

[Report 1920] / Medical Officer of Health, Cambridge Borough.

Contributors

Cambridge (England). Borough Council.

Publication/Creation

1920

Persistent URL

<https://wellcomecollection.org/works/ywm9us8c>

License and attribution

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

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

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



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

AC4442 (2) CAM BRIDGE

Borough of Cambridge.

REPORT

OF THE

Medical Officer of Health

AND

School Medical Officer

AND OF

The Borough Dentist

For the Year 1920.

ANDREW J. LAIRD, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH
AND SCHOOL MEDICAL OFFICER.

WILLIAM H. JONES, M.A., L.D.S.,

BOROUGH DENTIST.



HEALTH REPORT.

INDEX.

	PAGE
Births and Birth-Rate	1
Canal Boats	23
Cancer	14
Cerebro-Spinal Fever	13
Common Lodging Houses	21
Deaths and Death-Rate	2
Deaths in Public Institutions	6
Deaths under 5 years of age	6
Dental Treatment	16
Diphtheria	11
Diseases of Respiratory System	14
Disinfection	26
Encephalitis	14
Estimate of Population	1
Factories and Workshops	22
Food and Drugs Acts	18
Food Supplies	20
Health Visitors' Work	15
Housing	16
Illegitimate Births	1
Infant Consultations	14
Infantile and Child Mortality	6
Infectious Diseases Hospital	26
Marriages	1
Measles and German Measles	12
Maternity and Child Welfare	14
Notification of Births	2
Ophthalmia Neonatorum	13
Pauperism	9
Population	1
Rag and Flock Act	23
Record of Disease Incidence	11
Sanitary Inspectors' Work	23
Scarlet Fever	11
Slaughterhouses	21
Still Births	2
Tuberculosis	12
Vaccination	9
Whooping Cough	12
Statistical Tables :	
Table I. Vital Statistics for Whole District	3
" II. Cases of Infectious Diseases Notified	10
" III. Causes of and Age at Death	4
" III A. Causes of Deaths at Different Age Periods	29
" IV. Infantile Mortality	8

Public Health Department.

STAFF, 1920.

<i>Medical Officer of Health, School</i>			
<i>Medical Officer and Superintendent of the Infectious Diseases Hospital</i>	...	...	ANDREW J. LAIRD, M.D. D.P.H.
<i>Assistant Medical Officer of Health and Assistant School Medical Officer</i>	...	...	A. MABEL GURNEY, M.B., D.P.H.
<i>Borough Dentist</i>	...	...	W. H. JONES, M.A., L.D.S.
<i>Assistant Dentist</i>	...	...	L. MACHIN, L.D.S.
<i>Dental Attendants</i>	...	...	Miss MUNCEY and Miss BENNETT.
<i>Bacteriologist</i>	...	...	G. S. GRAHAM-SMITH, M.D., &c.
<i>Sanitary Inspectors</i>	...	...	L. H. DIBBLIN (Inspector under the Sale of Food and Drugs Acts).
"	...	...	WM. STEARN (Inspector of Common Lodging Houses).
"	...	...	R. V. JACOB.
<i>Disinfector</i>	...	...	H. D. MURFITT.
<i>Medical Officers to the Infant Welfare Centres</i>	...	...	MRS. ROBSON.
"			DR. F. E. A. WEBB.
<i>Health Visitors</i>	...	...	Miss COLE and Miss SLACK.
<i>School Nurses</i>	...	...	Miss STEVENS and Miss NICHOLS.
<i>Matron of the Infectious Diseases Hospital</i>	...	...	Miss I. MILNE MITCHELL.
<i>Clerks</i>	...	...	R. R. WALLIS.
"	...	...	Miss G. WALLIS (School Medical).
"	...	...	J. A. DAWSON.

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, CAMBRIDGE.

May 16th, 1921.

