as by making a commencement in the direction of treatment of defects found. During some months the views of the School Medical Officer appeared to be in conflict with those of the Committee as to the relative status of all persons engaged in the work, and especially as to the necessity of every nurse employed by the Education Committee acting under his supervision in the manner prescribed by the Board of Education, the Committee, for some years prior to the commencement of medical inspection, having employed nurses without any medical supervision or connection, who reported upon medical matters direct to the Committee. With the establishment by the Education Committee of a medical department, the continuance of the employment of nurses here to act independently in the same schools was not possible, and, in view of the clear pronouncement of the Board of Education made through their Chief Medical Officer, I believe the Committee has at last come to see that the whole medical

business of the Education Department must be carried out under one professional supervisor, who should have the authority required to fill the position.

Up to the present time the Act which made medical inspection of school children compulsory is only permissive so far as arrangements for the treatment of discovered defects are concerned, but the fact of the inspection itself being merely a matter of record, and a very costly one, and the absurdity of discovering defects without making effort to remedy them, is likely to compel action everywhere in the direction of treatment, and I believe this must be the immediate result in Cheltenham.

Diphtheria and Bacteriological Methods.

Since the note which I put in my last year's Annual Report, upon Diphtheria and Bacteriological methods, I have made a further study of this subject. This has quite convinced me that the bacteriological diagnosis of Diphtheria by taking material from the throat upon swabs of cotton wool for the discovery of the microbe, is not at all to be relied upon as a general procedure for differentiating dangerous Diphtheria from other conditions of throat, which latter are neither of moment from the point of view of infectiousness, nor from that of danger to life. If the microbe commonly associated with Diphtheria and which is supposed to be readily recognised by its morphological appearance, and mode of growth upon artificial media, is the cause of Diphtheria, then it is still evident that it is not the sole cause, or even the principal cause. Because the distribution of this microbe is extremely wide, whilst cases of Diphtheria are only occasional, and human throats contain the microbe quite commonly without producing sign or symptom.

Although the study is so incomplete that the declared habitat of this microbe hitherto has been practically confined to the tissues of living animals, it is evident from the ease with which it may be cultured upon various nutrient media that it must have a wide separate existence from animals, and be of frequent growth and occurrence upon three-quarters of the prepared food substances commonly kept in the pantry or larder of dwelling-houses. We have had evidence of its growing in milk; why not therefore upon milk puddings and blanc-mange, also why not upon jellies, soups, gravies, and

some cold cooked vegetables, all these things when left to rest for a time grow various microbes and why not that of Diphtheria, especially if your cook or scullery-maid happen to be subject to sore-throat ?

It must be taken that ordinarily, at most times, and with the vast majority of persons, free exposure to the effect of this microbe does not result in the development of Diphtheria. And no better speculative reason for this has so far been proposed than, that ordinarily the fluids and tissues of man contain an anti-body which prevents the development of Diphtheria.

The proposition of mopping throats with the view of taking charge of persons in whose throat this microbe is found, and incarcerating them until by subsequent moppings their throats may cease to yield the microbe, is not at all a practical proposition for general application, and no rule can be made for its application specially until we have a much greater certainty of knowledge upon the whole subject. Considering the great uncertainty by which the matter is surrounded, the practice of swabbing throats has been carried to unreasonable lengths that no likely result could justify, and the exaggerated advocacy of the practice has unfortunately affected the public mind to such a degree as to have created a demand that a considerable proportion of the population be locked up, pending the issuing of a certificate to show that their throats are free from the microbe of Diphtheria.

The general infectiousness of Diphtheria has been much exaggerated. This is quite plainly shown by the study of the history of the 600 cases notified during the last 10 years in this town, and the same study tends strongly to prove that the swabbing of the throats of contacts with cases of Diphtheria, whether school children or others, in the way recently advocated and practised, is ordinarily useless, notwithstanding its great inconvenience. The advantage of keeping cases of Diphtheria in hospital for many weeks after the symptoms of the disease have disappeared, simply because their throats are found to contain the microbe, is also as strongly denied by the fact of 300 cases having been discharged from the Delancey Hospital here, as soon as restored to apparent health, and without any reference to their throats containing microbes, with the result that in no one instance has any additional case of Diphtheria been known to have been caused, or even suspected to have been caused, by so discharging them.

Deaths and Districts.

