[Report 1919] / Medical Officer of Health, Cheltenham Borough.

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Borough of  Cheltenham.

Annual Reports

OF THE

MEDICAL OFFICER OF HEALTH

AND OF

THE SCHOOL MEDICAL OFFICER

OF THE

BOROUGH OF CHELTENHAM

For the Year 1919

TOGETHER WITH THE

REPORT OF THE CHIEF SANITARY INSPECTOR.

"Salus Populi Suprema Lex."

PRINTED BY ORDER OF THE SANITARY AUTHORITY.

CHELTENHAM:

G. F. POOLE, PHŒNIX PRESS, BENNINGTON STREET.

Borough of Cheltenham.

MEMBERS OF THE

PUBLIC HEALTH COMMITTEE.

COUNCILLOR ERNEST ROGERS *(Chairman)*.

THE MAYOR (ALDERMAN J. D. BENDALL).

ALDERMEN E. C. GREEN, C. H. MARGRETT, J.P.,
R. STEEL, J.P.

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Borough Surveyor—MR. J. S. PICKERING.

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Assistant Inspectors—
C. W. CLIFFORD. F. JACKETT. F. R. JEFFORD.

Disinfector—W. TOWNSEND.

Clerk—MURIEL J. LEWIS.

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

Assistant Medical Officer—
I. J. McDONOUGH, L.R.C.P.&S., D.P.H.

INDEX.

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

Ladies and Gentlemen,—

I have pleasure in presenting my Annual Health Report for the year 1919.

The Ministry of Health now prescribes the form of the Medical Officer of Health's Annual Report, supplying the heads under which the Report is to be written, and the arrangement of the following pages is in accordance with this form.

As the Report was not printed during the war years 1916-1918 I have here included such statistics of those years as may be serviceable hereafter for reference and comparison.

I have the honour to be, Ladies and Gentlemen,

Your obedient Servant,

J. H. GARRETT,
Medical Officer of Health.

April 12th, 1920.

Natural and Social Conditions of the District.

Cheltenham lies in a pleasant rural district to the West of the Cotswolds, whose escarpment passes down the County of Gloucester making a line of hills close behind the town. The hills edge the valley of the Severn and the town thus occupies a fair site at a nearest distance of seven miles from this river and at an altitude of 150—300 feet above its stream, the centre parts being about 200 feet above mean sea level. The small stream called the Chelt courses its way through the centre of the town and two other streams flow near its opposite extreme boundaries, all going towards the Severn at a fair gradient and indicating a perfect natural drainage, along the main lines of which it is easy to convey the waste waters from the houses by sewers. The more open aspect of the site is towards the West and North-west, the hills circling about it on the opposite quarters, and as viewed from one or another of the neighbouring heights the ground occupied appears to be favourable and well chosen. Though the steep hills are near at hand the area occupied by the houses has no difficult gradients.

The subsoil of the ground built upon in either Lias clay, or sand overlying the clay to a greater or less depth. The level of the subsoil water in the sand generally lies well below the foundations of the houses that occupy the sandy area, and retention of water upon the clay surfaces is very little observed. The comparative healthfulness of one kind of site over the other would appear to be more a matter of idiosyncrasy than of any result capable of being demonstrated by statistics. The climate naturally does not vary greatly from that of the whole of the great Severn Valley and the other towns that lie within it. It is a comparatively soft climate as compared with the East of England. The numerous adorning avenues and trees in Cheltenham may add somewhat to this condition, by raising the humidity of the air by one or two degrees, and breaking the winds. The effect of this upon health would be as favourable for some states as undesirable for others, and it is not possible to say that the existence of the trees is prejudicial generally. Nevertheless an occasional judicious thinning to counteract the overgrowth that takes place in the course of time is to be recommended, in order that the light and ventilation be not too greatly impeded in the immediate neighbourhood of the houses. The beauty of the trees even is prejudiced by too dense a growth. Whilst the climate cannot be called invigorating many places could be mentioned where a more relaxing condition of atmosphere prevails. The subject of climate as exemplified by comparisons between one place and another in England has not been systematically investigated, but what there is to be learned from it probably affects the comfort and well-being of the body more than the death-rate. At least there is no cause of death that I am able to attribute to the climate here from my personal knowledge as medical officer of health during 28 years.

Even the poorer parts of Cheltenham are fairly widely built, there being few confined courts, back to back houses, or other conditions of overcrowding of population upon area. Many of the existing houses are however too small.

The quality of the population, as affecting the death-rate in comparison with the death-rate of other districts, is adverse in Cheltenham on account of the average age of the population being higher than the average for the whole country, and the life expectancy correspondingly low. This affects the number of deaths from one or two special causes in particular. There are more women than men in the town, according to the last census, by approximately 3 women to 2 men. The aspect of the town as generally viewed, with its good streets and large houses, is misleading in regard to the quality of the population generally, there being extensive poor quarters where the houses are in greater number and the inhabitants count up to a higher total than in the widely laid-out residential parts. Occupation and wage-earning possibilities were formerly precarious here for the poorer inhabitants, there being no large factories or works occupying any large number of employees. Latterly there has been some introduction of industries into the district which seem likely by their extension to affect this condition, and produce an effect upon the birth and death-rates.

The evidence of actual want or extreme poverty in Cheltenham is considerably less at the present time than in times past but within memory, and the general conditions of life have without doubt been considerably improved during the last quarter of a century.

Gratuitous medical relief is represented by the Cheltenham General Hospital, the Cheltenham Eye, Ear and Throat Hospital, the Hospital for Children, and the Delancey Fever Hospital, together with the Workhouse Infirmary and the usual out-door medical relief of the Cheltenham Union. The School Clinic and the Maternity and Child Welfare Centres are additions of recent date that provide public medical inspection and treatment for the young, and the District Nursing Association is an important voluntary medical agency for dealing with the sick and supplying midwives for lying-in women, as well as a small lying-in hospital, the cost being in chief part defrayed by moneys derived from private sources. Long established Benefit Societies and the medical provision of the Insurance Act further enable poor persons to obtain medical aid at a cheap rate. All these institutions being largely utilised, it may be truly averred that Cheltenham is unusually well provided for in the matter of medical attendance.

Vital Statistics.

Area of Municipal Borough...		acres, 4,726
Rateable Value (including £7,613 agricultural land)		... £335,062
Estimated Population at middle of last year ...		... (?)
Population at the 1911 Census		48,942
Persons per Acre in the Borough at Census 1911 ...		10·3
Persons per separate Family		4·31
Death-Rate, 1919 (crude)	per 1000 living inhabitants	15·27
,, ,, (corrected) ...	,, ,,	13·29
Average Death-Rate for 10 years prior to war (crude)	,,	13·8
,, ,, ,, ,, (corrected)	,,	12·0
Zymotic Death-Rate for 1919	,,	·28
Average Zymotic Death-Rate for the previous 10 years	,,	·86
Pulmonary Tuberculosis Death-Rate, 1919 ...	,,	·84
Average Pulmonary Tuberculosis Death-Rate for the previous 10 years	,,	·84
Birth-Rate, 1919	,,	14·9
Average Birth-Rate for 10 years prior to war ...	,,	17·7
Infant Death-Rate, 1919, per 1000 children born ...	...	85
Average Infant Death-Rate for the previous 10 years	...	87

The Number of Inhabitants.

There was some doubt as to our exact population before the war, even the last census returns being known to have been erroneous owing to a number of persons having escaped being counted to serve the purpose of a party that stood to lose income by the population rising to 50.000. Since the beginning of the war it has been practically impossible to estimate the population correctly. Some thousands of men went away to the war, a portion never to return; the women, always preponderant here, consequently became much more so. For birth-statistics a different estimate of population had to be taken as a basis than that required for death-statistics. There was a considerable transference of habitation from place to place owing to fear of enemy air-craft, and for other reasons, and whilst depleted of its young active workers this town experienced an unusual call upon its boarding house, lodging and hotel accommodation. At first the registration of individuals effected near the beginning of the war, and, later, the numbers indicated by applications for rationing tickets, were taken as a basis for calculating the vital statistics by the Registrar General, but the figures, for death-rates in particular, that were obtained were in my opinion indicative of the population having been estimated at too low a figure. It is not however possible to make a correct estimate by any available means at the present time, and we shall have to wait the result of the census, due to take place next year, to obtain any reliable information of the correct population of Cheltenham.

The Registrar General has sent me the following figures for use in calculating the statistics for the year 1919. Population estimated for the death-rate 44,985 and fot the birth-rate 46,863. The population at the

census of 1911 was 48,942. So that it was deemed that at the middle of last year there was a diminution of about 4,000, as compared with the population in the last census year.

Births and the Birth-Rate.

The number of the births registered in the borough in 1919 was 699, of which 629 were legitimate and 70 illegitimate. There was an increased rate of births, particularly in the last quarter of the year, and since, as a result of demobilisation and return of male parents. The number of births registered during the previous year, 1918, had been 560, which was considerably exceeded by the deaths, and gave the low rate of 11·7 per 1000 persons living. The number for last year exceeded the deaths by 12 and gave the rate 14·9 births per 100 population.

Deaths and the General Death-Rate.

The number of deaths registered in 1919 was 687, giving a general death-rate per 1000 inhabitants of 15·27 upon the Registrar General's population of 44,985. This 15.27 is the gross death-rate, which is allowed to be modified for comparison with all other death-rates of England by multiplication with the factor ·8709 to compensate for the greater age average of our population, and this being done the nett death-rate is reduced to 13.29. This compares favourably with the rate for the whole of England and Wales for 1919, which, according to the Registrar General's return, was 13.8, but was a whole point higher than the rate for the 148 towns of population 20,000 to 50,000 which was 12-6. It is this fact which causes me, amongst other reasons, to think that the Registrar General's estimate of Cheltenham's population is two low, as a statement of greater population would result in a lower death rate, and there is a jnst expectation derived from past statistics, of our death rate being no higher than that of the whole 148 towns of populations below 50,000 and above 20,000.

Infant Death-Rate.

The death-rate of infants under one year old being estimated not on the population, but upon the number of births, is exempt from the effect of mistake in estimate of population. Before the war it had been observed that where the birth-rate was high the infant death-rate was also proportionately high, and with an increased birth-rate, as the result of the demobilisation of potential fathers, it will be interesting to look for an effect upon the infant death-rate, and whether or not the tendency before observed of a high infant death-rate accompanying a high birth-rate, will be stemmed or affected by the organisations now established throughout the country on behalf of maternity and child welfare, whose main object is to save infant life and generally increase the viability of the new born. Although the highest birth-rates have been hitherto to be found amongst the poorest industrial inhabitants, where the effects of modes of life, bad feeding, want of care, and bad housing will have been chiefly operative in producing a high infant death-rate, the whole fact of a high infant death-rate accompanying a high birth-rate is not entirely explained by those factors, and may require some further working out.

The infant death-rate in Cheltenham was last year 85 per 1000 born, there having been 699 births and 60 infant deaths. The rate for the previous two years had been: 1917 66, 1918 85, and the average for the previous ten years 87. There is evidence of the liklihood of a great increase of births during the present year 1920.

There were 70 illegitimate births in 1919 and 18 deaths giving the very high death rate for illegitimate children of 257 per 1000 births, or more than three times the infant death-rate for illegitimates than for legitimates. This statement, as usual, reflects the poorer chance of life for the undesired child, and the one whose circumstances of birth are often unfavourable by reason of the mother not being in a position to enable her to give the required maternal care.

The Zymotic Disease Death-Rate.

From the seven chief zymotic diseases: Smallpox, Enteric Fever, Scarlet Fever, Diptheria, Measles, Whooping Cough, and Infantile Diarrhœa, there were deaths only from diarrhœa and diphtheria, seven from the former and six from the latter disease. These thirteen deaths give the Zymotic Death-rate of ·28 per 1000 population for the year 1919. This is very low, the average for the previous ten years being ·79. The year was indeed very favourable in regard to the presence of infectious diseases of all kinds, with the exception of influenza.

The Tuberculosis Death-Rate.

The number of deaths from Pulmonary Tuberculosis was 38 for the year under report, and for all other forms of tuberculosis 13. The death-rates were ·84 and ·28 per 1000 respectively for Pulmonary Tuberculosis and other forms, and for all tuberculosis cases together 1·13. This is moderate and about the average for the previous ten years.

The Cancer Death-Rate.

The high average age of our population gives us a comparatively high cancer death-rate. Last year it was 1·55. The withdrawal from our population of some thousands of persons of non-susceptible age for war purposes having sent it up to an average of 1·90 during the three previous years.

Respiratory Diseases Death Rate.

This includes 43 deaths assigned to Bronchitis, 44 to Pneumonia and 11 to other forms of respiratory disease. The death-rate per 1000 living in 1919 of all together was 2·2. Consideriug the prevalence of Influenza in the first quarter of the year this is not excessive.

Table XV.—Birth-rate, Death-rate and Analysis of Mortality during the Year 1919.

(Provisional figures. Populations estimated to the middle of 1919 have been used for the purposes of this Table.)

	Birth-rate per 1,000 Total Population.	Annual Death-rate per 1,000 Civilian Population.								Rate per 1,000 Births.		Percentage of Total Deaths.*			
		All Causes.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Violence.	Diarrhœa and Enteritis (under 2 Years.	Total Deaths under One Year.	Deaths in Public Institutions.	Certified Causes.	Inquest Cases.	Uncertified Causes of Death.
England and Wales	18·5	13·8	0·01	0·00	0·10	0·03	0·07	0·13	0·47	9·59	89	23·9	92·5	6·2	1·3
96 Great Towns, including London (Census Populations exceeding 50,000)	19·0	13.8	0·01	0·00	0·13	0·04	0·07	0·14	0·45	12·24	93	29·2	92·3	6·9	0·8
148 Smaller Towns (Census Populations 20,000—50,000	18·3	12.6	0 01	0·00	0·10	0·03	0·08	0·12	0·39	8·67	90	16·6	93·6	4·9	1·5
London	18·3	13·4	0·01	0·00	0·08	0·03	0·05	0·18	0·47	16·22	85	44·7	91·2	8·6	0·2
Cheltenham	14·9	13·3	0·00	0·00	0·00	0·00	0·00	0·13	0·13	10·01	85	..	..	..	..

* Non-civilians are included in these figures for England and Wales but not for other areas.

SUMMARISED RETURN OF REGISTRAR-GENERAL OF CAUSES OF DEATH IN THE BOROUGH OF CHELTENHAM IN YEARS 1916, 1917, 1918 AND 1919.