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

MR. MAYOR, LADIES AND GENTLEMEN,

In presenting the Annual Reports for the year 1920 I would direct attention to the following:—

1. The marriage-rate is the highest recorded since 1903, being even higher than 1915.
2. The number of children born shows an increase of thirty-six per cent. over the year 1919. The number of births registered in each quarter of the year has, however, shown a steady decline, so that 1921 promises to be distinctly below 1920 in this respect.
3. The death-rate for 1920 is the lowest ever recorded in Cambridge.
4. The infant mortality rate is also the lowest ever recorded in Cambridge.
5. With regard to the school work, 1920 has been the first complete year for routine inspection since 1914.
6. The premises for the school clinic at 35, Parkside were opened in October, 1920, and the improved accommodation has proved a great help with the work.
7. The school dental work has passed through a year of misfortune, owing first to the resignation of Mr. Machin in May, on his appointment as Dentist to the City of Gloucester, and then by the resignation in November of Mr. Jones, on his being appointed Dentist to the County Council of Stafford. From May to November, Mr. Jones was alone, and from November 30th to March 1st we were entirely without a Dentist, with the inevitable result of accumulating arrears of work.

Mr. Jones was Borough Dentist from October, 1911, to November 30th, 1920, and the success achieved by the scheme for the treatment of the teeth of the school children owes much to his genuine enthusiasm and marked ability. The loss of his valuable services was a serious blow to the work. It may not be out of place here if I add a personal note of regret at the departure from Cambridge of a loyal colleague with whom it was a pleasure to work.

The reports (with the exception of that upon the dental work) are again presented in somewhat abbreviated form for reasons of economy. This is by definite instruction of the Health and the School Hygiene Committees.

Your obedient Servant,

ANDREW J. LAIRD,

*Medical Officer of Health
and School Medical Officer.*

MINISTRY OF HEALTH.

TABLE I.
Vital Statistics of Whole District during 1920 and previous Years.

YEAR	Population estimated to Middle of each year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS. ‡		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		*Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the district.	UNDER ONE YEAR OF AGE.		AT ALL AGES.	
			Number.	Rate.					*Number.	Rate per 1,000 nett Births.	*Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1915	54029	996	997	17·4	955	17·6	122	55	88	88	888	16·4
1916	52236	986	991	17·4	753	13·9	104	31	72	72	680	12·5
1917	†52282 ||58280	741	741	12·6	725	13·8	124	33	53	71	634	12·1
1918	†51981 ||58243	821	821	14·1	822	15·7	110	58	54	65	770	14·8
1919	†57849 ||60261	897	894	14·8	740	12·7	130	36	44	49	646	11·1
1920	60154	1239	1219	20·2	681	11·3	145	32	50	41	568	9·4

NOTES.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates.

†Population for calculating Death rate.

|| " " " " Birth "

* In Column 6 are included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 are entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

‡ " Transferable Deaths " are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.

Area of District in acres (land and inland water)	5,457	} At Census of 1911.
Total population at all ages	55,812	
Number of inhabited houses	13,150	
Average number of persons per house	4·2	

MINISTRY OF HEALTH.

TABLE III.

Causes of and ages at Death during the Year 1920. See Notes on next page.