The attempt being made in different places to refer deaths to the Districts to which they properly belong seems to be done upon various principles, and perhaps it is time that the Registrar-General took the matter in hand as he proposes to do, in conjunction with the Local Government Board, during this next year, by sending local Medical Officers of Health intimation of deaths occurring beyond their borders but which belong to them. Considerable circumspection, however, will be required for this to be done correctly, as the question of when a person belongs to a place and when he ceases to belong to it may be the subject of various estimates, and apart from a neighbouring population who make use of a local hospital situated near at hand but not in their district, the reference to other districts of persons dying in any particular district must be a very uncertain proceeding in its relation to correct statistics, and in view of the often great differences that occur between census and census, in the population upon which the death-rate is calculated, it is questionable if it be worth while making a troublesome work of referring a few deaths from one district to another to which they are supposed to rather belong. There is a certain moving population who do not rightly belong to any particular place but who, if asked, would probably give a place, whether of nativity or best knowledge, to which they would say they rightly pertained; and what of the inmates of boarding schools and resident colleges, and the national services, and servants? Of the latter class for instance, at the present time if a servant came to a Cheltenham house from Northleach and sometime afterwards died in that house, her death would almost certainly be accepted as pertaining to Cheltenham, but if she died in the hospital it is very likely she would be referred to Northleach to which she would say she belonged. In their bearing upon the death-rate of a district, usually a short term of residence should suffice to make a person belong to the district where death takes place, certainly not longer than is sufficient to allow the influences of the place to have effect, and to avoid worse errors than those that would be occasioned by referring every death to the district in which it takes place, the interchange must be limited, and great care taken to have the proper domicile discovered.

Sale of Food and Drugs Act.

Return of Articles submitted to the Public Analyst during the year 1910. with the results of the analyses.

(G. Embrey, Esq., Gloucester, Public Analyst.)

Samples submitted by Superintendent A. W. Hopkins.

Quarter ending March 31st.

Articles submitted.	Result.
2	Samples of Cream, all genuine.
2	Whiskey, all genuine.
2	Pepper, all genuine.
2	Coffee, all genuine.
4	Tea, all genuine.
5	Butter, all genuine.

Quarter ending June 30th.

1	Tea, genuine.
3	Butter, all genuine.
4	Pepper, all genuine.
8	Milk, 7 genuine, 1 sample with 8.4% of added water; fined £3 and costs 18/6.

Quarter ending September 30th.

2	Whiskey, all genuine.
2	Gin, all genuine.
2	Butter, all genuine.
2	Demerara Sugar, all genuine.
8	Milk, 7 genuine, 1 sample with 21% of adulteration; fined £1 and costs £1 os. 6d.

Quarter ending December 31st.

2	Coffee, all genuine.
2	Gin, all genuine.
2	Pepper, all genuine.
5	Butter, all genuine.
6	Whiskey, all genuine.
8	Milk, 7 genuine, 1 sample with 8% of added water; fined £1 and costs 18/6.

ANNUAL REPORT

UPON THE

Meteorology of Cheltenham,

BY

MR. A. C. SAXBY,

F.R. MET. SOC.;

BOROUGH METEOROLOGIST.

FOR THE YEAR 1910.

LATITUDE $51^{\circ} 53' 45''$ N. LONGITUDE $2^{\circ} 3' 21''$ W.
HEIGHT OF BAROMETER ABOVE MEAN SEA LEVEL, 206ft.

THE INSTRUMENTS ARE OF THE HIGHEST QUALITY
AND HAVE BEEN VERIFIED AT KEW.

*To the Mayor, Aldermen, and Councillors of the
Borough of Cheltenham.*

GENTLEMEN,


I have pleasure in submitting to you my Annual Report for Cheltenham during the year 1910, being the 33rd year during which records have been taken.

The observations have been taken twice daily by myself or qualified assistant. The Sunshine Recorder at Pittville has been very carefully attended to by the Head Gardener, the Charts being brought in with regularity.

The weekly Reports have been sent to the Royal Meteorological Society as formerly and also been published in the "Cheltenham Examiner," "Gloucestershire Echo," "Cheltenham Chronicle," and the "Looker-On."

I beg to tender my best thanks to those observers who have sent me returns from various stations over the county, and to all who have assisted me in the work.

I am, Gentlemen,


Your obedient Servant,

AUSTIN C. SAXBY,

F.R. MET. SOC.,

February, 1911.

Borough Meteorologist.

THE METEOROLOGY OF CHELTENHAM.

Abstract of Meteorological Observations taken by A. C. SAXBY, F.R., Met. Soc., Borough Meteorologist.

Latitude 51° 53' 45" N. Longitude 2° 3' 21" W. For particulars see next page.