Years	1916.		1917.		1918.		1919.	
CAUSES OF DEATH.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
All Causes (Civilians only)	318	402	299	394	344	436	281	406
1. Enteric Fever	1	1	...	1	1	...	...	...
2. Small Pox	...	...	...	...	...	...	...	...
3. Measles	4	4	4	2	6	6	...	...
4. Scarlet Fever	...	...	...	...	...	...	...	...
5. Whooping Cough	...	2	1	...	...	4	...	...
6. Diphtheria and Croup	2	6	6	6	2	6	2	4
7. Influenza	3	17	2	5	62	97	19	24
8. Erysipelas	...	...	...	...	...	...	...	...
9. Pulmonary Tuberculosis ...	19	28	28	33	26	37	15	23
10. Tuberculous Meningitis ..	1	...	3	2	1	1	5	2
11. Other Tuberculous Diseases ..	4	6	1	1	7	4	3	3
12. Cancer, Malignant Disease	35	46	24	62	27	51	30	40
13. Rheumatic Fever	1	1	1	2	1	...	2	1
14. Meningitis	2	3	...	3	...	...	...	1
15. Organic Heart Disease ...	34	57	31	61	42	51	37	65
16. Bronchitis	14	11	18	22	11	14	16	27
17. Pneumonia (all forms)	26	25	28	17	24	25	20	24
18. Other Respiratory Diseases ...	4	7	5	7	4	3	4	7
19. Diarrhœa, etc. (under 2 years)...	6	2	...	3	2	1	6	1
20. Appendicitis and Typhilitis ...	...	...	...	1	1	2	2	3
21. Cirrhosis of Liver	3	3	5	1	2	2	1	1
21a. Alcoholism	...	...	2	1	...	...	...	...
22. Nephritis and Bright's Disease	9	13	11	8	8	11	8	13
23. Puerperal Fever...	...	1	...	1	...	2	...	..
24. Parturition apart from Puerperal Fever	...	4	...	...	...	3	...	2
25. Congenital Debility, etc. ..	16	7	10	3	8	9	16	13
26. Violence apart from Suicide .	9	4	7	5	5	2	3	3
27. Suicide	1	1	1	4	...	3	3	1
28. Other defined disease	124	152	111	141	104	101	89	147
29. Causes ill-defined or unknown...	...	1	.	2	...	1	...	1
Special causes (included above)								
Cerebro-Spinal Fever	...	...	...	...	...	...	...	...
Poliomyelitis	...	1	..	...	...	1	...	...
Deaths of Infants under 1 year of age								
Total	38	20	24	15	24	16	36	24
Illegitimate...							10	8
Total Births	416	344	310	262	293	267	361	338
Legitimate	381	312	264	232	270	242	329	300
Illegitimate	35	32	46	30	23	25	32	38
Population for Birth-Rate	45745		45905		47726		46863	
„ „ Death-Rate	42045		41181		42595		44985	

General Register Office. Somerset House, London, W.C.

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.

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Population... ...	51,500	49,200	49,500	49,500	49,500	49,500	?	?	?	?
Small Pox	...	...	...	...	...	...	...	...	...	...
Measles	...	34	1	17	...	6	8	6	12	...
Scarlet Fever	...	1	1	4	1	5	...	...	...	...
Diphtheria	3	...	2	3	12	7	8	12	8	6
Whooping Cough	9	3	9	...	2	2	2	1	4	...
Enteric Fever (Typhoid and Paratyphoid) ...	4	4	...	2	4	1	1	1	1	...
Diarrhœa and Enteritis in Young Children ...	9	37	4	18	13	10	8	3	3	7
Total Deaths from seven chief Zymotics... ...	25	79	17	44	32	31	27	23	28	13
Death-rate from Chief Zymotics	·49	1·60	·34	·88	·64	·63	·64	·56	·65	·28
Total Deaths belonging to District	624	696	655	743	695	789	720	693	780	687
General Death-rate ... ... (Gross or uncorrected for unusual age incidence).	12·1	14·1	13·2	15·0	14·0	15·9	17·1	16·8	18·3	15·3
Total Births belonging to district	926	937	784	784	791	772	760	572	560	699
Birth rate	18·0	19·0	15·8	15·8	15·9	15·4	16·6	12·4	11·7	14·9
Infant Death-rate per 1,000 Children born ...	68	127	66	88	86	89	76	66	85	85

The Death-Rates and Birth-Rates for years 1916-1919 are on populations estimated by the Registrar General, which were caused to be different by reason of men being withdrawn from the war but not women. Population 1916 for Birth-Rate 45,746, for Death-Rate 42,045; 1917 for Birth-Rate 45,905, for Death-Rate 41,181; 1918 for Birth-Rate 47,726, for Death-Rate 42,595; 1919 for Birth-Rate 46,843, for Death-Rate 44,985.

Sanitary Circumstances of the District.

WATER SUPPLY.—The water supply is copious, being from several sources including springs upon the Cotswolds, the upland surface waters of the River Chelt, a well in a deep sand bed, and the River Severn. The last mentioned source is used in the later summer months when required. There is a very adequate purification plant at Tewkesbury, where the water is taken from the river. Some additional purification system has been mooted for the Dowdeswell Reservoir water, on account of trouble from algal growth in the water. As an alternative to chlorination of this water to prevent the growth occuring in the pipes, the prefiltration of the water has been recommended by the Water Engineer like that carried out at Tewkesbury in the case of the Severn water.

RIVERS AND STREAMS.—The brooks which pass through and about the borders of Cheltenham are at the present time not a source of nuisance to the town. Even the Chelt which passes through its centre does not exhibit any prejudicial signs of pollution. In storm times it is charged with a certain proportion of the diluted waste waters below the town, as it is bound to be, though this occasional call is not detrimental and leads to no complaint.

SEWERAGE AND DRAINAGE.—The site of the town presents no difficult problem as regards the removal of sewage. There is now extensive plant for purifying sewage, and sewage farms for part treatment, and the complaints formerly received appear to have come to an end, and there seems no need for present further expenditure of money on this behalf. The actual condition of the sewers in the town has considerbly amended modernly, those of the North and West Wards, and those of the Tivoli district, having been to a great extent renewed, the old brick culverts being substituted by good pipe sewers, or built main sewers of lasting and perfect construction. Another district has been surveyed and reported upon for similar treatment, whilst further amendment work has proceeded continuously in every part whenever a gross defect has presented itself, a sum being inserted in the estimates of each financial year for such renewal and requirements. Great attention has been paid to individual house drains, and within the last 25 years thousands have been re-laid as the result of notices served on owners after examination of the drains under Section 41, of Public Health Act, 1875. The Sanitary Certificate of the Corporation, which may be applied for by any owner, tenant, or prospective tenant, has led to much further work in this connection, and in re-sewering the districts mentioned above a wholesale re-laying of house-drains to connect to the new sewers was required and carried out. The total result is that generally speaking the house drainage is for the greater part now satisfactory, though since the passage of time leads to the development of new defects, the efforts to maintain and amend house drains must be unending.

Excepting a few houses situated in the most remote outskirts, the sanitary system of the town is entirely one of water closets, with adequate

flushing by separate cisterns. The number of small houses using a W.C. in common has been greatly reduced, and only a few instances remain where any sort of house has not its own accommodation.

Scavenging.—The scavenging of house and trade refuse is done with regularity and sufficient frequency to avoid nuisance, and complaints in this connection are rare. Movable metal ash receptacles which constitute the most sanitary method of storing and greatly facilitate collection, are in general, though not exclusive use, and are recommended as an advance over larger built ash bins. The movable bin requires occasional renewal, and the annual number that have been furnished under notice is contained in the following Inspector's report, where will also be found the details of the Sanitary Inspector's work sammarised.

Food.

The whole subject of food has been greatly affected by the war conditions, and our former exactions in connection with an unadulterated food supply, and the laws relating thereto, have been virtually set aside or suspended by force of circumstances during the last 5 years. The Government control of food has been on behalf of quantity rather than quality. It has been a question of enough to eat for the community, and the avoidance of unequal distribution that would result in the poorer classes suffering famine by reason of the greater ability of the rich to buy in a market of limited supplies. The usual inspections, analyses and prosecutions under the "Sale of Food and Drugs Acts," are here in the hands of the Police, who should furnish me with a return of the result of analyses and prosecutions. I learn from the Superintendent that 88 samples were submitted to the public analyst in 1919, and in 4 cases adulteration of milk was established resulting upon prosecution in 3 fines and 1 dismissal.

In regard to the Milk Supply, the former conditions which had led to the passing of a "Milk and Daries Act," just prior to the outbreak of war, whose operation, such as it could have been, was suspended on account of the outbreak, cannot be said to have been amended during the war. The putting into force of the powers required for insuring a pure milk supply is still awaited, and can only take place effectually when the shortness of agricultural products is relieved by an ample supply from at home and abroad. So long as the farmers can maintain their present independence begot of a demand that is in excess of supply, and the call for milk at an exorbitant price is urgent, with fresh butter at 4/- a pound, grain at nearly £5 a quarter, and bread at 1/- a loaf, very little is likely to be done on their part to secure exemption from the proved dangers surrounding the milk supply. The proposed remedies must however be practical, and such as can be easily and certainly applied. To cause the action against tuberculosis for example, to depend upon the certificate of the Medical Officer of Health that a certain milk is causing the desease is ridiculous.

Whilst such conditions continue, as the aftermath of an exhausting war, the public individually must take the best precautions they can to avoid injury by impurity and adulteration. It may be remembered in connection with suspicious milk that heating disinfects it, and that the ordinary processes of cooking the various articles of food into which milk enters, will generally suffice for the same object. Boracic acid and other

chemical preservatives can be removed from butter, fish, and other articles by thorough washing in pure water, just before us, and the flavour of the article is improved at the same time by the process. Although present circumstances encumber tne administration of laws effecting food supply, it can be remembered that these laws are still in existence, and people who have cause to complain should not fail to do so.

The use of the Public Abattoir and Private Slaughter-houses.

The use of the public abattoir in preference to the private slaughier-houses in the town has been advocated in the pages of this report in former years, but for various reasons the use of the private places was continued, the most prominent reason doubtless being the requirement in the existing Provisional Order for owners and occupiers to be practically bought out at a price determined by an arbitrator. The prospect of large payments has deterred the Corporation from proceeding to close private slaughter-houses, to the use of which the butchers have clung on occount of their being conviently near their meat shops, and, in the hope that by retaining them considerable profit under the Order might eventually accrue.

The Government control of meat and of Markets led to our abattoir being brought into use to the exclusion of all private slaughter-houses, not only to serve Cheltenham, but also to serve a wide district around it. The very large number of animals killed in this abattoir since it has been so controlled and used has clearly demonstrated its sufficiency for the whole of Cheltenham under any circumstances, provided only that a hanging house is added to the present building. The original plans of the abattoir shewed another considerable wing containing other slaughtering apartments, which at the time of the origin of the plant might have been built at comparatively small cost. After recent experience it would appear unnecessary to complete the abattoir according to the original design, it being sufficient rather to simply build a hanging compartment, to which the carcases could be conveyed by an easily worked mechanical means from the slaughtering apartments.

The private slaughter-houses having been out of use, and it being a most desirable thing, from the public health point of view, that these should be abolished in favour of the public abattoir, it will be a great pity indeed if, at the expiration of the Government meat control, they be presently allowed to recover their old status and use, whilst the public abattoir falls back to a state of lessened activity, such as hardly vindicates the expenditure caused by its provision.

The amount of meat and other food material destroyed last year as unfit for food of man will be found in the Sanitary Inspector's Summary.

Prevalence and Control over Infectious Diseases.

Although the list of notifiable infectious diseases has been considerably extended, and now includes pneumonia, the total number of cases for the year of all such diseases being 161 was last year amongst the lowest recorded. The following table gives the notifications received in each year since notification first began, with averages for all the years with which each year's notifications can be compared.

Number of cases of Zymotic Disease notified in Cheltenham since notification began.

Year	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever	Small-pox	Erysipelas	Pneumonia	Poliomyelitis	Cerebro-Spinal Meningitis	Dysentery	Malaria	Ophthalmia Neonatorum
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	87	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	...	..	...	...	...	...
1911	77	26	34	...	...	34	...	..	...	...	...	...
1912	193	19	10	...	...	27	...	...	...	...	...	...
1913	335	49	11	3	...	45	...	4	...	...	...	...
1914	328	103	17	5	...	39	...	1	1	1	...	9
1915	218	58	7	3	...	47	...	2	18	..	...	8
1916	61	69	15	1	...	25	...	10	2	...	...	6
1917	33	105	2	1	...	15	...	6	1	1	...	3
1918	29	107	6	3	...	19	...	1	2	1	...	3
1919	28	52	8	2	...	21	34	3	...	1	3	9
Average for all y'rs	147	55	18·6	1·8	1·2	28	34	3·9	4·0	·6	3	6·3

ZYMOTIC DISEASES NOTIFIED in each month during 1919, and Numbers of cases treated in Hospitals.

Month.	Pneumonia	Measles	Diphtheria	Scarlet Fever	Enteric Fever	Erysipelas	Opthalmia Neonatorum	Malaria	Dysentery	Tuberculosis	PuerperalFever	Anterior Poliomyelitis
January	...	2	5	1	1	3	...	...	...	5	...	...
February.....	...	...	5	3	...	...	1	...	...	8	...	...
March	22	4	1	1	...	2	...	...	...	2	...	...
April	4	7	4	1	...	1	2	...	...	7	...	...
May	2	3	6	5	...	2	...	...	...	11	...	...
June	1	4	4	2	1	1	1	...	1	9	...	1
July	...	1	4	2	...	3	1	2	...	6	...	...
August	...	1	3	1	...	2	2	...	...	9	...	...
September ...	1	4	3	3	1	1	...	...	...	8	1	...
October	2	1	6	3	3	3	...	1	...	6	1	1
November ...	1	5	6	3	2	2	1	...	...	3	...	...
December ...	1	17	5	3	...	1	1	...	...	7	...	1
The 12 months Totals	34	49	52	28	8	21	9	3	1	81	2	3
Tot'l no. treated in Hospitals...	...	...	46	28	6	...	...	...	...	...	2	3

Scarlet Fever.