Causes of Death.	Nett Deaths at the subjoined Ages of "Residents" whether occurring within or without the District (a).										Deaths in or belonging to localities (at all ages).				Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District (b).
	All ages.	Under 1.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	St. Andrew the Less	St. Andrew the Great.	Chesterton.	Cambridge without.		
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
All causes	568	50	6	6	14	15	64	163	250	351	70	105	42	226	
Certified (c)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	2	...	1	...	1	...	...	...	...	1	1	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	3	...	...	1	2	...	...	...	...	3	...	...	...	3
Influenza	6	...	...	...	...	...	...	2	4	5	...	...	1	1
Erysipelas	1	1	...	...	...	...	...	...	...	...	1	...	...	...
Phthisis (Pulmonary Tuberculosis)	43	...	1	1	...	6	16	15	4	36	1	2	4	6	
Tuberculous Meningitis	2	...	...	...	...	1	1	...	...	1	...	1	...	...
Other tuberculous diseases	6	...	...	2	1	...	1	1	1	5	...	1	...	1
Cancer, malignant disease	78	1	...	...	...	...	5	36	36	45	13	13	7	35
Rheumatic Fever	1	...	...	...	1	...	...	...	...	...	...	1	...	2
Meningitis (d)	2	...	1	1	...	...	...	...	...	1	...	...	1	3
Organic Heart Disease	71	...	...	...	1	...	4	26	40	43	10	14	4	18
Bronchitis	41	5	...	1	...	...	...	9	26	26	6	7	2	9
Pneumonia (all forms)	22	3	...	...	1	1	4	6	7	11	4	6	1	7
Other diseases of Respiratory organs	6	...	...	...	1	...	2	1	2	4	...	2	...	1
Diarrhoea and Enteritis (e)	5	3	...	...	...	...	1	1	...	4	...	...	1	2
Appendicitis and Typhlitis	5	...	...	...	1	...	1	2	1	1	1	2	1	9
Cirrhosis of Liver	3	...	...	...	...	...	...	3	...	1	1	1	...	1
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease	18	...	...	...	1	1	4	6	6	10	1	5	2	8
Puerperal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Other Accidents and Diseases of Pregnancy and Parturition	2	...	...	...	...	...	2	...	...	1	...	1	...	1
Congenital Debility and Malformation, including Premature Birth	30	29	...	...	...	...	1	...	...	20	2	5	3	6
Violent Deaths, excluding Suicide	15	1	1	...	1	...	6	2	4	9	2	4	...	20	
Suicide	9	...	...	...	...	...	3	4	2	4	...	2	3	2
Other Defined Diseases	195	7	2	...	3	6	13	47	117	119	27	37	12	89	
Diseases ill-defined or unknown	2	...	...	...	...	...	...	2	...	1	...	1	...	1
	568	50	6	6	14	15	64	163	250	351	70	105	42	226	
Sub-Entries included in above figures.															
Cerebro-spinal Meningitis	1	...	...	...	...	1	...	...	...	...	...	...	1	...
Encephalitis Lethargica	3	...	1	...	...	1	...	...	1	3	...	...	...	1
Lobar Pneumonia	5	...	...	...	...	1	...	3	1	2	...	2	1	...
Pneumonia	10	1	...	...	1	...	4	2	2	3	3	4	...	1
Pleurisy	2	...	...	...	...	...	2	...	...	...	...	2	...	...

NOTES TO TABLE.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death, which has been consulted and followed in all cases of doubt.

- (a) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the District who have died outside it, are *included* with the other deaths in columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable" deaths *see* footnote to Table I.
- (b) All deaths occurring in Institutions for the sick and infirm situated within the district, whether of residents or non-residents, are entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."
- (d) Exclusive of "Tuberculosis Meningitis" (10), but inclusive of Cerebro-Spinal Meningitis.
- (e) Title 19 has been used for deaths from Diarrhoea and Enteritis at all ages. (In the "Short List" deaths from Diarrhoea and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28.)

N.B.—Deaths of soldiers and sailors occurring in hospitals and institutions in the district are excluded from the total number of deaths registered in the district, and such deaths are excluded from column 11 of Table III.

Deaths in Public Institutions.—The number of deaths in Public Institutions in Cambridge during 1920 was 226, or 39·7 per cent. of the total deaths.

Infant and Child Mortality.—The number of deaths under one year of age was 50, or 41 per 1,000 births. This constitutes another record, as it is the lowest infantile mortality rate yet recorded.

	No. of Deaths.	Proportion of deaths per 1000 births.	Percentage of total deaths at all ages.	England and Wales, Deaths per 1000 births.
1913	82	73	12·0	109
1914	78	78	10·7	105
1915	88	88	9·9	110
1916	72	72	10·5	91
1917	53	71	8·3	97
1918	54	65	7·0	97
1919	44	49	6·8	89
1920	50	41	8·8	80

The infant deaths in 1920 were distributed as follows :—St. Andrew the Less, 34 ; St. Andrew the Great, 4 ; Chesterton, 8 ; and Cambridge Without 4.

The chief causes of deaths amongst infants were :—

	1913	1914	1915	1916	1917	1918	1919	1920
Premature Birth ...	26	17	18	18	15	9	10	16
Atrophy, Debility and Marasmus ...	11	8	18	8	3	11	4	10
Diarrhoeal Diseases ...	10	8	6	4	5	2	4	3
Measles ...	—	—	6	—	—	1	2	—
Whooping Cough ...	3	1	—	8	—	4	—	—
Bronchitis and Pneumonia	8	13	17	12	9	10	10	8
Tuberculous Diseases ...	1	2	3	1	2	3	1	—
Convulsions ...	2	1	4	1	3	4	2	—
All other diseases ...	21	28	16	20	16	10	11	13
	—	—	—	—	—	—	—	—
	82	78	88	72	53	54	44	50
	—	—	—	—	—	—	—	—

Deaths of Children 1 to 5 years of Age.—These totalled in 1920, 12 or 2·1 per cent. of the total deaths at all ages.