1910. Month.	Corrected Mean of Barom. 9 a.m. & p.m. At sea-level.	AIR TEMPERATURES.								Relative Humidity at 9 a.m. and p.m.	Rainfall.		Sunshine HOURS
		Means of				Absolute Max. and Min.					Total fall	No. of Rainy Days.	
		Dry Bulb 9 a.m. & p.m.	Max.	Min.	Date.	Max.	Date.	Min.	Date.				
	INCHES.	°	°	°	°	°	°	°	%	IN.	HOURS		
January	29.865	38.9	44.0	33.7	2	56	27	16	93	2.66	15	68	
February.....	29.625	42.2	47.5	36.8	7	53	12	29	86	3.37	20	81	
March	30.175	43.2	50.5	35.8	30	59	16	28	84	0.68	8	165	
April	29.846	46.0	52.7	39.2	21	62	3	29	81	2.16	19	125	
May	29.900	53.4	61.6	45.2	28	75	9	30	82	1.17	15	221	
June.....	29.890	59.7	67.3	52.0	20	78	15	44	82	3.07	11	185	
July	29.860	59.1	65.6	52.5	14	75	19	45	84	2.04	11	138	
August.....	29.880	60.6	67.1	54.1	11	75	23	49	86	4.21	17	142	
September ...	30.222	55.8	63.0	48.5	28	73	21	35	88	0.74	5	125	
October.....	30.000	51.4	56.5	46.3	2	67	21	40	89	2.76	12	58	
November ...	29.628	38.1	44.0	32.2	1	56	22	22	89	3.80	16	84	
December.....	29.723	43.8	47.8	39.7	16	54	28	25	89	4.41	23	39	
Means	29.968	52.6	55.6	43.0	20	78	27	16	86	31.30	175	1431	
	1	2	3	4	5	6	7	8	9	10	11	12	

NOTES ON THE TABLES.

(See previous page).

COLUMN 1 is the mean reading of the Barometer at 9 a.m. and 9 p.m., corrected for temperature—32° Fahrenheit—and reduced to mean sea-level, the instrument being kept at 397, High Street, 206 feet above mean sea-level.

COLUMN 2 is the means of Dry Bulb readings in the screen, both at 9 a.m. and 9 p.m.

COLUMNS 3 and 4.—The maximum and minimum thermometers are read and set at 9 a.m. and 9 p.m., and entered to the same day. Instruments and screen are in Montpellier Gardens, 216 feet above mean sea-level.

COLUMN 9.—The relative humidity is calculated by dividing the elastic force of aqueous-vapour at the temperature of the dew-point for the month by that corresponding to the actual temperature of the air.

COLUMN 10.—The rainfall is taken at 9 a.m. and the total entered to previous day. The rain gauge, placed within the enclosure at Montpellier Gardens, is of Snowdon pattern, 5 inch size, the rim being one foot above the ground.

COLUMN 12.—The amount of bright sunshine is registered by an improved Campbell Stokes Recorder, which is mounted on the top of Pittville Pump Room. Prior to 1908 Jordan's Twin-cylinder Recorder was used.

WIND.

Analysis, with percentage, of the observations of the Wind for the year:—

	Calms.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
January ...	6	4	0	2	7	4	22	12	5
February ...	5	1	0	3	7	11	23	3	3
March ...	9	3	2	4	14	6	8	7	9
April ...	4	0	0	3	9	8	14	6	16
May ...	9	6	6	1	6	4	11	7	12
June ...	11	0	3	1	4	15	15	5	6
July ...	3	1	3	8	2	1	15	19	10
August ...	7	0	1	3	9	5	26	11	0
September...	12	1	7	4	4	5	6	8	13
October ...	9	2	8	8	12	0	8	4	11
November .	12	3	2	5	10	4	8	11	5
December...	2	0	1	6	14	14	17	5	3
Totals ...	89	21	33	48	98	77	173	98	93
Percentages	12·3	2·8	4·5	6·5	13·4	10·5	23·7	13·4	12·7

REMARKS.

JANUARY.—The year opened with Barometer high and steady but very undulating from the 7th. On the 23rd a rapid fall of more than 1.3 inch occurred and recovery was not completed until the 23rd. Range of pressure 1.829 inch. Temperatures were mild for the earlier part of the month, becoming seasonable round the 19th till Wednesday the 26th, when 16° of frost was registered in the screen. After this, temperatures continued mild to end of month, the mean being c.6° above the normal. Winds were high, mainly from the South and West, but none at all from the North or North-East. Gales were experienced on Sunday and Monday, the 9th and 10th. These were followed on the 11th by a light snowstorm, and on the 22nd another light fall of snow occurred. The month was on the whole a dry one, being only 0.43 inch above the normal rainfall. Of bright sunshine there was a good supply throughout the month, 27% of the possible amount for the time of year being recorded at Pittville.