The varying wave of Scarlet Fever has latterly been at a low ebb. Last year was the fourth successive year during which this disease has been much below the average in Cheltenham. The total number notified in 1918 was 28, the lowest number notified in the 30 years since notification began, though the numbers, 29 for 1918 and 33 for 1917, were little in excess of this lowest number. As this disease is the one which has brought in former years the greatest number of cases to the isolation hospital, to be isolated treated and maintained during their illness chiefly at the public expense, this falling off in numbers has had a fortunate effect upon the annual expenditure of the Health Department. I do not think that anything has been accomplished in particular in the matter of improved sanitation, or dealing with the disease which has led to this happy result. It must rather be viewed as a vagary through which for the time being the Scarlet Fever infection has to a great extent died out both in amount and virulency. To arrive at an exact understanding of the cause of this, and of its former periodic greater prevalence and power might greatly

assist in preventing the disease again assuming an expensive and vital importance. Perusal of the column in the table showing its course since notification began, (and before that period there is a worse history of Scarlet Fever as a cause of death), compels the unfortunate prophesy of a return of greater prevalence within a few years. The best known method at hand to combat this lies in the isolation of every case as it occurs, and the disinfection of the infected things, for both of which there is good provision here.

Diptheria, Enteric Fever and Small Pox.

The number of Diptheria cases notified last year was not higher than the average number for the thirty years, and only half what it had been in 1917 and 1918. The eight cases of Enteric Fever were of unconnected or accidental origin and less than a third of the average annual number. Of Small Pox there has been no true case in the borough for thirteen years, though on several occasions suspicious cases have been isolated for a time as a matter of precaution where some doubt prevailed.

Measles.

This diseases was notifiable during the year under review; though I have not included it in the list of notifiable diseases, as the notification is not of so regular a kind as that of other infectious diseases. There were 49 cases notified during the whole year, which indicates that it was not an epidemic year. It has proved difficult to deal with this disease with any effect in preventing returning epidemics, which are never many years apart, and there is no disease to which young humanity is so prone. In reporting on the several epidemics that have occurred here I have had occasion to point out that the danger to life is greatest in an attack of measles for children of the tenderest age, and that every effort should be made to postpone attack during the first ten, and particularly during the first five, years of life. This can only be done by keeping yonng children out of direct contact with cases in any stage.

Infective Diseases of Brain and Spinal Cord.

Cerebro-spinal Meningitis and Poliomyelitis have been notifiable for some years, and to these has been added Polioencephalitis and Encephalitis Lethargica, which, along with Malaria, Trench Fever and Dysentery, have come into knowledge or assumed importance in connection with the late great war. Of all these acute diseases of nervous tissue Poliomyelitis has proved of most importance in Cheltenham, there having been cases in every year since 1913, with an average of about four per annum. Last year there were three. There were no cases notified of the other diseases mentioned during last year.

Pneumonia and Influenza.

The Influenza Epidemic which occurred in the latter part of 1918, and upon which I reported fully in my last Annual Report, recrudesced in the Spring of 1919, and during that year there were 43 deaths as compared with 159 in 1918. It is now well known that this epidemic of

Influenza spread through the world and was one of the most important and deadly visitations of sickness that have occurred since the great plague epidemics of the Middle Ages. The mortality, which was largely amongst persons in the prime of life of both sexes, was usually caused by a pneumonia that appeared to be symtomatic of the Influenza, and was the most definite part of the diagnosis in most of the cases that died. The Influenza fever itself varied enormously in severity, in many persons exhausting itself in a severe cold with or without a rise of body temperature, and probably many persons were fortunate in getting this cold early in the winter before the epidemic had assumed its greater proportions and effects, thereby having secured an immunity against attacks during the time the disease occurred in its more malignant form.

Presumably, in considering the advisability of causing the disease to be notified, the Ministry of Health had in view the inutility of notifying any case of cold that could be called Influenza, and ultimately made Acute Pneumonia notifiable, assuming that this would cover the worst cases of Influenza. Before the end of 1919, 34 cases of Pneumonia had been notified under this requirement.

Fearing the possible return of the disease in its virulent form in the Spring of 1920, the Ministry of Health made some preparations to meet such a contingency at an early period by advising the distribution of a circular by the various Sanitary Authorities throughout the country, and below is inserted this circular, which was printed for circulation in Cheltenham. The Ministry also had prepared a preventive vaccine to be used against possible attack of the disease, which was distributed through the Medical Officers of Health, and any medical practitioners can obtain a supply of this by making application for it.

[COPY OF CIRCULAR.]

INFLUENZA.—*As a severe type of Influenza is known to be epidemic in some parts of the world, and as a return of the terrible visitation of that disease experienced in 1918 and 1919 is feared, the public are asked to take particular note of the following*

HINTS AND PRECAUTIONS ISSUED BY THE MINISTRY OF HEALTH.

Influenza is particularly infectious during its incipient stage and while the person who has contracted it is still able to follow his avocation and to mix with his fellow-men. Almost everybody, therefore, is exposed to infection at one stage or another of an epidemic. While no certain safeguard against the disease is as yet known to exist, it is important to give attention to the following points during an epidemic wave.

PREVENTION.—Infection may be guarded against by

(*a*) Healty and regular habits, and avoidance of—(i) Fatigue; (ii) Chill; (iii) Alchoholic excess; (iv) Crowded meetings and hot rooms; (v) Unnecessary travelling.
(*b*) Good ventilation in working and sleeping rooms.
(*c*) Warm clothing.
(*d*) Gargling from a tumbler of warm water to which has been added enough permanganate of potash to give the liquid a pink colour.
(*e*) *Vaccination.*—A vaccine against influenza has been prepared by the Ministry of Health and is available for general use in the same

way as the War Office have provided similar vaccine for the troops. It is issued to Medical Officers of Health for distribution free of charge among medical practitioners within their districts, and any person who wishes to be vaccinated should apply te his private medical attendant. The purpose of the vaccine is prevention, and therefore to obtain its value it should be used *before* an epidemic occurs. It cannot be guaranteed that the vaccine will necessarily protect from attack, but there is reason to expect that if an attack occurs vaccination will do much to lesson the risk of complications.

Influenza is dangerous mostly because of what may follow it.

CURE.—In the event of an attack of influenza, the patient is advised to adopt the following measures with a view to securing a speedy return to convalescence and avoidance of complications—

(*a*) At the first feeling of illness or immediately on a rise of temperature the patient should leave his work, go home and go to bed; he should keep warm and should send for the doctor.

(*b*) On convalescence, the patient should avoid meeting-places and places of entertainment for at least one week after his temperature had become normal.

(*c*) Recovery should be fully established before return to work.

PERSONS NURSING INFLUENZA—

(*a*) The patient should, if possible, occupy a separate bedroom or a bed screened off from the rest of the room. This rule should be observed until the temperature is normal.

(*b*) The patient should be kept warm.

(*c*) All curtains and other articles which prevent a free circulation of air about the patient's bed should, as far as possible, be removed.

(*d*) Inhalation of the patient's breath should be avoided.

(*e*) A handkerchief or other screen should be held before the mouth, and the head should be turned aside while the patient is coughing or sneezing.

(*f*) The hands should be washed at once after contact with the patient.

TO EMPLOYERS.—Workers who are obviously ill should be sent or taken home at once. Their continuance at work is bad for them and dangerous to others.

Cheltenham, Feb., 1920.

Tuberculosis.

Tuberculosis cases are notified to the Medical Officer of Health, but are dealt with by the County Authorities. There is a dispensary for out-treatment in the town attended by the County Tuberculosis Medical Officer, Dr. Arnott Dickson, or his assistant. Beds for other residential treatment of county cases are available at the Cranham Sanatorium and at the Gloucester Hospital, Cheltenham cases being included. The ordering into these institutions being by the County Tuberculosis M.O.

The number of new cases notified in Cheltenham last year was 81 of which 22 were known to have died before the end of the year. In all there were 51 deaths from Tuberculosis in the year.

Tuberculosis of Lungs	- -	77 cases.
„	of other parts of body	4 „

Maternity and Child Welfare.

The business of Maternity and Child Welfare was carried on in Cheltenham in 1919, as in previous years. The arrangement includes the services of "The Cheltenham Voluntary Health Society," which entirely manages three consultation and treatment centres, having their own Medical Officers and Lady Superintendents. The Medical Officer of Health is permitted to attend their monthly meeting, but has no connection with the work at the centres. There is a Municipal Maternity and Child Welfare Committee in addition. The Voluntary Health Society is directly represented upon it by two co-opted members, and there are other co-opted members, who are for the main part ladies. This Municipal Committee appoints two lady "Health Visitors," whose duties are to visit the houses of infants and young children, give advice as to maternity and child welfare, encourage the mothers to attend the centres of the Voluntary Society, etc. These "Health Visitors" take their instructions from the Medical Officer of Health so far as their routine visits following notification of births are concerned, and the gratuitous supply of milk, but pass beyond his authority in their work at the centres. They are, as it were, lent to the Voluntary Society for their work at centres. The Voluntary Society, in return for a subscription from the Municipality, send in a quarterly report of the work accomplished at the centres, and a copy of their annual report, which I here append.

The Municipality has an arrangement with the Cheltenham District Nursing Association, whereby the Midwives of the Association, who attend a very large proportion of all the lying-in cases that occur in the town, fill up the first items of the Maternity and Child Welfare card before these are handed to the Health Visitors. The Nursing Association also agree to take into their establishment difficult cases of labour, so far as four beds will accommodate the need. Hitherto this amount of accommodation appears to have been sufficient. The call for use of these beds lies with the Association and its officials. The Association is represented upon the Municipal Maternity and Child Welfare Committee by two members.

Summary of Work of Health Visitors, 1919.

(January 1st to December 31st).

N.B.—The second Health Visitor, Miss Wood, was only oppointed in December.

No. of children visited	(a) one year and under ...	...	945
	(b) over one year	...	580
	Total	...	1525
No. of children remaining on Visiting Registers ...		...	1525
Home visits paid by Health Visitors—Miss Montagnon		...	2328
	Miss Wood Dec. 6—31		202
Home Visits paid by a Voluntary Visitor—Miss Jordan		...	468
	Total	...	2998

Health Visitors' Attendances at Centres—Miss Montagnon	...	130
Miss Wood	...	7
Talks to Mothers at these Meetings	...	70
Number of un-notified Births discovered	...	70
Children remitted to Hospitals	...	10

CASES OF OPHTHALMIA NEONATORUM VISITED. 9

All responded well to treatment except in the case of one scarred cornea. The 9 cases were all that were notified.

PUERPERAL FEVER.—Two cases were notified and enquired into specially by the Medical Officer of Health, and such action as was necessary taken in connection with the midwives and other attendants. Neither case died.

POLIOMYELITIS.—The three cases of this disease notified were similarly attended to.

INFANTILE DIARRHŒA, MEASLES, AND WHOOPING COUGH.—The 7 deaths from diarrhœa were enquired into and a few special visits were paid to measles cases. There were no deaths in the year either from measles or whooping cough.

GRANTS OF MILK.—

Carried over from 1919	3	Stopped	2	Continuing	1
To Nursing or Expectant Mothers, 1919	18	,,	11	,,	7
To Infants and Children under 5 years, 1919	18	,,	10	,,	8
Totals	39		23		16

Amount of Money spent in gratuitous supplies of milk for the year £105.

Cheltenham Voluntary Health Society.

(April 1st, 1919—March 31st, 1920).

ANNUAL REPORT.

The Committee, in presenting their eleventh Annual Report, again record a year of progress, and, though two Centres have had to be transferred to other premises, there has been no falling off in the number of attendances, in fact, it has been a record year in that respect. The number last year being 2,502, as against 4,139 this year. The number of individual children attending the centres is 598 against 409 last year.

By kind permission of the Committee of Baker Street Institute we were able to resume our meetings there last September, much to the satisfaction of every one. We are most grateful to be allowed to continue at the same rental.

It was hoped when we vacated 2, Bath Street, that it would have been possible to amalgamate with the Cheltenham Crêche, but a house, large enough for both Societies, and in a suitable position in the town could not be found. Though a Hut has been offered to us as a temporary addition we felt that the expense of moving it, doing necessary repairs, and the difficulty of heating, would not justify us in accepting the offer. Until this amalgamation scheme can be carried out, we are using premises at the Highbury Schools, Grosvenor Street.

Since attendances at the Centres have so much increased, it is exceedingly difficult for the Health Visitor to give weekly "talks," so an arrangement has been made with the Education Committee for a course of lectures to be given to the mothers at 2 Centres each week, this naturally means an extra expense. Though it is called the "Voluntary Health Society," we would like to call the attention of the public to the fact that the word "Voluntary" can only apply to the services of the helpers. Rent, medical services, and secretary's salary all mean an increased expenditure.

In October, Mrs. Mellersh, who had acted as Hon. Secretary for 2½ years, was obliged to resign. The Committee would like to take this opportunity of expressing their gratitude for her able services, and for the time and thought she so willingly gave to her work. Miss Seton, club visitor, was appointed Secretary.

Our very grateful thanks are due to the Committee of the Battledown Hospital, for the willing way in which a bed, when needed, has been available for our little ones, many of whom need treatment for short periods.

We are much indebted to students of St. Mary's Hall, for attending the Centres each week, and solving the problem of keeping the Toddlers amused, the effective way in which they did this was the greatest boon.

Towards the end of 1919, we were able to draw the allowance of sugar granted by the Ministry of Health to Schools for Mothers. This is very carefully administered, and much appreciated by the Mothers.

We have again received a financial grant from the Ministry of Health, but like most other charities our finances are not in as flourishing a condition as we could wish. The support we get from voluntary subscribers is infinitesimal, and we feel the time has come when we must ask for a much larger grant from the Cheltenham Town Council, if the work is to be expanded, as it necessarily must be.

Attendances at	Bath Street	Centre	(49	meetings)		...	...	1863
„	Clare	„	„	(46	„)	...	...	1020
„	Baker	„	„	(46	„)	...	...	1256
								4139
Visits paid by Club Visitor (since April 1st, 1919)						...	...	1854

STATEMENT OF ACCOUNTS. APRIL 1ST, 1919—MARCH 31ST, 1920.

	£	s.	d.		£	s.	d.
Balance in hand April 1st, 1919	156	4	0	Rent, Rates, and Taxes	79	19	10
Subscriptions and Donations	32	4	6	Wages	56	11	6
Grant from Board of Education	104	9	9	Fuel and Gas	5	17	7
Grant from Cheltenham Town Council ...	30	0	0	Doctor's Fees... ...	145	19	0
Sale of Drugs	103	11	0	Stationery and Postage	11	9	6½
Club Fees	15	4	7	House Expenses ...	5	8	11
Sale of Furniture ...	2	7	5	Club „ ...	8	9	6
Nova Scotia 3½ per cent.	3	6	2	Drugs	93	19	9½
				Subscription to National League for Phys. Ed.	2	0	0
				Treasurer	4	9	7
					415	5	3
				Balance at Bank, March 31st, 1920 ...	32	2	2
	£447	7	5		£447	7	5

Sanitary Administration.