MINISTRY OF HEALTH.

TABLE IV.

INFANT MORTALITY, 1920.

Nett Deaths from stated causes at various Ages under 1 year of Age.

See Note (a).

CAUSES OF DEATH.			Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.	
All causes	Certified	...	23	4	5	3	35	7	6	2	...	50	
	Uncertified	...	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	1	...	...	...	1
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis (b)	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	1	...	...	1	1	2	1	...	5
Pneumonia (all forms)	...	...	1	...	...	...	1	1	...	1	...	3
Diarrhoea	...	...	...	...	...	...	...	1	...	...	...	1
Enteritis	...	...	...	2	...	...	2	...	...	...	...	2
Gastritis	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	1	1	...	1	...	...	2
Rickets	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying	...	...	1	...	...	...	1	...	...	...	...	1
Injury at Birth	...	...	2	...	...	...	2	...	...	...	...	2
Atelectasis	...	...	1	...	...	...	1	...	...	...	...	1
Congenital Malformations (c)	...	...	1	...	...	...	1	1	1	...	...	3
Premature Birth	...	...	11	3	...	...	14	2	...	...	...	16
Atrophy, Debility and Marasmus	...	...	4	1	2	2	9	...	1	...	...	10
Other causes	...	...	2	...	...	...	2	...	1	...	...	3
TOTALS	...	...	23	4	5	3	35	7	6	2	...	50
Nett Births in the year	legitimate	...	1156	Nett Deaths in the year of				legitimate infants	46				
	illegitimate	...	63					illegitimate infants	4				

- (a) The total in the last column of Table IV. is equal the total in column 10 of Table I., and in column 3 of Table III.
- (b) Under Abdominal Tuberculosis are included deaths from Tuberculous Peritonitis, and Enteritis and from Tabes Mesenterica.
- (c) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus, equal the total in Table III, under the heading Congenital Debility and Malformation including Premature Birth.
- (d) Want of Breast Milk is also included under Atrophy and Debility.
- (d) For references to meaning of any other headings, see notes attached to Table III.

VACCINATION.

The information given below has been kindly supplied by Mr. Rule, the Vaccination Officer, and relates to the Old Borough only.

	1919.	For the period Jan.—June, 1920.
Number of Births	667	493
„ „ Successful Vaccinations... ..	193	161
„ „ Certificates of Insusceptability	—	—
„ „ Certificates of Exemption	402	292
„ who died Unvaccinated	33	23
„ postponed by Medical Certificate	—	2
„ removed to other Districts... ..	20	5
„ not found or gone abroad	12	4
„ in abeyance	7	6
Percentage Successfully Vaccinated	28·93	32·65
Percentage Successfully Vaccinated excluding those who died Unvaccinated	30·44	34·25

Number of Statutory Declarations (or Certificates of conscientious objections) actually received during the past 13 years:—

1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
96	409	470	472	439	474	474	448	412	419	336	320	402

POOR-LAW RELIEF STATISTICS.

I am indebted to Mr. J. Congreve, Clerk to the Poor-Law Guardians for the Parish of Cambridge, for the following figures relating to pauperism.

1. Number of persons relieved in the Workhouse during the six months ended 30th September, 1920:

(a) Able-bodied	14
(b) Not Able-bodied	157
(c) Insane... ..	3
(d) Children	15
(e) Persons certified under Mental Deficiency Act	5

2. Number of Vagrants relieved in Casual Wards ... 1375
 2a. Number relieved in Children's Home 25
 3. Number of Persons in receipt of Out-door Relief ... 377
 4. Number of Out-door Vagrants relieved Nil