FEBRUARY.—Following on the disturbed conditions of the atmosphere at the end of January, February's pressure was light and erratic. On the 13th and 15th the Barometer was unusually low, and these were succeeded by a gale on the 14th and 16th, accompanied by heavy falls of rain. Range of pressure . . . On the 20th a severe thunderstorm was experienced in this district. For the rest of the month mild temperatures and long drizzles were the features of the weather, the mean of temperature being 2.8° above normal, and the amount of rain 1.29 inch above normal. Winds again mainly light South-West, and still none from the North-East. Considering the mild, damp weather, this month's record of bright sunshine is very fair, 29% of the possible amount being recorded.

MARCH.—The Barometer this month, varying from 30.601 to 29.626, contrasts very favourably with the unsettled conditions of the year to date. With few exceptions the pressure was great and steady, one notable exception being round the 9th. Thunder, etc., occurred in this district on the 8th, followed on the 9th by a gale of wind. The month with this exception was warm, dry and sunny, 45% of possible bright sunshine was recorded, 1.09 inch less rain than normal, mean temperature 1.5° above normal, all pointing to pleasant weather. Winds were light and generally Southerly.

APRIL.—April opened with a steady fall of Barometer and Thermometer, accompanied by rain on the 5th, which was first rain experienced for 17 days, and then a partial recovery of Barometer, falling again on the 13th to a low point. Much rain fell at this period and on the 16th a heavy thunderstorm passed over. Thereafter the pressure increased but irregularly. One hailstorm was experienced on the 25th, and distant thunder heard. Rain totals 0.22 inch above normal and temperature averages 0.5° below the normal. Winds were mainly North-Westerly. Bright sunshine was very little at commencement of month but increased considerably after the 10th, the total registered was 30% of the possible amount. The feature of this month was the number of light rain showers having bright and sunny intervals.

MAY.—On the whole a bright, dry month. The pressure decreased irregularly until the 7th, rose on the 9th, only to fall again on the 12th. From this date it rose steadily. Range of pressure Temperatures very pleasant during the day but sharp frosts were registered during the nights, Whit-Monday (16th) being exceptionally hot. This hot spell was broken on Whit-Tuesday by a heavy thunderstorm, followed by strong winds and gales from varying points of the compass. On the 23rd another spell of hot weather commenced, nearly 14 hours of bright sunshine being recorded on that day. The temperatures on that day were hottest for the month, *viz.*: 75° in the shade and 132° in the sun. Rain fell chiefly in heavy showers, and 0.78 below the normal amount, the intervals were bright and sunny and as much as 46% of the possible amount was recorded.

JUNE.—Atmospheric pressure, varying from 30.390 to 29.407, was low and slightly undulatory until the 15th. From then until the 20th it was at its highest and steady, after which it fell slowly to end of month. Temperatures were hot at first, this spell of summer weather being broken by a thunderstorm of great severity which hung around this district on the 7th and 8th. The storms seemed to come from all points of the compass, accompanied by heavy rain. After this the weather again became mild and pleasant until the 24th, when the Southerly winds greatly increased in force, bringing a preponderance of clouds and rain which lasted to the end of the month. The average temperature was 1.5° above normal and amount of rain 0.83 inch above normal, but as much as 38% of possible sunshine was recorded.

JULY.—This month opened with heavy rainstorms accompanied by thunder, after which the low Barometer of June recovered. This month is characterised by the number of days of protracted light rains, keen winds and very sparsely intermittent sunshine. Range of pressure 0.816 inch, average temperatures 2.1° below the normal and rain 0.55 inch below normal. In spite of small rainfall the amount of sunshine recorded was 28% of possible amount. Winds mainly Westerly.

AUGUST.—Weather in August was dull and cold until the 9th, by then the Barometer had recovered, but fell sharply again on the 14th. Following on this rapid fall, a thunderstorm of some severity passed over between 12.30 to 2.30 a.m. of the 15th, accompanied by rain quite torrential. Heavy rain was also experienced in the early morning of the 19th. On the 20th the spell of warm, bright weather broke up and the dull, heavy days returned. Distant thunder was heard on the 23rd, and on the 28th a heavy fall of rain occurred, totalling more than 1.25 inch between 9 a.m. and 9.m. Only on four days did the amount of bright sunshine reach double figures, and the total recorded was 32% of the possible amount, rain was 1.53 inch in excess of normal, but mean temperature also normal.