STAFF.—There are here engaged the Medical Officer of Health and an Assistant Medical Officer of Health, the duties of the latter being almost wholly limited to school medical work; a Chief Sanitary Inspector and three District Sanitary Inspectors, and one Disinfecting and odd work Inspector. The foregoing are all men. The depletion of the staff caused by the war is now happily amended, a fact which is reflected upon the sanitary work done—especially in connection with houses—during last year. There are two lady Health Visitors engaged in Maternity and Child Welfare work. There is one whole time and one part-time clerk.

ARRANGEMENT FOR BACTERIOLOGICAL WORK.—Cheltenham takes part in an arrangement made by the Gloucestershire County Council for bacteriological work to be done at the Bristol University's Pubic Health Laboratory. Swabs, tubes and other outfits can be got from the Director of the Laboratory on application direct by any medical practitioner, and a direct report obtained by letter, or by telegram if so desired. Emergency outfits can also be obtained by application to the local Medical Officer of Health, who always keeps a small stock at hand. Influenza Vaccine, supplied by the Ministry of Health, can be obtained by application to the Medical Officer of Health.

INFECTIOUS HOSPITAL ACCOMMODATION.—This is by the old established Delancey Fever Hospital, which is used jointly by the Town Council of Cheltenham and the two neighbouring sanitary authorities—the Charlton Kings Urban Council and the Cheltenham Rural District Council. The hospital consists of Scarlet Fever, Enteric Fever, and Diphtheria wards, with quarantine rooms, and administration department, dispensary, etc. An old wooden structure for occasional overflow use also stands in the grounds. There is further a detached small pox block upon the same general site whose situation has been lately deemed to be an unsafe one, and the building of a new hospital for Small Pox for joint county use has been decided upon. The Delancey Hospital is administered by a joint Board elected from the above-mentioned Councils, together with a representative of the Cheltenham College, which has a building of its own upon the same site.

SPECIAL ACTS, ORDERS, AND ADOPTIVE ACTS IN FORCE IN THE DISTRICT.

The Cheltenham Improvement Acts 1852 and 1889.
The Cheltenham Corporation Water Acts 1878 and 1881.
Public Health Acts Amendment Act 1890, Parts 4 and 5.
Public Health Acts Amendment Act 1907, certain sections with additions.
Infectious Diseases Prevention Act 1890, Section 13.
Housing of Working Classes Act 1890, Part 3.
Baths and Washhouses Acts 1886.
Cheltenham Provisional Order 1892, *re* Fouling of Public Conveniences, etc.
Cheltenham Provisional Order 1896, for closing private slaughterhouses, requiring dairymen to notify infectious disease, etc.

Housing.

A great change came over the housing conditions in Cheltenham, as everywhere in England at the end of the War, when demobilisation sent back a large number of men wanting houses. Very little building took place during the war years, but the acute shortage of houses came somewhat as a surprise in districts like Cheltenham, where for many years previously there had been more houses to let than tenants to occupy them. The number of occupied houses in the borough in 1919 was about 11,500 as estimated by the rating assessments. The number has not lately altered much but was never more.

It is impossible, until after the census of 1921, to attempt to balance our population against numbers of habitable houses, as we have no reliable clue as to what the population may be at the present time, circumstances having no doubt much changed since last census. The shortage of houses is, however, evident by the long continued search that has lately been necessary to secure a house, and the fact that tenants have been able to demand a premium for giving up their houses to other tenants. The want, however, is by no means limited to the working-class population, there being as great a demand for houses that used to be let at from £40 to £80 a year as for cheaper houses, and although practically every small house that can be considered habitable, even by old standards, is occupied, there is a tendency for the poorer classes to demand better houses, which their increased wages allow them to pay for, at least so long as rents are limited by law.

Under the circumstances of general shortage and the extreme difficulty of building any adequate number of houses within a limited time, occasioned by the present high price of labour and materials, it has not been possible to continue to be so exacting as formerly in the matter of prevention of overcrowding, and the closing and demolition of unfit houses. It has been necessary to call a halt even in regard to houses for whose abolition action had already been begun on account of the impossibility of providing new houses for the unhoused residents. If the provision of better houses does not precede the abolition of those that are judged to be unfit, it must at least keep pace with it, so that the people may continue to be housed.

In this district there are comparatively large numbers of houses that fall below the standard that should rightly fit them for inhabitation, largely on account of their size being too small, and their ill-found condition in regard to conveniences, that require to be served according to modern ideas of healthy and proper life. At a Government Inquiry held in connection with the Town Council's building scheme, I ventured to say there were as many as 1000 houses that ought to be replaced by houses with larger rooms and better conveniences. The Government Inspector went with me on a round of inspection and was I believe, satisfied of the truth of the statement. But the bar to any immediate action that could result in the desired substitution appears insuperable. and greater now than formerly, whilst reliance upon such a scheme for building houses, as that which the Town Council is operating, to put these poor class residences out of occupation by a gradual shifting of tenants from worse to better houses is of too remote an effect to be worth considering.

There can, however, be but one remedy to satisfy the existing demand and to lead to the substitution of healthy and convenient houses for the working-classes, which is by building new houses. It is unfortunate that the action of the Government to get houses built by a system of public subsidy should have so completely put aside all private and competitive building operations, with the result that houses can only now be built at an enormous cost, and can only be lived in by members of the working-classes at a great charge upon the tax payers. Indeed it is very likely that the houses that are being built by the Local Authority with the assistance of the Government temporary subsidy, at so high a cost, having ultimately to be let at economic rents to the best available tenants, will hardly benefit the working-classes at all in this town.

The Cheltenham Housing Scheme involves the putting up of 500 small houses, all in one locality in the district of St. Mark's on the South-West border of the town. Everything is now approved and the houses can be built as soon as may be. Considerable obstacles have however arisen to delay the operation of the scheme, and at the moment it looks as if the greatest of them would be in finding the necessary money to defray the cost of building 500 houses.

Dealing with Houses Unfit for Habitation.

In the year 1917 I considered the best method of getting rid of a considerable number of the worst houses in Cheltenham, and after a careful inspection of the town, I took action under Parts 1 and 2 of the "Housing of the Working Classes Act, 1890," and "The Housing and Town Planning, etc., Act, 1909," by representations to the Sanitary Authority as to 174 houses.

By dealing with the houses in areas it was possible at that time to secure some compensation to owners, by arbitration, for the destruction of their properties, and in a considerable number of the cases dealt with it, appeared to me appropriate that compensation should be paid. The Public Health Committee viewed the properties and were satisfied with their unfitness. In very few of the houses involved was it thought desirable to attempt to order work to be done with a view to rendering the houses habitable, though this was possible in one or two instances.

Whilst negotiations were being carried on with the owners of the properties to see whether they would agree to the demolition of the houses by friendly agreement, and the payment to them of a suitable sum, a Bill was introduced into Parliament, and afterwards passed into law as the "Housing, Town Planning, etc., Act, 1919," which, by section 8, abrogated the old necessity of giving the owners compensatory payments for their properties proposed to be demolished on the ground of insanitary conditions, and substituted a limited payment for the mere value of the ground or site considered as a site for new buildings when this, with all the buildings upon it is acquired by the Sanitary Authority in carrying out its scheme of demolition and re-housing. This new law put a different face to the matter, which requires a re-consideration of the mode of dealing with the houses, the mode of practically buying them out being no longer available. The power of taking the land with the insanitary buildings upon it compulsorily at the price only of the land considered as building land, simplified the matter to the financial prejudice of the owner, and this

being so, it may be more convenient to deal with the properties under Part 2 rather than under Part 1 of the "Housing of the Working Classes Act." Indeed already notices have been served upon the owners to close as unfit for habitation, 46 of the houses included in the original representation under Part 1 of the Act. For the rest, the stringency of present housing conditions caused by an insufficient number of habitable houses in the town has delayed action. The "Official Representation" regarding the 174 houses was as follows:

OFFICIAL REPRESENTATION OF THE MEDICAL OFFICER OF HEATH TO THE LOCAL AUTHORITY OF THE BOROUGH OF CHELTENHAM AS TO AN IMPROVEMENT SCHEME EMBODYING A PROPOSAL TO ABOLISH CERTAIN DWELLING HOUSES, AND TO ERECT A NUMBER OF NEW HOUSES—SECTIONS 4 AND 5 HOUSING OF THE WORKING CLASSES ACT, 1890, SECTION 22 HOUSING, TOWN PLANNING, ETC., ACT, 1909.

I, John Henry Garrett, Medical Officer of Health of the Borough of Cheltenham, do hereby make an Official Representation as to the 174 houses contained in the following schedule, that these houses whether situated in courts, alleys, or streets, are unfit for human habitation, or are in a bad condition owing to want of proper conveniences, or to other sanitary defects, so as to be dangerous or injurious to the health of their inhabitants, and to the inhabitants of neighbouring houses, and that the most satisfactory way of dealing with the evils connected with these houses, and the sanitary defects they exhibit, is by means of an Improvement Scheme, which shall lead to the abolition of these houses, and the erection of other houses in their stead.

Signed. J. H. GARRETT,
Medical Officer of Health.

To the Public Health Committee,
Cheltenham Town Council,
November 12th, 1917.

The Houses in the schedule of the above mentioned Representations are comprised within the following Unhealthy Areas:

Sherborne Street Area, Providence Place Area, Kew Place Area, Exmouth Court Area, Ambrose Place Area, North Ward Area; including portions of Lower Park Street, Burton Street, Grove Street, Whitehart Street, Sun Street, Stanhope Street, Waterloo Street, Worcester Street, Elm Street, Malvern Street, and courts and passages off Lowér High Street. If however, it be necessary in compliance with the right reading of the Acts concerned, that the areas should be limited to the individual streets, courts and passages, or to the actual curtilages of the houses involved it is my intention that this representation shall so apply.

Schedule of the 174 Houses referred to in the above "Official Representation."

6, 8, 10, 12, Sherborne Street, 1, 2, 3, Wood's Court, Sherborne Street, 1—5, Pear Tree Cottages, Sherborne Street, 1, 2, Hill's Court, Sherborne Street, 1—5, Providence Place, Portland Street, 1—5, Kew Place (first court), 1—3, Kew Place (second court), 1—6, Exmouth Street, 1—6, Exmouth Terrace, 1—7, Beckinsale's Passage, 1—8, King Street Garden's 1—3, Hereford Place (1st yard), 1, 2, Hereford Place (2nd yard), 2,

Phœnix Passage, 4, Bubb's Cottages, 1, 2, Butt's Cottages, and Hope Cottage, Lower Park Street, 23a, 30a, 31a, Burton Street, 8, 9, 10, 10½, 11, Grove Street, 12—16, Grove Street, 27, 28, Grove Street, 2—7, Ambrose Street, 15, 16, Whitehart Street, 1—4, Sun Street Retreat, 5—18, Stanhope Street, 27—29, Stanhope Street, 35—40, Stanhope Street, 42—65, Stanhope Street, 1—4, St. Peter's Place, Stanhope Street, 75—84, Stanhope Street, 29, Waterloo Street, 1, Limerick Cottages, Waterloo Street, 5—9, Worcester Street, 9—11, Elm Street, 1—5, Butt's Cottages, Malverm Street.

Statement required by Local Government Board under Article V., of the Housing (Inspection of District) Regulation, 1920, in regard to the inspection of dwelling-houses under Section 17, of the Housing, Town Planning, etc., Act, 1909.

	1916	*1917*	*1918*	*1919*
No. of dwelling-houses specially inspected ...	229	223	90	820
No. of such houses considered as unfit for human habitation	10	5	5	2
No. of representations made to Local Authority	10	1	5	2
No. of Closing Orders made by Local Authority	10	5	5	2
No. of houses the defects of which were remedied without Closing Orders ...	Nil	63	22	119
No. of houses made fit for habitation after Closing Orders	2	Nil	Nil	1
No. of Demolition Orders made...	Nil	Nil	4	Nil
No. of such houses in respect of which notices were served during	149	83	22	643

General character of defects found to exist in dwellings inspected.

1. Lack of sufficient light and ventilation.
2. Insufficient water supply.
3. Insnfficient w.c. accommodation.
4. Damp walls of living and sleeping rooms.
5. Lack of conveniences for decent llving, *e.g.*, proper facilities for cooking and storing food, and washing accommodation.
6. Overcrowding.
7. Defective drainage.
8. Defective yard paving.
9. Defective ash receptacles.
10. Defective dilapidations.

Houses closed as unfit for human habitation during 1916 to 1919.

1 and 2, York Place, Swindon Road, 2, 3, 4, 5 and 6, Littles Court, New Street, 76 and 77, Stanhope Street, 1, Limbrick Cottages, Waterloo Street, 4, Grosvenor Cottages, and Cottage rear of 21, Fairview Road, Rooms over stable in Hermitage Street, and 13, Grosvenor Street.

Summary of Routine and other Sanitary Work done in the Health Department during 1919, with Notes thereon.

Report by the Chief Sanitary Inspector.

I herewith present my report, as Sanitary Inspector for the Borough of Cheltenham, on the work carried out by the Inspectors of the Health Department during 1919. The work done includes house-to-house inspections, special inspections for the investigation of complaints and other reasons; supervision and testing of all drainage and general sanitary works executed in connection with existing buildings; inspection of schools, houses-let in-lodgings, common lodging-houses, slaughter-houses, bakehouses, factories, workshops, workplaces and outworkers' premises, cowsheds, dairies and milkshops, butchers, fruiterers and fishmongers' shops; the inspection of meat and other foods and of premises where foodstuff is deposited or prepared for sale.

The usual practice has been continued of communicating with the responsible party immediately upon the discovery of any sanitary defect, and supplying detailed particulars of the work necessary to satisfactorily remedy the same. Long experience has proved that generally it is much easier to get nuisances abated, not only more promptly, but more willingly, by writing a letter, or by calling upon the responsible person, than by service of a legal notice. It is very gratifying to be able to record that it has not been necessary in any case to take legal proceedings to enforce compliance with the statutory notices.