MINISTRY OF HEALTH.
TABLE II. Cases of Infectious Disease notified during the Year 1920.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.							TOTAL CASES NOTIFIED IN EACH LOCALITY.				Total cases removed to Hospital.	
	At all Ages.	At Ages—Years.						1 St. Andrew the Less.	2 St. Andrew the Great.	3 Chester-ton.	4 Cam-bridge Without		
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.						65 and upwards.
Small Pox
Cholera (C.), Plague (P)
Diphtheria (including Membranous Croup) ...	107	13	74	14	5	1	...	63	17	17	10	98	
Erysipelas ...	23	1	2	1	7	8	...	13	4	2	4	...	
Scarlet Fever ...	57	11	31	12	3	...	...	40	7	8	2	40
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever (R.) ...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever (C.) ...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	3	...	...	...	3	...	...	1	...	1	1	...
Measles ...	...	...	...	...	...	...	...	...	...	...	...	...
German Measles ...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever ...	2	...	...	...	1	...	...	...	...	...	...	...
Poliomyelitis ...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica ...	7	...	...	...	...	2	...	3	1	1	2	...
Ophthalmia Neonatorum ...	9	...	...	...	...	...	...	9	...	...	...	...
Malaria ...	7	...	...	...	5	...	...	1	1	2	3	...
Dysentery ...	4	...	...	...	2	...	...	2	...	1	1	...
Pneumonia ...	22	1	3	5	9	3	...	14	4	1	3	...	
Trench Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis ...	135	1	35	27	46	20	...	96	17	14	8	...	
Other forms of Tuberculosis ...	23	...	13	5	1	3	...	18	2	1	2	...	
	399	11	27	159	71	83	37	260	53	49	37	138*	

* In addition to this number 50 Diphtheria "Carriers," 14 Measles, 1 German Measles, 12 Chicken Pox, 4 Mumps, 1 Whooping Cough, 1 Vincent's Angina, and 2 Scabies cases belonging to the Borough; 8 cases of Scarlet Fever, 16 cases of Diphtheria, 8 Diphtheria "Carriers," and 1 case of Enteric Fever belonging to different parts of the County; and 1 case of Scarlet Fever, 1 case of Diphtheria, and 1 case of Erysipelas occurring among Military patients in the District have been treated at the Infectious Diseases Hospital.

Isolation Hospital (name and situation)—Borough Infectious Diseases Hospital, Mill Road, Cambridge. Total available beds—62. Number of Diseases that can be concurrently treated— indefinite.

RECORD OF DISEASE INCIDENCE.

The notifications received during the year 1920 were as follows:—
Diphtheria, 107; Scarlet Fever, 57; Erysipelas, 23; Cerebro-Spinal
Fever, 2; Encephalitis Lethargica, 7; Puerperal Fever, 3; Ophthalmia
Neonatorum, 9; Malaria, 7; Dysentery, 4; Pneumonia, 22; Pulmonary
Tuberculosis, 135; Other forms of Tuberculosis 23; Total 399. The
case-rate per 1,000 of the population was 6·6.

Diphtheria—The number of cases notified in 1920 was 107 of whom
98 were treated in hospital. The case-rate per 1,000 of the population
was 1·7. The notifications received each year since 1903 and the
mortality are as follows:—

	Cases.	Deaths.	Fatality per cent.
1903	68	11	16·1
1904	39	10	25·6
1905	65	18	27·7
1906	31	12	38·7
1907	33	3	9·1
1908	78	6	7·7
1909	59	7	11·8
1910	59	14	23·7
1911	112	19	16·9
1912	193	47	24·3
1913	101	22	21·7
1914	133	22	16·5
1915	68	16	23·0
1916	103	14	13·6
1917	30	4	13·3
1918	49	10	20·4
1919	121	8	6·6
1920	107	3	2·8

Scarlet Fever.—Fifty-seven cases were notified during 1920. Of
these 40 were treated in hospital. There were no "Return Cases"
from hospital, and one from a home isolated case.

The following is the record of notifications and deaths since 1903:—

	Cases.	Deaths.	Fatality per cent.
1903	284	6	2·1
1904	66	2	3·0
1905	132	2	1·5
1906	101	1	1·0
1907	76	1	1·3
1908	36	—	—
1909	121	1	0·8
1910	141	—	—
1911	331	1	0·3
1912	379	7	1·8
1913	312	4	1·2
1914	176	—	—
1915	87	2	2·3
1916	85	—	—
1917	45	—	—
1918	18	—	—
1919	69	2	2·9
1920	57	—	—

Measles.—Measles ceased to be compulsorily notifiable at the end of 1919. Information regarding the prevalence of this disease is obtained from Head Teachers and School Attendance Officers. The numbers notified from these sources each month were:—January, 32; February, 154; March, 134; April, 152; May, 66; June, 25; July, 2; August, 1; October, none; November, 1; December, 1. Total, 597.