SEPTEMBER.—The month opened with a high and steady Barometer, which was well maintained until the 26th. Up to the 10th the temperatures were high during the day, plenty of sun and dry. From the

10th to the 20th dull weather succeeded, on the 21st cold nights again set in and on that date the first frost of the season was registered. The change in atmospheric pressure on the 26th produced warm, sunny weather, 72.7° being registered in the screen on the 28th. Rain fell on only five days this month, total being as much as 1.71 inch below the normal. Temperatures high, a little above normal, and amount of sun good, being 33% of the total possible.

OCTOBER.—The pleasant conditions of last month disappeared rapidly with a sharp fall in Barometer and Thermometer. The pressure increased on the 4th again, and undulated unremarkably after that until the extreme end, when the Barometer fell nearly an inch. Heavy winds from varying quarters disturbed the Barometer on the 2nd, 12th, and 26th, and on the 1st thunder was heard. Although the winds in the latter part of the month were mainly North and North-East, the temperatures were mild, in fact 3.3° above the normal. Mild, dull, overcast month with normal rain, but only 18% of the possible amount of bright sunshine was recorded.

NOVEMBER.—The month opened with a low but erratic Barometer and heavy storms, Thermometer also low. On the 6th a thunderstorm, accompanied by unusually heavy rain, relieved these conditions and a steady rise in Barometer produced a rise in temperature. On the 13th it fell to lowest point of year without much effect on the weather, and then gradually rose till the 16th when it rose rapidly to normal position. This rise was accompanied by frosty weather, 16° of frost being recorded on that day. Thaw set in again on the 23rd, and light showers were the chief feature. Winds were mainly South-Easterly and temperatures cold, being more than 5° below the normal for the month. Rain was 1.16 inch in excess, and sun recorded 33% of the possible. Light snow fell on early morn of the 26th.

DECEMBER.—Barometer throughout the month was unusually erratic, varying from 30.484 down to 28.845 inches, although on the whole very low, in this respect contrasting with the Thermometer which was high, the mean temperature being nearly 5° above the normal. The chief feature of the month is the abnormal rainfall, over two inches in excess of the normal. There was not one fine day until the 18th, and then the average had been one inch for over six weeks. As a consequence, record floods were experienced from the Severn and Avon, although of course Cheltenham completely escaped any inconvenience. Temperatures again mild, nearly 5° above the normal, and frost in the screen was registered on one day only. Winds mainly Southerly, some very heavy, especially round the 13th and 15th, when gales from that quarter were experienced in the early mornings. Sunshine a very poor supply, the month being very dull, damp and muggy.

COMPARATIVE TABLE OF HUMIDITY AND BRIGHT
SUNSHINE REGISTERED AT INLAND STATIONS
DURING THE YEAR 1910.

The lower the percentage of humidity the drier is the atmosphere.

HUMIDITY % AT 9 A.M.	STATION.	ABOVE MEAN SEA-LEVEL.	RAIN- FALL.	BRIGHT SUNSHINE HOURS.
			Inches	
88	Bath ...	84—Feet	39·6	Total—1578
85	Belvoir Castle ...	276 "	28·9	" 1456
84	Berkhampsted ...	397 "	31·4	" 1348
86	Birmingham ...	542 "	31·3	" 1113
83	Buxton ...	997 "	48·7	" 1423
84	Cambridge ...	43 "	22·8	" 1501
83	Cheltenham ...	216 "	31·1	" 1431
	Cirencester ...	446 "	33·2	" 1360
82	Coventry ...	309 "	29·6	" 1303
90	Nottingham ...	85 "	24·7	" 1285
81	Oxford ...	212 "	29·0	" 1376
82	Sheffield ...	450 "	31·0	" 1264

RAINFALL IN THE COUNTY OF GLOUCESTER IN 1910.

STATION.	OBSERVER.	RAIN- FALL.	RAINY DAYS.
		Inches.	
Cheltenham ...	A. C. Saxby ...	31·30	175
Bourton-on-the-Water ...	E. W. Kendall ...	35·56	198
Great Barrington ...	H. J. Barrett ...	31·44	192
R.A.C., Cirencester ...	W. Kershaw ...	33·21	204
Berkeley ...	S. Watkns... ..	34·91	177
Clifton... ..	R. F. Sturge ...	44·69	221
Prestbury ...	J. W. Guy ...	35·00	195