The complaints received at the office numbered 430, as against 235 received last year, all these were investigated, and dealt with as found necessary. Many of these were of the usual trivial character, and in a number of instances no nuisance could be discovered at the places against which the complaint was made. The execution of all works for the removal or suppression of nuisances, whether it be a small matter of repair or extensive structural alterations, is done under the supervision of the Sanitary Inspector. Following the practice adopted before the war, a summary of the sanitary operations is furnished below. Such a statement, however, cannot adequately express the amount of work done by the sanitary staff, because in addition to the matters already set out, a considerable amount of time is of necessity taken up in keeping various registers and records, in clerical work, in interviewing owners or agents of property, and other administrative work which cannot well be tabulated.

This report also contains several tables of work done during the years 1916 to 1919 inclusive.

The total number of sanitary inspections of the district during the years 1916 to 1919, with the results, are fully set out in the appended table.

Sanitary Inspections of Districts and Results

For the Years 1916, 1917, 1918 and 1919.

	1916.	*1917.*	*1918.*	*1919.*
Total Number of Visits and Inspections	12,639	9,061	7,257	9,177
Special Inspections	1,268	615	888	936
House-to-house Inspections	324	223	290	820
Inspections of Work in progress ...	975	244	720	1,498
Interviews with Builders, etc.	254	26	164	1,994
Re-inspections	1,801	1,022	477	277
Visits to Slaughter-houses	2,032	2,475	868	960
„ Food Shops	2,328	718	284	564
„ Houses Let-in-Lodgings ...	113	44	34	45
„ Common Lodging Houses ...	340	158	73	267
„ Cowsheds, Dairies & Milkshops	96	41	44	66
„ Bakehouses	87	50	20	74
„ Workshops	492	119	120	332
„ Schools	36	36	42	62
„ *re* Infectious Diseases ...	1,571	1,498	1,626	1,096
„ *re* Public House Conveniences	181	124	6	54
„ Places where Animals are kept	935	250	235	132
„ Soldiers' Billets, Hospitals and Belgian Homes	1,463	1,418	40	—
Complaints received	313	270	265	430
Number of Nuisances reported ...	1,655	1,611	1,321	5,841
„ Houses & Premises dealt with	700	499	1,620	1,221
„ Legal Notices served ...	107	138	121	876
„ Preliminary Notices served	482	174	169	143
„ Letters written referring to Notices	288	107	119	482
DRAINS:—				
Drains opened and examined under Sec. 41 P:H. Act, 1875	61	22	25	38
Smoke tests applied to Drains & Soil Pipes	116	101	186	240
Chemical „ „ „ „	14	48	2	24
Water „ „ „ „	276	311	433	333
Defective Brick Drains removed ...	8	5	—	19
New Drains laid	64	42	39	83
Length in yards of Stoneware Pipe Drains laid	454	489	473	904
Length in yards of Heavy Cast Iron Pipes	815	585	601	474
Manholes and Inspection Chambers provided	45	42	40	58
Intercepting Traps fixed	35	30	36	50
Iron and Stoneware Gully Traps fixed	167	120	121	172
Dip and Bell Traps removed	26	26	25	12
Drains flushed	31	52	24	—
W.C.'s:—				
New Water Closets built	24	24	16	47
New w.c. Pans of the Wash-down type fixed	149	129	73	130

Old Pan Containers and Long Hopper Closets removed	87	6	8	16
Flushing Boxes fixed to w.c.'s	48	36	24	54
Flushing Boxes repaired	26	45	25	104
Water Closets and Drains unstopped ...	92	83	63	139
Defective w.c. Doors, Arm Joints, Seats, etc.	52	36	28	—
Lead Traps and w.c. Traps provided and w.c. Pans cleansed	34	11	16	—
SOIL AND WASTE PIPES:—				
Soil and Ventilating Shafts fixed ...	35	38	39	45
New Waste Pipes fixed, trapped and disconnected	84	64	36	130
MISCELLANEOUS:—				
Rooms cleansed and limewashed ...	201	211	143	651
House Roofs, Eaves Gutters, Rain-water Pipes repaired	84	115	76	349
New Sinks and Lavatories provided ...	58	3	4	119
Yards and Areas asphalted or concreted	65	10	4	55
Ash receptacles (moveable galvanized iron with covers)	47	40	20	130
Bakehouses cleansed and limewashed ...	14	21	12	21
Slaunhterhouses cleansed & limewashed	19	12	8	18
Common Lodging houses cleansed and limewashed	8	6	7	15
Overcrowding in dwellings abated ...	25	8	4	16
Samples of water taken for analysis ...	12	10	—	—
Urinals provided with a proper supply of water	6	4	—	—
Manure receptacles built or reconstructed, or repaired	7	8	6	2
Accumulations of manure removed ...	16	14	2	47
Nuisances from keeping of animals ...	11	11	7	—
INFECTIOUS DISEASES:—				
Inquiries into cases of infectious diseases	1,571	1,498	1,626	1,089
Notices to School-mistresses with regard to Infectious Diseases	42	51	54	32
Notices to parents with regard to ditto.	42	51	54	32
Notices to Free Library with regard to ditto.	2	3	2	2
Articles of clothing disinfected after do.	46,200	50,869	45,451	4,230
Rooms fumigated	192	292	394	162
Articles of clothing, etc., disinfected for outside Sanitary Authorities and private persons	3,896	18,268	21,195	4,230
No. of articles disinfected during the year for troops and military hospitals	43,661	52,360	58,146	—

House Drainage.

A large amount of work is always necessary if private house drains are to be kept in good order. A good deal of time has been devoted to the inspection and testing of drains. The Public Health Committee authorised me in 57 cases to open the ground and examine drains under Section 41, Public Health Act 1875, and in 38 instances they were found to be in such a defective condition as to render it necessary to call upon the owner to take them up and replace them with new drains of glazed stoneware or heavy cast-iron pipes.

In addition to the work done under notice, a good deal of sanitary work has been done to obtain the Corporation Sanitary Certificate.

A survey has been made of every house and premises where the drains have been relaid, and plans of such drains have been made and filed for future reference. These plans, of which we have now 1,496, form a valuable record of the drainage work done in connection with existing buildings.

The Corporation Sanitary Certificate.

The following table shows the houses for which Corporation Sanitary Certificates were granted during 1916 to 1919, inclusive, to the owners or tenants who made application for them.

The total number of Certificates issued since the commencement of this work is 1,203.

The inspections in connectian with this work frequently revealed grave defects in the drainage system and sanitary fittings of a house, when the owner or occupier was 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 abont 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 GRANTED.

1916.

Situation of Premises.	Gross Annual Value. £	s.	d.
Willersley, Gloucester Road	32	0	0
Rossmond Lawn, Sydenham Road	43	0	0
Montpellier Lawn, Bath Road	80	0	0
Ormond, Montpellier	22	0	0
Pentland, Tivoli Road	65	0	0
Eton Lodge, The Park	65	0	0
4, Priory Parade	45	0	0
9, Lypiatt Terrace	65	0	0
Underwood Lawn, Sydenham Villas Road ...	90	0	0
3, Oxford Parade	38	0	0
Canobie, Montpellier Parade	135	0	0

Dromore, All Saints' Road	32	0	0
Woodland Cottage, Cambray	38	0	0
11, Bayshill Terrace	55	0	0
18, Montpellier Terrace	55	0	0
Holmwood Cottage, Vittoria Walk	38	0	0
22, Park Place	28	0	0
Clareville, Lansdown Parade	30	0	0
Trescoe, Hewlett Road	55	0	0
2, Clarence Square	32	0	0
Heronden, High Street	65	0	0
2, York Terrace	50	0	0
8, Sydenham Villas	50	0	0
1, Malvern Place	50	0	0
Western Lodge, Western Road	58	0	0

1917.

6, Montpellier Grove...	45	0	0
Whitehayes, Tivoli Road	42	0	0
Langdale, Lansdown Place	65	0	0
Dromore, All Saints' Road	32	0	0
4, Park Place	40	0	0
Fromefield, St. George's Road...	54	0	0
2, Heightley Villas, Kings Road	30	0	0
Florenceville, Moorend Park Road	27	0	0
11, Wellington Square	37	0	0
Farnborough, Queen's Road	55	0	0
2, Battledown Villas, Hale's Road	50	0	0
14, Montpellier Grove	45	0	0
Cotmore Lodge, Bath Road	55	0	0
Benton House, The Park	160	0	0
Haverstock, Eldorado Road	55	0	0
Hillside, Hatherley Road	135	0	0
Cranford, Painswick Road	35	0	0
1, Easton Villas, Albert Road	57	0	0
7, Painswick Lawn	45	0	0
11, Lansdown Parade	32	0	0
4, Argyle Place, The Park	40	0	0
Pinehurst, Evesham Road	40	0	0
Bargate, St. George's Road	125	0	0
21, Lansdown Parade	36	0	0
Holmdale, Painswick Road	35	0	0
Dry How, Tivoli Road	55	0	0
7, Montpellier Grove...	35	0	0

1918.

6, Suffolk Square	55	0	0
3, Portland Parade	20	0	0
13, Park Place	38	0	0
Granleigh, Montpellier Drive	45	0	0
Para, Albert Road	72	10	0
St. Lawrence, Christ Church Road	105	0	0

Holmdale, Painswick Road	35	0	0
22, Park Place	28	0	0
5, Spa Buildings	55	0	0
Pittville Lodge	70	0	0
27, Clarence Square	32	0	0
St. Denys, Queen's Road	55	0	0
Oakleigh, Lansdown Road	120	0	0
The Gables, Lansdown Road	100	0	0
Fulwood, Eldorado Road	80	0	0
13, York Terrace	55	0	0
Trescoe, Hewlett Road	55	0	0
Hollinwood, Montpellier Terrace	50	0	0
42, Lansdown Crescent	35	0	0
Maythorne, Christ Church Road	70	0	0
3, Lypiatt Terrace	50	0	0

1919.

Claremont Lodge	100	0	0
Sherwood, Hayward's Road	15	0	0
Christ Church Vicarage	90	0	0
2, Suffolk Square	55	0	0
Benton House, The Park	160	0	0
The Wyniatts, Church Church Road	110	0	0
Trescoe, Hewlett Road	55	0	0
Wyaston, Parabola Road	90	0	0
5, Douro Villas, Douro Road	85	0	0
2, Clarence Square	32	0	0
1, Montague Lawn	50	0	0
Belmore House, Bath Road	60	0	0
2, Oriel Villas	45	0	0
Park Lodge, Andover Place	18	0	0

Report on the Administration of the Factory and Workshops Act, 1901, in connection with Factories, Workshops and Homework.

The whole of the workshops (including bakehouses, workplaces, and outworkers premises) have been visited during the year. The Local Authority is responsible for the sanitary condition of these places. Sanitary conditions include (a) cleanliness, (b) overcrowding, (c) ventilation (d) drainage of floors of workshops in which any process is carried on which renders the floor liable to be wet and which is capable of being removed by drainage, (e) sanitary convenience.

The special Tables of the Home Office are here appended giving information with regard to Workshops, Workplaces and Homework:—

1.—INSPECTION.

Premises.	Number of Inspections.	No. of Written and Verbal Notices.	Number of Prosecutions.
Factories (including Factory Laundries.)	15	3	Nil
Workshops (including Workshop Laundries.)... ...	255	43	,,
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	62	9	,,
Total	332	53	,,

2.—DEFECTS FOUND.

Particulars.	Number of Defects found	No. of Defects remedied.
Nuisances under the Public Health Acts :		
Want of cleanliness	19	19
Want of ventilation	11	11
Overcrowding	2	2
Other nuisances	13	13
Sanitary accommodation (insufficient	...	...
Sanitary accommodation (unsuitable or defective	...	...
Sanitary accommodation (not separate for sexes	...	...
Total	45	45

3.—HOME WORK.

Lists received from Employers.

	Twice in the year.		Once in the year.	
Nature of Work.	Lists.	Outworkers.	Lists.	Outworkers.
Making and Altering Wearing Apparel...	Nil	Nil	4	5

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.—(1).	Number.—(2).
Dressmakers	51
Tailors	39
Laundries	51
Bootmakers	33
Milliners	12
Bakehouses	55
Miscellaneous	96
Total number of Workshops on Register...	337

5.—OTHER MATTERS.

Class.	Number.
Matters notified to H.M. Inspector of Factories ...	Nil
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	26
Notified by H.M. Inspector of Factories	18
Reports (of action taken) sent to H.M. Inspector	18
Underground Bakehouses (s. 101)	9
Certificates granted during the year	Nil
In use at the end of the year	7

Meat and Food Inspection.

A very large amount of time has been devoted during the year to the inspection of meat and other foods. The establishment of a Government slaughterhouse at the public Abattoir was an excellent thing from a public health point of view, in that it centralised the slaughtering of all cattle and sheep, and for a short period of pigs. The Abattoir has never been so much used as during this year, four times more animals being slaughtered there than in any other similar period prior to the war. A considerable amount of meat was sent from the Abattoir to Gloucester, Forest of Dean, London and other districts. The use of the Abattoir has been a distinct advantage to local traders and meat consumers as it enabled them to have their home-killed meat in a better condition than was possible in the case of those towns where it had to be sent several miles by road or train. Another advantage has been that it turned the Abattoir into a paying concern; it is the first year since it was opened that it has made a profit,

Under the Live Stock (Sales) Order 1919, the Food Controller made regulations for dealing with casualty stock. He directed that where the slaughter of a beast or sheep was immediately necessary or desirable on account of accidental injury to the animal or its illness or for any other exceptional reason or purpose, notice of the slaughter or intended slaughter of beast or sheep should be forthwith given to the Area Live Stock Commissioner or other persons named.

The carcase or offal of such beast or sheep could only be disposed of according to instructions of the Live Stock Commissioner.

It was illegal for a person to sell or attempt to sell or dispose of for human consumption any such beast or sheep except under and in accordance with instructions given.

In this district casualty beasts or sheep had to be sent to the abattoir for inspection.

The Ministry of Food during 1918 instituted a system of grading under which home fed cattle and sheep were graded into four classes, *viz.*, 1, 2, 3 and 4. The Government stood the loss of any condemned carcases in the first three. The owners of animals graded in Class 4 had to bear the loss of any condemned. Of the 279 grade 4 animals or carcases sent to the Abattoir 44, or 15 per cent., of this class were condemned.

This Order and the grading Regulations are very important, and it is to be sincerely hoped that some such regulations will be issued when the Food Orders are revoked, making it compulsory to send all casualty beasts and sheep, and the carcases of any animals slaughtered on farms, to an abattoir for inspection before being allowed to offer same for sale.