The number of deaths and the death-rate each year from 1900 was as follows:—

	Deaths.	Death-rate.		Deaths.	Death-rate.
1900	1	0.02	1911	31	0.77
1901	2	0.05	1912	3	0.05
1902	44	1.14	1913	1	0.01
1903	0	0.00	1914	2	0.03
1904	12	0.30	1915	59	1.09
1905	9	0.23	1916	1	0.01
1906	1	0.02	1917	1	0.01
1907	0	0.00	1918	2	0.03
1908	33	0.83	1919	3	0.05
1909	1	0.02	1920	2	0.03
1910	0	0.00			

Whooping Cough.—The cases notified by Teachers were:—January, 7; February, 5; March, 3; May, 3; June, 1; July, 10; September, 21; October, 1; November, 1; December, 9. Total, 61.

The mortality record since 1900 is as follows:—

	Deaths.	Death-rate.		Deaths.	Death-rate.
1900	21	0.55	1911	0	0.00
1901	0	0.00	1912	19	0.23
1902	5	0.13	1913	12	0.21
1903	7	0.18	1914	2	0.03
1904	0	0.00	1915	2	0.03
1905	0	0.00	1916	15	0.26
1906	16	0.40	1917	0	0.00
1907	0	0.00	1918	1	0.01
1908	32	0.80	1919	1	0.01
1909	0	0.00	1920	0	0.00
1910	8	0.20			

Tuberculosis.—The number of notifications received each year since 1912 is as follows:—

	1913	1914	1915	1916	1917	1918	1919	1920
Pulmonary Tuberculosis	48	102	145	111	105	107	130	135
Non " "	13	13	11	41	66	28	36	23
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	61	115	156	152	171	135	166	158

The age and sex distribution of the cases was:—

	0—5	5—15	15—25	25—45	45—65	65 & over	Total.
Pulmonary Cases:—							
Males ...	—	22	17	20	12	3	74
Females	1	13	10	26	8	3	61
Non-Pulmonary:—							
Males ...	—	8	2	—	2	—	12
Females	—	5	3	1	1	1	11

The number of persons suffering from Tuberculosis of the Lungs and under supervision by the Tuberculosis Officer at the end of the year was 363. The number of persons suffering from other forms of Tuberculosis at this date and under supervision was 116.

The number of special reports upon cases sent to him received from the Tuberculosis Officer was:—In 1916, 58; in 1917, 105; in 1918, 41; in 1919, 51; and in 1920, 136.

The number treated in an Institution (Sanatorium or Poor Law) was 78, or 51 per cent. of the total number of cases notified. The proportion in 1919 was 37, and in 1918, 27 per cent.

The number of deaths recorded from various forms of Tuberculosis was:—

	Pulmonary.		All other forms.		
	Male.	Female.	Abdominal.	Meningeal.	Others.
1913	31	17	2	4	7
1914	28	33	2	2	8
1915	29	26	3	7	4
1916	36	25	2	5	2
1917	23	26	4	7	9
1918	45	31	1	3	5
1919	16	19	4	9	4
1920	28	15	1	2	5

Ophthalmia Neonatorum.—This disease became notifiable on April 1st, 1914, and the number of cases notified each year has been:—

1914	1915	1916	1917	1918	1919	1920
11	6	17	14	6	12	9

Cerebro-Spinal Fever.—Two cases were notified, a male aged 21 in February, and a female aged 26 in December.

The first case was that of an undergraduate who, after being away from Cambridge during the Christmas vacation, returned on January 13 or 15. The illness began on January 30th, and terminated fatally on February 9th.

The second case was a lady who came on a visit to Cambridge on December 23rd. She sickened apparently two days later, and died on the 30th December.

Encephalitis Lethargica.—The particulars of the seven cases occurring in Cambridge are as follows:—

1. Female, married, aged 25. Onset January 7th. Result—recovery.
2. Male 13 years. Onset apparently in February, but not seen until 3 months later. Ended in recovery.
3. Male aged 68. Onset October 20th. Died November 24th.
4. Male aged 62. Onset December 29th. Recovered.
5. Female aged 24, single. Onset December 18th. Recovered.
6. Female aged 21. Onset December 19th. Died December 24th.
7. Male aged 57. Onset December 16th. Died January 4th, 1921.