Such an Order is absolutely essential if we are in future to prevent unscrupulous dealers from trafficking in doubtful meat.

The following tables show the number of animal carcases inspected during 1916, 1917, 1918, and 1919.

NUMBER OF ANIMAL CARCASES EXAMINED AT PRIVATE SLAUGHTERHOUSES.

Animal.	1916	1917	1918	1919
Beeves	1,115	1,158	181	Nil
Calves	73	332	20	„
Sheep	6,829	6,606	1,264	„
Pigs	2,345	2,031	908	1,022
Totals	10,362	10,127	2,373	1,022

NUMBER OF ANIMAL CARCASES EXAMINED AT PUBLIC ABATTOIR.

Animal.	1916	1917	1918	1919
Beeves	861	1,029	1,973	2,077
Calves	273	679	2,164	2,726
Sheep	3,683	6,457	12,292	21,665
Pork Pigs	1,641	1,745	1,705	1,683
Bacon Pigs	117	30		
Totals	6,575	9,940	18,134	28,151

Unsound and Diseased Meat, etc., Destroyed as unfit for the Food of Man During 1919.

Description.		Cause of Seizure.
22 Carcases of Beef	...	General Tuberculosis.
7 Forequarters of Beef	...	Localised do.
2 Carcases of Beef	...	Actinomycosis.
3 do.	...	Septicæmia.
2 do.	...	Moribund
5 do.	...	Parturition.
3 do.	...	Pleurisy and Peritonitis.
9 do.	...	Emaciated and Dropsical.
6 Carcases of Mutton	...	do.
11 do.	...	Anæmia and Emaciation.
3 do.	...	Peritonitis and Pleurisy.
3 do.	...	Liver Disease and Dropsy.
3 do.	...	Parturition.
4 do.	...	Emaciation.
12 Carcases of Pork	...	Tuberculosis.
4 do.	...	Liver Disease and Dropsy.
3 Carcarses of Veal	...	Pleurisy and Peritonitis.
52 Quarters of Beef	...	Unsound.
30 Carcases of Mutton	...	do.
2 ton, 2 cwts. of Fish	...	do.
8 cwts., 2 qrs. of Dates	...	do.
2 cwts. of Bacon	...	do.
71 Chickens	...	do.
60 Ox Hearts	...	do.
115 Tins of Corned Beef	...	do.
18 ,, Tomatoes	...	do.
18 ,, Condensed Milk	...	do.
151 Meat Pies	...	do.
67 Boxes of Sausages	...	do.

Seven hundred and twenty-two livers, lungs or other internal organs of animals which were, on examination, found to be locally diseased, were surrendered. The total weight of meat, fish, and unsound food surrendered was 30 tons, 16 cwts. 58 lbs.

Unsound and Diseased Meat and other Foods surrendered in the years 1916, 1917, and 1918, as Unfit for the Food of Man.

Description.		Cause of Seizure.
17 Carcases of Beef	...	Tuberculosis.
2 Forequarters of Beef	...	do.
1 Hindquarter of Beef	...	do.
2 Carcases of Beef	...	Suffocation.
2 do.	...	Parturition.
1 do.	...	Anasarca.

5 Carcases of Mutton	...	Emaciation.
5 do.	...	Anasarca.
5 do.	...	Suffocation.
6 do.	...	Liver Disease & Dropsy.
6 do.	...	Pleurisy and Peritonitis.
10 do.	...	Decomposition.
1 do.	...	Jaundice.
20 Carcases of Pork	...	Tuberculosis.
5 do.	...	Liver Disease and Dropsy.
2 do.	...	Rheumatoid Arthritis.
4 do.	...	Pleurisy and Peritonitis.
7 do.	...	Swine Enteritis.
1 do.	...	Anasarca.
1 do.	...	Suffocation.
2 Carcases of Veal	...	Tuberculosis.
2 do.	...	Emaciation.
4 do.	...	Smothered in Transit.
2 do.	...	Pleurisy and Peritonitis.
7 Hindquarters of Beef	...	Unsound.
5 Forequarters of Feef	...	do.
31 Pieces of Beef	...	do.
4 Forequarters of Mutton	...	do.
20 Boxes of Tripe	...	do.
6 Sides of Bacon	...	do.
4 Shoulders of Bacon	...	do.
8 Hams	...	do.
6 Pieces of Bacon	..	do.
22 Tins of Corned Beef	...	do.
52 Boxes of Mackerel	...	do.
2 „ Haddock	...	do.
8 „ Bloaters	...	do.
2 „ Cod Fish	...	do.
1,100 Lemons	...	do.
15 cwts. Potatoes	...	do.

1,472 livers, lungs or other internal organs of animals which were, on examination, found to be locally diseased, were surrendered. The total weight of diseased meat, unsound meat, fish, and other foods destroyed was 14 tons.

Inspection of Food Shops.

The various butchers, fishmongers, and greengrocers shops, and other places where food is prepared or 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 were necessary, the unsound or unwholesome food being in ail cases voluntarily surrendered by 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 (including Pork Butchers) 53, Confectionery and Sweet Shops 110, Daries and Shops where milk is sold 66, Fish and Chipped Potato Shops 22, Fish Dealers 26, Fruiterers and Greengrocers Shops 178, Ice Cream Dealers 30, Provision Dealers and Grocers Shops 160, Restaurants and Tea Shops 40, Tripe Shops 4.

Damaged Foodstuffs.

There was a very serious shortage of animal feeding stuffs during the latter part of 1918, which made it imperative that full use should be made of all available material. With this object the Damaged Foodstuffs Order, 1918, came into operation on December 1st. The Order prohibited the destruction of any of the following that had been condemed or was unfit for human consumption :—

Meat of any animal, including bones, non-edible shaughterhouse waste, fish, including fish offal, or fish waste. Tinned foodstuffs. Imported foods liable to Customs duty.

The Order prohibited the sale of these articles except to a person duly authorised to purchase by special license. Licenses to purchase stipulated that the articles were to be treated for the production of inedible oils and tallow, feeding stuffs and fertilisers. Returns had to made of the damaged foodstuffs purchased, and of the articles manufactured from them.

The following is the practice in operation in Cheltenham for dealing with damaged foodstuffs.

Meat of any animal, including bones.—The only animals that we have to deal with are cattle, sheep, calves, and pigs, which are diseased or unsound, and unfit for human food. These are either seized on a Magistrate's Order or surrendered voluntarily by the owners. The carcases, or parts of carcases, and the diseased organs of animals are removed from slaughterhouses and conveyed to the destructor premises, where they are sterilised by boiling for several hours in a steam heated tank. The bones are collected and sold to bone merchants.

The quantities of Meat and Other Foods so dealt with this year is given under the table of surrendered meat and other foods.

Fish, including fish offal or fish waste is not so readily dealt with as meat. Condemned fish and fish waste is now used with or without treatment as a fertilizer. Arrangements have been made with a market gardener to utilize condemned fish as a fertilizer.

Tinned Meats are so far as possible used for pig food after boiling.

Common Lodgings.

The number of Common Lodging Houses, now on the register is eight. Four of these have been re-registered. The houses with their accommodation are as follows:—

20 and 21, Stanhope Street	21	Lodgers.
40, Stanhope Street	10	,,
Cumberland Cottage, Grove Street ...	23	,,
Cumberland House, Grove Street	31	,,
2 and 4 Grove Street	28	,,
Cumberland Villa, Grove Street	21	,,
Rowton House, Grove Street	46	,,
221, High Street	30	,,
Total	210	,,

During the years 1916 to 1919, eight hundred and thirty-eight visits of inspection were paid to these places, and it was found on the whole that they were very well conducted, the bye-laws and regulations being carefully carried out so as to leave little for complaint.

Cowsheds, Dairies and Milkshops.

There are 66 milkshops and 16 dairy farms within the borough. These places have been visited to see that the Orders and Regulations relating to this trade were being duly observed.

During the year two applications were received from persons desiring to commence the trade of milk seller. The applicants premises being found on inspection to be suitable, the Public Health Committee decided to register them.

The following tables give a list of the nuisances discovered and abated in connection with the keeping of animals during the years 1916 to 1919.

STABLES AND MANURE RECEPTACLES.

Accumulations of manure removed on notice	47
Manure receptacles without cover	2
Insufficient manure receptacles	2
Defective ditto	4
Defective paving of floor of stables	1
No drainage of Stables	1
Blocked drains of Stables	—
Notices served *re* stables and manure receptacles	6

PIGS AND PIG-STYES.

Dirty condition	15
Defective paving	3
No proper drainage	1
No cesspool or catchpit	1
Overfiowing cesspool	12
Pigs kept in contravention of bye-laws	3
Uncovered cesspool and catchpit	3
Accumulation of manure	10
Notices served *re* pigs and pig-styes	48

Disinfection.

The following tables give the number and kind of things disinfected at the Steam Disinfection Station after cases of infectious diseases :—

Goods Disinfected.	*1916*	*1917*	*1918*	*1919*
Aprons	14	30	25	12
Beds	52	42	64	46
Blankets ...	1679	2080	3928	763
Blouses ...	35	36	19	7
Bodices ...	7	10	15	3
Bolsters ...	267	203	171	198
Carpets ...	36	42	31	50

Pyjamas ...	46	306	219	5
Palliasses ...	11	22	31	6
Pants	3384	3840	3597	68
Petticoats ...	26	22	31	6
Pillows... ...	805	1006	1180	866
Quilts	126	84	135	125
Rugs	45	34	52	62
Kilts	12	42	3	—
Coats	5943	5790	5850	182
Collars	48	56	24	5
Corsets ...	—	12	10	—
Chairs	3	11	11	7
Cloaks	—	15	—	—
Curtains ..	25	46	79	51
Cushions ...	80	78	102	55
Dresses ...	21	73	47	21
Dressing Gowns...	72	122	100	53
Scarves ...	38	2860	3551	20
Sheets	278	682	595	116
Shawls	22	72	18	12
Shirts	3841	4002	3752	83
Stockings ...	7047	8040	7505	210
Overalls ...	4	25	9	5
Putties	6848	6420	7030	114
Skirts	6	16	—	—
Gloves	313	670	20	2
Handkerchiefs ...	3422	3064	3707	85
Jackets	14	12	2	—
Brushes ...	—	—	1	—
Hats	36	904	84	10
Hassocks ...	—	7	4	2
Jerseys	47	2640	3401	—
Mats	5	14	6	21
Mattresses ...	442	612	560	499
Tablecloths ...	8	42	28	17
Toilet Covers ...	—	60	7	5
Trousers ...	2699	3206	3092	86
Ties	29	63	35	7
Towels	3624	3360	3667	157
Vests	3453	3102	3609	67
Miscellaneous ...	710	612	819	163
Bags	—	3760	3608	106
Kits	3579	3842	3701	51

Offensive Trades.

The offensive trades carried on in this town are fortunately few in number. The trades in operation here, which are in the statutory list of offensive trades, are three fellmongers, one tallow maker, eighteen rag and bone dealers, and twenty-two fried fish shops. The bye-laws regulating these places, have generally been well observed, although it has been

necessary to occasionally call attention to the desirability of removing garbage, etc., more regularly, and for the thorough cleansing of the floors and pavements at the close of each working day.

Destruction of Rats and Mice.

The Rats and Mice (Destruction) Act, 1919, came into operation on the 1st January, 1920. The County Council have delegated their powers under this Act to the Town Council, and the latter body appointed me Executive Officer to carry out the provisions of the Act in Cheltenham.

Since my appointment I have paid a good deal of attention to the destruction of rats, some 150 complaints have been traced to rats working out of defective house drains or from public sewers. Wherever these have been found the defects have been made good, if from the sewers, by Corporation workmen, and when from defective drains, by the owners, who, in most instances, have had new systems of properly trapped drains laid down.

It has been stated that 75 per cent. of the cases of rat invasion of buildings in towns is due to defective drains and sewers. Money spent on finding and removing defects is a good outlay.

In addition to the work done in connection with drains, I have had about 3,000 poison baits laid in sewer manholes in various parts of the town, also at the Sewage Works, Refuse Destructor, Abattoir, and at private houses where rats appear to have gained access due to defects in drains or sewers.

Suitable quantities of poisons have been placed in sewers or other rat infested places, and in every instance the whole or greater part of the poison-material had been consumed or removed by rats after the lapse of a few hours. Attempt has been made to estimate the number of rats by the collection and enumeration of carcases on certain selected premises, but this method failed because of the fact that the rats retired to their runs and probably died there. The results of laying down those baits must therefore be judged by the diminution in numbers of, or freedom from rats. In this connection it may be of interest to know that prior to the time we laid baits in the sewers the arrival of dead rats at the screens at the Sewage Works averaged about nine a day, but during heavy rain as many as two to three dozen were collected. I am informed that the average is now less than one rat per day, a considerable reduction, and proving that the work done has proved effective.

Other operations that we have carried out have been Trapping, Hunting, and Gassing. Three types of traps have been used, a wire trap, a barrel trap, and one made of varnish laid on cardboard. Of these, the wire trap has been most successful, the barrel trap has been only moderately successful, and the varnished cardboard has proved a failure, but this may be due to the varnish used not being sufficiently holding.

Hunting.—There is not much to be said about this method. Ferrets have been employed to cause rats to bolt from their burrows to be killed by dogs or sticks. By these methods we have killed about 500 rats.

Gassing.—This method has distinct advantages in that it kills not only the adult rats, but also the newly born in their nests. The gas is produced by burning sulphur in a cylinder attached to a smoke machine.

When the sulpher has been burning for about ten minutes, the tube from the machine is put into a rat run and all adjacent runs are stopped. The machine produces sulphurous gas of a high strength which quickly kills all rats that are in the burrows under the test.

PREVENTIVE METHODS.—The chief preventive measures, such as the protection of food supplies, the destruction and prompt removal of garbage, the repairing of defective drains, and the rat proofing of buildings have been preached so consistently of late that it is unnecessary to say much about these measures, but I would like to state that it is most important that all food rooms, larders, stores, lockers, etc., should be protected from rat invasion, and they can usually be rendered rat proof by stout wire netting of not more than $\frac{1}{8}$-in. mesh, fitted over openings into such receptacle.

A. E. HUDSON, M.B.E., F.S.I.A.,

Chief Sanitary Inspector.

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

OF THE

EDUCATION COMMITTEE

OF THE

BOROUGH OF CHELTENHAM

For the Year 1919.

CONTENTS.

MEMBERS OF THE EDUCATION COMMITTEE

OF THE

BOROUGH OF CHELTENHAM.

Chairman:

ALDERMAN C. H. MARGRETT, J.P.

Vice-Chairman:

ALDERMAN R. STEEL, J.P.

Members:

THE MAYOR (ALDERMAN J. D. BENDALL);

ALDERMEN W. HORSLEY AND P. P. TAYLOR;

COUNCILLORS J. W. BETTERIDGE, J. H. BOULTER, F. C. DODWELL, EDITH GEDDES, A. MANN, J. MOORE, E. ROGERS, J. STEWART, H. W. THOMAS, T. WILKINS AND CLARA WINTERBOTBAM.

THE REV. R. L. HODSON, THE REV. P. M. C. JOHNSTONE;

MISS M. H. KNOLLYS, MESSRS. E. BOURNE. W. G. GURNEY, A. MILES, W. WELSTEAD, AND A. G. WHEELER.

OF THE ABOVE THE FOLLOWING FORM THE

Medical Sub-Committee:

ALDERMAN P. P. TAYLOR (Chairman);

ALDERMEN W. H. HORSLEY, C. H. MARGRETT, and R. STEEL;

COUNCILLORS J. W. BETTERIDGE, E. ROGERS, J. STEWART, AND CLARA WINTERBOTHAM;

MISS M. H. KNOLLYS;

MESSRS. E. BOURNE, W. WELSTEAD AND A. G. WHEELER.

Staff of Medical Department:

School Medical Officer:—J. H. GARRETT, M.D., D.P.H.

Assistant School Medical Officer:—I. J. McDONOUGH, L.R.C.P. & S, D.P.H.

School Dentist:—A. E. CARDEN, ESQ., L.D.S.

School Nurses:—MISS HODGSON AND MISS HAY.

Secretary to Education Committee:—W. T. LONG, ESQ.

To the Chairman and Members of the Education Committee of the Borough of Cheltenham.

Ladies and Gentlemen,—

I have the honour to present my Report of the School Medical Work for the year 1919, this being my eleventh successive Annual Report.

By this report I believe it will be found that much useful work continues to be done in your Medical Department, and you will also see that under certain headings some still remains to be organised. Mainly however, the law in regard to Medical Inspection and Treatment of School Children has been made operative in Cheltenham, and what remains to be done should not prove beyond your enterprise and resources.

I am, Ladies and Gentlemen,

Your obedient Servant,

J. H. GARRETT,

School Medical Officer.

April 14th, 1920.

Medical Inspections.

In Cheltenham, medical inspections of school children from the time of their first beginning have been carried on with regularity. In many districts the war acted as a disturbing cause by removing essential parts of the medical staff for military duty, but circumstances favoured us here in a way that enabled us to keep the school medical work going very much as in normal times. At first the Board of Education prescribed four routine inspections of school children to take place at intervals of from two to three years during the nine years, or so, of the whole school course, and with us this number was successfully done. Later, the number of periodic inspections was reduced to three instead of four, and since then the routine inspections have been regularly performed at the three age groups 5—6, 8—9, 12 and over. The frequency and regularity of the visits to the schools of the medical inspector for the purpose of inspections in Cheltenham obviated the necessity of inspecting at intermediate ages, for, as all the schools are visited for this purpose three times each year, it is not difficult to catch practically every child whilst its age remains somewhere within the year fixed upon as that for inspection. For the same reason practically all the children of the third group who are inspected at ages over 12, are between the age years 12—13, only the very few children who have been transferred to the town, and begin school here after their thirteenth birthday being possible candidates of superior age at the time of their last inspection. Extra-routine or special inspections for reasons of obvious defect or illness take place at any age either at one of the three annual visits to the schools for the purpose of the routine inspections, or during any week of the year, and almost any day, upon being sent to the School Clinic by the schoolmaster or schoolmistress to have their condition diagnosed, and their ailments put in line of treatment in the same way as that the routine inspections, and to be classed as "specials" along with those found defective or ailing at the routine inspections in the schools. For these, and for those found at the routine inspections, which require more careful examination than can be given at the school, the School Clinic is an "Inspection Clinic" first, and a Treatment Clinic afterwards for such cases as it is legitimate to treat there.

The inspections of last year may therefore be tabulated as follows:—

ROUTINE AND OTHER MEDICAL INSPECTIONS 1919.

	Boys.	*Girls.*	*Total*
Routine Inspections at regular age groups	940	941	1881
Special Re-inspections in the Schools	389	356	745
Inspected at School by request of teachers at odd times	39	61	100
Special cases referred to Clinic for examinations ...	327	308	635
Total number of inspections during 1919	1695	1666	3361

Note on the Results of the Inspection During 1919.

The whole results are detailed on Table II. of the Board of Education's tables which follow.

Clothing and Footgear.—The tendency as compared with old time is distinctly towards improvement. Bare feet are practically never seen in this part of the country, and clothing that is insufficient for covering and warmth pertains only to the schools in the very poorest localities, and is now uncommon even in these. Occasionally children are sent to school badly clothed or with very worn and illfitting boots. The exposure of the parents want of care, or ability, occasioned by sending children to a public school, tends to lead to greater care being taken, and to awaken any possible pride and emulation in this matter which is operative for betterment. The admonitions of teachers is of stronger effect in the same direction. A fund collected by the Secretary of the Education Committee has been applied during last year to provide boots for the children who needed them worst.

Malnutrition.—The number found last year of ill-nourished children were fewer than the year before, but the numbers noted have never been very numerous here.

Affections of the Skin.—The numbers of cases of ringworm, impetigo, scabies, etc., fouud at the routine inspections constitute only quite a small proportion of those actually existing in the schools as is evident from the large number, who, in the course of the year, attend the clinic, to which they can happily be sent for treatment by the schoolmasters and schoolmistresses at any time. As many of these diseases are contagious, the near and necessary contiguity of children in schools is unfortunate and tends to keep such cases always with us, though the condition is ameliorated by the existence of the Clinic, which provides treatment and enables such cases to be excluded from school which are judged to be dangerous to attend.

Defective Sight and Hearing.—Defective sight is permanently inherent amongst school children, the percentage upon the whole only varying somewhat from time to time, and the same may be said of defective hearing, though in much slighter degree. The 83 cases of eye defect for treatment last year amounts to 2·4 per cent. of all the cases inspected last year (3,361). There were only 7 cases in all of defective hearing found in the same number of children, amounting ·2 per cent.

Tuberculosis.—The county organisation for dealing with tuberculosis permits of doubtful cases being referred for examination to the expert tuberculosis medical officer at the Tuberculosis Dispensary, and doubtful cases are referred to him as well as clearly diagnosed cases requiring treatment. Decided cases of tuberculosis of the lungs are not of common occurrence among our school children. Last year only one such case was discovered with seven others that were viewed as suspicious. There were three other cases of the disease which affected other parts of the body than the lungs, but the record altogether is light.

Deformities.—The number of cases is 89 or 2·6 per cent. of all cases inspected. This number however, includes flat foot which constituted the largest part.

Cases Referred to Clinic for Special Examination 1919.

There is a total for the year of 635 cases. Of these 321 were referred from the routine inspections in the schools, and the remaining 314 were sent to the clinic by teachers at various times.

THE ULTIMATE DIAGNOSIS OF THE 635 CASES REFERRED TO SCHOOL CLINIC FOR EXAMINATION.

Nature of Case.	Number.		Nature of Case.	Number.	
	Boys	Girls		Boys	Girls
Anæmia	6	11	Diphtheria	2	3
Debility	21	19	Whooping Cough ...	6	5
Bronchial Catarrh ...	25	22	Chicken-Pox	8	11
Asthma	1	2	Mumps	10	7
Pneumonia	3	2	Measles	8	6
Tuberculosis of Lungs	2	1	Scarlet Fever	2	3
„ (other forms)	1	3	Influenza	6	7
„ (suspected)	4	6	Uncertain Rash ...	2	—
Pleurisy	—	1	Chorea	3	2
Nasal Catarrh	10	7	Epilepsy... ...	1	2
Adenoids	4	6	Neuralgia	4	6
Acute Pharyngitis ...	6	7	Gastric Irritation ...	12	9
Acute Tonsilitis ...	11	9	Intestinal Parasites ...	5	8
Relaxed Throat ...	7	10	Heart	8	6
Acute Laryngitis ...	7	6	Sprains	9	5
Adenitis	15	14	Fractures	4	2
Dental Caries and Oral Sepsis	13	16	Other Injuries	10	7
			Hernia	2	1
Rheumatism (Articular)	4	3	Rickets	2	1
„ (Muscular)	6	4	Deformities	6	9
Eczema	5	2	Defective speech ...	2	3
Urticaria	8	6	Conjuntivitis	6	5
Herpes	4	5	Other eye defects ...	6	8
Psoriasis	3	2	Otorrhœa	12	10
Alopecia	1	2	Other Ear Defects ...	4	2
Furunculosis	4	5	Goitre	3	4
Phimosis	4	—			
Enuresis...	9	5	Totals	327	308

HEIGHTS AND WEIGHTS OF CHILDREN INSPECTED, 1919.

AVERAGE HEIGHTS IN INCHES.						
Age Groups...	5—6 years.		8—9 years.		12 and over.	
	No.	Height	No.	Height	No.	Height
Boys	283	40·83	345	46·73	312	54·03
Girls	271	40·79	312	47·04	358	56·14

AVERAGE WEIGHTS IN POUNDS.						
Age Groups...	5—6 years.		8—9 years.		12 and over.	
	No.	Weight	No	Weight	No.	Weight
Boys	283	37·34	345	50·29	312	70·23
Girls	271	36·85	312	49·74	358	74·04

Treatment of Defects and Ailments.

The treatment of all the phyisical defects and ailments found in school children naturally must vary in its provision according to the sort of treatment required. As no bounds are put to the social status or class of child who attends the public elementary school, there will also be many whose parents have sufficient means and independance to call in and pay for such medical care as found to be necessary, and it should be sufficient to direct their attention to the bodily defects in their children which require medicai aid. For the poorer part, public provision of treatment is required without payment. The main part of the most serious defects to be treated are those which for some time have been looked upon as requiring a specialised and expert knowledge on the part of the doctors who devote themselves to their particular study and treatment. They concern the eye, ear and throat. Other defects and diseases of more general class have to be dealt with in smaller numbers, particularly those of chronic course. The more acute maladies whose onset is usually sudden, and course limited, are rather of home than school occurrence, since they confine the patients to house and bed from an early stage, or ought to do so, though

occasional cases are recognised whilst in school. The treatment of such cases is beyond the reach of the school medical service, and must be treated by the home doctor. Lastly there is a large class of defects and affectious of a minor sort, many of them communicable from child to child, which do not seriously endanger life, and are therefore commonly neglected by the parents and guardians of the children, to the great suffering and discomfort of the latter, and to the great detriment of their education. These can be dealt with hy the Education Committee when a right kind of place for their reception is provided, and doctor and nurse are available for diagnosing, directing, and carrying out the treatment found to be requisite. Such an institution goes by the name of School Clinic. In large towns the School Clinic may combine this treatment of minor ailments, with treatment of those specialised diseases and defects of eye, ear and throat, and of other chronic ailments. In a town the size of Cheltenham, this latter, and more considerable sort of treatment, is conveniently obtained at the special hospitals and clinics established for general use, and of which there are two in Cheltenham.

Thus this town possesses great advantages over many places in the facilities it offers for treatment of school children whose physical defects are discovered in the school medical department. For here there is a great choice of private doctors, a couple of special hospitals and clinics, a good General Hospital, a small children's hospital, and a well found minor clinic carried on by the Education Committee. With all this medical and surgical aid in operation, one may say that the provision for treatment of school children in Cheltenham is sufficient, and it is only a matter for parents to take advantage of it, assisted by the nurses, school teachers, and others concerned. How far these activities are successful will be seen by a glance at the Board of Education's table IV., placed towards the end of this report, where the claim is made that 98 per cent. of defects found were at least to some extent treated, the great bulk of these being remedied or improved.

Cases Referred to Hospitals for Treatment 1919.

	Boys.	*Girls.*	*Total.*
The Eye, Ear and Throat Hospital	92	80	172
The General Hospital	89	198	207
	181	198	379

Attendances at the Minor Clinics.

In 1919, the children who attended the school clinic numbered 3042. Their attendances numbering 10,483, or an average of 3·44 attendances for each child. The numbers attending the clinic are therefore well maintained, showing that the institution continues to be appreciated and popular, the number of children who came in the two previous years having been 3,027 in 1918, and 3,004 in 1917. The clinic is also used as a place for special inspection of children referred there from the more rapid routine inspections in the schools and for special inspections wherever these are required, and in connection with it are the apartments for

cleansing verminous children, so that taken all together it is a most serviceable institution, and one that should be found in every town. Though some of the cases that are sent to it are of a very minor sort indeed, almost trivial, such as abrased knees from a fall on the gravel, or a finger cut or contused, that in most cases would soon get well with no particular treatment at all, it is a convenient and comforting thing both to parent and child for such slight injuries to receive tendance at the hands of a nurse in a place well supplied with simple surgical necessaries. The relief is greater, in proportion to the greater seriousness, in the case of the unsightly and painful skin diseases, some of which do not get well for a very long time if left to themselves, but possibly spread to other children, so that it is for the benefit of the schools, as well as for individual parent and child, that they should be promptly and efficiently dealt with as they arise.

For the greater part the children are sent from the school by the schoolmaster or schoolmistress, whose solicitude for the welfare of all concerned seconds that of parents, or, in cases of parental neglect, is substituted for it.

It must be allowed that this business cannot be carried on without some slight loss of school time for the children who come to the clinic. It may be quite impossible for the child to return to school upon the afternoons it is sent to the clinic ; for although the institution is establised in a very central place, the distance to walk from the school is in many cases considerable. The numbers of children attending in the afternoon is so large that there must be some time of waiting for many of them, which is quite unavoidable. Although the clinic is at the Municipal Offices, which face on to the principal and most beautiful street in the town, the approach is by a back way, which enables the attendance to be made unobtrusively. In the waiting room it is not easy to keep 50 school children, who have nothing to do but wait, from playing and making a noise, but so long as no annoyance arises to anyone, and no injury to themselves, there is no object in suppressing the play, in fact I notice that in some towns the provision for waiting is in the form of a playroom.

TABLE SHOWING ATTENDANCES AT CLINIC, 1919.