Other Infectious Diseases.—Other diseases notified were Pneumonia 22, Malaria 7 (all contracted abroad), and Dysentery 4. No cases of Small Pox or Infantile Paralysis were notified in 1920.

Cancer.—Under this heading are grouped all deaths registered as due to Cancer, Carcinoma, Malignant Disease, Epithelioma, and Sarcoma.

The annual average for the years 1893—1902 is 37, or 0·91 per 1,000 of the population; for 1903—1912, 46, or 1·05 per 1,000, and 1913—1920, 76, or 1·31 per 1,000.

The deaths and death-rate for the years 1913—1920 are set out in the following table:—

	Deaths.		Total.	Death-rate per 1000.	
	Males.	Females.			
1913	34	36	70	1·22	
1914	24	43	67	1·17	
1915	33	50	83	1·53	
1916	37	41	78	1·49	
1917	41	41	82	1·57	
1918	28	43	71	1·36	
1919	27	52	79	1·36	
1920	35	43	78	1·29	

Diseases of the Respiratory System.—The deaths recorded from the principal diseases in this group are set out in the following table:—

	Average									
	1903—12	1913	1914	1915	1916	1917	1918	1919	1920	
Bronchitis	39	29	44	93	74	50	47	64	41	
Pneumonia	20	15	11	38	21	20	25	17	15	
Broncho-pneumonia	16	8	24	28	11	15	27	17	7	
Others	8	17	16	16	14	10	5	6	6	
Total	83	69	95	175	120	95	104	104	69	

MATERNITY AND CHILD WELFARE.

By arrangement with the County Council, which is the supervising Authority under the Midwives Acts, notifications which Midwives are

required to make under these Acts are sent to the Borough Medical Officer. The Superintendent of Midwives also reports on all such cases to the Borough Medical Officer.

The notifications received from Midwives during the year include :— Still-births, 11 ; Ophthalmia Neonatorum, 2 ; Sending for Medical Help, 69 ; Laying out Dead Body, 2.

The work of Maternity and Child Welfare is undertaken by the Statutory Committee of the Council in co-operation with various voluntary bodies. The chief of these is the Cambridge Association for Maternity and Child Welfare. This body practically undertook all the work done in the town from its beginning in March, 1906, up to the end of 1918, and is still engaged in carrying on the Infant and Maternity Consultation Centres. Hospital provision for mothers, and children under five, exists in Addenbrooke's Hospital, and for infectious diseases in the Isolation Hospital. The Ely Diocesan Maternity Home was opened during the year, and provides for twelve unmarried mothers and their babies, while convalescent mothers can now be sent to Hunstanton.

Work of the Health Visitors.—The number of visits paid during the year to infants, young children, and mothers are set out in the following table :—

	1919	1920
First Visits to Infants	723	980
Subsequent „	2123	2067
Visits to children 1—5 years	385	321
First visits to Expectant Mothers	73	57
Subsequent „ „	37	25
Other Cases	131	82
Totals	3472	3532

Infant Consultations.—The four centres are attended every week by the Health Visitors and once a fortnight by the Doctor. Dried Milk, Virol, Malt and Oil are sold generally at cost price, but at half price or free according to circumstances. The amount actually expended by the Council on milk during the year ended 31st March, 1921, was £158. All cases unable to pay the full price are sent to the Central Aid Association for enquiry and report, and the Medical Officer is authorised pending this report to act upon the information received from the Health Visitors.

The following figures give the attendances at each Centre during 1920 :—

	Under 1.		1-5.		Expectant Mothers.	
	Children.	Attendances.	Children.	Attendances.	No. of Women.	Attendances.
Castle End	166	1158	35	230	2	4
Newmarket Rd.	206	1818	61	336	5	9
Parkside ...	105	742	54	236	2	3
Romsey Town	121	978	73	292	2	4
Totals	598	4696	223	1094	11	20

2.—UNFIT DWELLING HOUSES.