Month.	Admitted	Number of Attendances	Ringworm	Impetigo	Scabies	Verminous	Miscellaneous	special Inspect'n Cases
January ...	364	1131	26	48	11	7	191	81
February	267	1004	21	34	14	12	134	52
March ...	338	1197	18	48	5	7	203	57
April ...	244	590	18	33	6	11	107	69
May ...	271	948	23	44	7	9	117	71
June ...	253	825	21	38	8	8	124	54
July ...	242	585	20	34	9	6	110	63
September	276	958	19	31	9	5	155	57
October ...	298	1225	21	47	15	3	163	49
November	260	1124	16	28	7	2	170	37
December	229	896	19	37	17	7	104	45
Totals ...	3042	10483	222	422	108	77	1578	635

RESULTS OF TREATMENT AT CLINIC AS ABOVE.

2266 Cases were discharged cured.
53 Chronic Cases were relieved.
69 were referred to Hospital and private practitioners.
19 remained under treatment at end of year.
635 were children submitted to special Examination at the Clinic.

3042

GENERAL RESULT OF VISION TESTING, 1919.

Age.		Normal.		Requiring further Investigation for Treatment and Spectacles.						Total.
		6/6	6/9	6/12	6/18	6/24	6/36	6/60	Less than 6/60	
Boys	8—9	294	17	19	6	8	1	—	—	345
Girls	8—9	279	15	9	3	2	4	—	—	312
Boys	12—	276	7	14	6	5	2	2	—	312
Girls	12—	322	11	10	1	7	6	1	—	358
Total	Boys	570	24	33	12	13	3	2	—	657
Total	Girls	601	26	19	4	9	10	1	—	670
Total Boys and Girls		1171	50	52	16	22	13	3	—	1327
Percentage 1919		88·2	3·8	3·9	1·2	1·6	1·	·2	—	—

The above table shows a rather higher percentage of eyes so defective as to require the provision of spectacles than in the previous year, and 20 more pairs of glasses were provided in 1919 than 1918. The Education Committee provided gratuitously to persons in necessitous circumstances spectacles for their children, and generally about half the total number provided annually, are paid for by the public authority.

Spectacles Provided in 1919.

	Boys.	*Girls.*	*Total.*
By the Committee	26	17	43
By the Parents	14	21	35
Totals ...	40	38	78

Dental Inspection and Treatment.

The present arrangement for the dental inspection and treatment of elementary School children is limited to the work Mr. Carden can acomplish by working four hours per week for about 40 weeks of the year. His routine inspections are limited to children between seven and eight years of age, with re-inspections a year later for as many as possible of those he has operated upon. This amount of work can only be viewed as a part of that which is really required to enable it to be said that the best possible is being done for the teeth of the school children here. So far as it goes, however, the work is excellent and most useful in aiding those who have the advantage of the treatment to acquire the best set of teeth they can get, having regard to hereditary or constitutional deficiencies, and habits of diet that act as fundamental and immediate causes of decay. These causes of decay are undoubtedly affected for their lessening by the daily cleansing of the teeth. For several years during the war it became difficult or impossible to get childrens' tooth brushes, and the putting on sale of these necessary articles in the schools and the Clinic had for a time to be abandoned. They are now to be obtained again although at a much higher cost, and a stock has been purchased by the Committee. It is therefore hoped that schoolmasters and schoolmistresses will again assist in getting children to use them as a matter of daily habit, and make this a leading subject in any lessons that may be given in personal hygiene.

The School Dentist accomplished the following inspections and operations in 1919 and the two previous years:—

DENTAL WORK IN 1917, 1918, AND 1919.

	1917	1919	1217
Children from seven to eight years of age submitted to routine dental inspections	79	391	440
Children re-inspected after previous operations ...	131	51	61
Operations by extraction of teeth...	728	981	930
do. do. with gas anæsthetic	79	30	40
Operations by filling decayed teeth	191	388	413

General Tabular Statement of Work done by School Doctor, 1919.

Visits to Schools for Routine Inspections	114
Visits to Schools for Special reasons	99
Number of Children Inspected and Re-inspected	3361
Visits to Children's Homes *re* Infectious and Non-Infectious illnesses	203
Attendances at Medical Clinic	160

Attendances at Dental Clinic to administer Anæsthetic	21
Medical Certificates provided to exclude Children from School ...	115
do. do. for reference to Tuberculosis Officr ...	11
do. do. in connection with admission to Scholarships and Institutions	10

General Tabular Statement of Work done by the two Nurses, 1919.

Visits to Schools in preparation of Routine Inspections... ...	114
Visits to Schools at time of Inspections by Doctor	114
Visits to Schools to inspect Children as to verminous state ...	160
Following-up visits to Homes *re* Treatment of Children ...	1378
Visits to Homes *re* Dental Cases	614
Attendances at Medical Clinic	160
Attendances at Dental Clinic	78
Attendances of Children at Medical Clinic requiring Cleansing of heads, Dressing of sores, etc., supervised by School Doctor)	10483

Mentally Defective, Blind, Deaf, Epileptic, and Crippled Children.

To the present time no systematic dealing with mentally defective children has been carried out here. A preliminary enquiry in the schools has shown that the numbers that require removal from the ordinary classes, to be dealt with in special school or class apart, are too few for the matter to be arranged locally with due regard to economy. I have brought the matter before the Medical Sub-Committee of the Education Committee, and an instruction has been given for a detailed inspection of defective children to be made in the schools, and this of course can be at any time done. It would be useless to do it however, and labour lost, unless some arrongement had been made to deal with the children. The information at hand would appear to indicate that the number to be certified as mentally defective including idiots, imbeciles and feeble-minded might be about 50.

I notice that the business of providing for mentally defective children in the County of Gloucester, including a considerably area of country all around us, is equally undetermined, and it would probably prove more economical for Cheltenham to join in a county scheme than to attempt to provide separate accommodation for its own cases within or near the town.

Cases which are found to be so emphatically blind, deaf, epileptic or crippled as to be unable to take advantage of ordinary school provision, or by reason of their infirmity are a hindrance to the education of normal children are already dealt with here by sending one from time to time to an established institution sometimes situated in a part of the country

somewhat distant from Cheltenham. So far no difficulty has been encountered in getting such children into institutions provided the annual payment demanded has been forthcoming.

No doubt it is a relief for certain of these defective children to be taken off the hands of their natural parents and guardians, though a doubt may sometimes have arisen in Committee as to whether the result was likely to be commensurate with the considerable expenditures involved.

Employed Children of School age, Organised Physical Education, and Public Feeding of Children.

Systematic Medical Examination of children employed in work whilst of school age as a means of judging their physical fitness for it, and a good organisation of physical education applicable in a general way to all the school, have not yet been established in Cheltenham. Arrangements for the feeding of school children, which at the present time can hardly be judged to be an urgent matter here, would doubtless, receive any due consideration by the Education Committee if circumstances arose that appeared to demand it.

The Hygienic Condition of School Buildings and Appurtenances.

The schools which were used for hospitals during the war have been brought back to their original purpose, and the make-shift buildings occupied as schools during the same time have been happily relinquished. They included two old schools that had formerly been adjudged unfit, and had passed out of use as such.

The usual round of inspection of the buildings and premises of all the schools has been made by the school medical officer, accompanied by the sanirary inspector, since last reporting. Taken generally, the sanitary provisions are sufficient, though a constant attention on the part of caretakers and teachers is required to prevent their misuse and keep them clean. At the new Central School, Gloucester Road, a system of prefects has been effective in discovering boys with dirty habits of standing on seats, etc., and seems to be such a means of education in decency as to be worth adopting in other schools. The usual notes of defects, and notices to school managers, have been made and served.

AREA—BOROUGH OF CHELTENHAM.

TABLE I.—NUMBER OF CHILDREN INSPECTED 1ST JANUARY, 1919, TO 31ST DECEMBER, 1919.

A. "CODE" GROUPS.

Age	ENTRANTS.					
	3	4	5	6	Other Ages.	Total.
Boys... ...	—	—	283	—	—	283
Girls	—	—	271	—	—	271
Totals ...	—	—	554	—	—	554

Age.	Intermediate Group.		LEAVERS.				Grand Total
	8	12	13	14	Other Ages.	Total.	
Boys ...	345	312	—	—	—	657	940
Girls ...	312	358	—	—	—	670	941
Totals ...	657	670	—	—	—	1327	1881

B. GROUPS OTHER THAN "CODE."

(1)	Intermediate Group (other than 8 years). (2)	Special Cases. (3)	Re-Examinations (*i.e.* No. of Children Re-Examined (4)
Boys ...	Only Code	Groups were	389
Girls ...	here Ins	pected.	356
Totals ..	—	—	745

AREA—BOROUGH OF CHELTENHAM.

TABLE II.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL INSPECTION IN 1919.

Defect or Disease. (1)		Code Groups.		Specials.	
		Number referred for Treatment. (2)	Number requiring to be kept under observation, but not referred for Treatment. (3)	Number referred for Treatment. (4)	Number requiring to be kept under observation, but not referred for Treatment. (5)
	Malnutrition	6	9		
	Uncleanliness:				
	Head	39	5		
	Body	10	—		
Skin	Ringworm:				
	Head	5	—		
	Body	2	—		
	Scabies	8	—		
	Impetigo...	23	—		
	Other Diseases	4	4		
Eye	Defective Vision and Squint ...	83	28		
	External Eye Disease	24	11		
Ear	Defective Hearing	5	2		
	Ear Disease	17	7		
Teeth	Dental Disease (see also Dental Report)	79	93		
Nose and Throat	Enlarged Tonsils	26	44		
	Adenoids	30	9		
	Enlarged Tonsils and Adenoids	69	8		
	Defective Speech ...	3	2		
Heart and Circulation	Heart Disease:				
	Organic	1	8		
	Functional	—	9		
	Anæmia	8	9		
Lungs	Pulmonary Tuberculosis:				
	Definite	1	—		
	Suspected	3	4		
	Chronic Bronchitis	7	9		
	Other Disease	2	3		
Nervous System	Epilepsy...	1	2		
	Chorea	1	2		
	Other Disease	1	3		
	Non-Pulmonary Tuberculosis:				
	Glands	1	1		
	Bones and Joints	—	1		
	Other Forms...	—	—		
	Rickets	2	2		
	Deformities	49	40		
	Other Defects or Diseases ...	57	19		

The tabulation of "ailing" children to whom inspection was limited in certain districts on account of war exigences, are not required for Cheltenham. For other information as to Specials see other lists. The number treated are included in Table IV.

AREA—BOROUGH OF CHELTENHAM.

TABLE III.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA IN 1919.

			BOYS	GIRLS	TOTAL
Blind (including partially Blind).		Attending Public Elementary Schools	2	—	2
		Attending Certified Schools for the Blind	3	1	4
		Not at School	—	—	—
Deaf and Dumb (including partially Deaf).		Attending Public Elementary Schools	4	2	6
		Attending Certified Schools for the deaf	3	—	3
		Not at School	1	1	2
Mentally Deficient	Feeble Minded.	Attending Public Elementary Schools	12	10	22
		Attending Certified Schools for Mentally Defective Children	—	1	1
		Notified to the Local(Control) Authority during the year	—	—	—
		Not at School	—	—	—
	Imbeciles	At School	—	—	—
		Not at School	2	2	4
	Idiots.	... ...	—	—	—
Epileptics.		Attending Public Elementary Schools	2	7	9
		Attending Certified Schools for Epileptics	—	1	1
		Not at School	—	3	3
Physically Defective	Pulmonary Tuber-culosis.	Attending Public Elementary Schools	2	3	5
		Attending Certified Schools for Physically defective Chlldren	—	1	1
		Not at School	6	4	10
	Other forms of Tuber-culosis.	Attending Public Elementary Schools	3	3	6
		Attending Certified Schools for Physically Defective Children	—	—	—
		Not at School	1	1	2
	Cripples others than Tuber-cular.	Attending Public Elementary Schools	9	11	20
		Attending Certified Schools for Physically Defective Children	—	—	—
		Not at School	—	2	2
Dull or backward*		Retarded 2 years	124	118	242
		Retarded 3 years			

* Judged according to Age or Standard by teacher.

AREA—BOROUGH OF CHELTENHAM.

TABLE IV.—TREATMENT OF DEFECTS OF CHILDREN DURING 1919.*

CONDITION.	No. of Defects found for which Treatment was considered necessary.			Number of Defects for which no report is available.	Number of Defects Treated.	Results of Treatment.			Number of Defects not Treated.	Percentage of Defects Treated.
	From previous year.	New.	Total.			Remedied.	Improved.	Un-changed.		
Clothing	—	—	—	—	—	—	—	—	—	—
Footwear...	—	—	—	—	—	—	—	—	—	—
Cleanliness of Head	—	69	69	—	69	48	21	—	—	100
Cleanliness of Body ...	—	13	13	—	13	9	4	—	—	100
Nutrition...	3	11	14	—	14	3	9	2	—	100
Nose and Throat	11	133	144	—	125	118	7	—	19	86·7
External Eye Disease	—	37	37	—	37	15	22	—	—	100
Ear Disease	2	27	29	—	25	9	16	—	4	86·2
Teeth (see also Dental Report)	5	83	88	3	81	69	12	—	4	92
Heart and Circulation	2	22	24	1	21	10	10	1	2	87·5
Lungs	5	27	32	—	32	5	25	2	—	100
Nervous System	2	7	9	—	9	3	5	1	—	100
Skin	10	886	896	—	896	869	24	3	—	100
Rickets	—	3	3	—	3	—	2	1	—	100
Deformities	5	59	64	—	64	5	52	7	—	100
Tuberculosis—Non-Pulmonaary	1	5	6	—	6	2	3	1	—	100
Speech	—	4	4	—	4	—	3	1	—	100
Mental Condition	—	2	2	—	2	—	—	2	—	100
Vision and Squint	4	84	88	—	84	5	79	—	4	95·4
Hearing	—	13	13	—	13	4	8	1	—	100
Miscellaneous	—	1687	1687	5	1665	1595	60	10	17	95·8
Total ...	50	3172	3222	9	3163	2769	362	32	50	98·1

* This return shows all defects treated during the year from whatever source derived.

AREA—BOROUGH OF CHELTENHAM.

TABLE V.—INSPECTION, TREATMENT, ETC. OF CHILDREN DURING 1919.

(1) The total number of children medically inspected (whether Code Group, special or ailing child)...	3,361
(2) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept nnder observation (but not referred for treatment).	367
(3) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.).	573
(4) The number of children in (3) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	542

NOTE—Minor Clinic Cases not included in the above. For those see other Tables.