1. <i>Inspection :</i>	
(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1042
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	87
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	7
(4) Number of dwelling-houses (exclusive of those referred to under 3) found not to be in all respects reasonably fit for human habitation...	619
2. <i>Remedy of defects without service of formal notices :</i>	
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	540
3. <i>Action under Statutory Powers :</i>	
A. Proceedings under Sec. 28, Housing, Town Planning, etc., Act, 1919.	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	24
(2) Number of dwelling-houses which were rendered fit—	
(a) By Owners	8
(b) By Local Authority in default of Owners	—
(3) Number of dwelling-houses in respect of which closing orders became operative in pursuance of declarations by owners of intention to close ...	—
B. Proceedings under Public Health Acts :—	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	32
(2) Number of dwelling-houses in which defects were remedied—	
(a) By Owners	18
(b) By Local Authority in default of Owners	—
C. Proceedings under Sec. 17 & 18, Housing, Town Planning, etc., Act, 1909 :—	
(1) Number of representations made with a view to making of closing orders	7
(2) Number of dwelling-houses in respect of which closing orders were made	—
(3) Number of dwelling-houses in respect of which closing orders were determined, the dwelling-houses having been rendered fit	2
(4) Number of dwelling-houses in respect of which demolition orders were made	—
(5) Number of dwelling-houses demolished in pursuance of demolition orders	—

3.—UNHEALTHY AREAS.

No action was taken during 1920 in connection with any areas with a view to improvement schemes.

4.—

Six houses which did not comply with the building byelaws were erected with consent of the Local Authority under section 25 of the Housing, Town Planning, &c., Act, 1919.

5.—STAFF ENGAGED ON HOUSING WORK.

Those, apart from members of the Medical Officer's and Borough Surveyor's staffs, are:—Mr. J. D. Bland, Architect, with two Architectural Assistants, and a Clerk. There is a Clerk of Works (Mr. Feak) for the permanent housing scheme, and a Resident Superintendent (Mr. Pitstow) for the temporary housing scheme at Burrell's Walk.

SALE OF FOOD AND DRUGS ACTS.

The following table shows the number and character of the samples taken in 1920:—

	Number.	Genuine.	Not Genuine	Prosecutions*	Convictions.
Milk (formal)	77	68	9	7	1
Milk (informal)	6	5	1	—	—
Butter (formal)	16	16	—	—	—
Coffee "	12	12	—	—	—
White Pepper (formal)	9	9	—	—	—
Ground Ginger "	6	6	—	—	—
Oatmeal "	6	6	—	—	—
Arrowroot "	4	4	—	—	—
Cream Buns "	4	4	—	—	—
Rice "	3	3	—	—	—
Lard "	2	2	—	—	—
Cornflour "	2	2	—	—	—
Total	147	137	10	7	1

The number of samples taken each year since 1910 is as follows :—

		Number.	Not Genuine.	Percentage not Genuine.	Prosecutions.	Convictions.
1910	...	106	12	11.3	5	2
1911	...	114	14	12.3	8	7
1912	...	126	36	28.5	4	2
1913	...	120	27	22.5	5	4
1914	...	165	13	7.8	9	9
1915	...	107	9	8.4	9	5
1916	...	123	12	9.7	8	8
1917	...	124	12	9.7	9	8
1918	...	109	7	6.4	6	6
1919	...	128	3	2.3	1	1
1920	...	147	10	6.8	7	1

Administrative action regarding samples reported not genuine :—

Name of Articles.	Register No.	Result of Analysis.	Remarks.
Milk	54	16% deficient in fat.	No action taken.
"	57	13% "	Check sample on 54 taken in course of delivery at Railway Station. Summons dismissed.
"	60	14% "	In course of delivery at Station "
"	65	8% "	" "
"	66	12% "	" "
"	67	7% "	" "
"	69	9% "	" "
"	71	15% "	Informal from Infectious Diseases Hospital.
"	108	3% "	Letter of warning sent.
"	139	18% added water.	Convicted and fined £10 10s. od. including costs.

In the cases of deficiency of milk fat the summons were dismissed, the defendants proving that the milk was as it came from the cows, citing *Hunt v. Richardson*.

In the cases where the percentage of milk fat was only 3 or a little less, the attention of the purveyors was directed to the poor quality of their milk.

All samples likely to contain preservatives were examined for these, but in none was any preservative found.

Twenty-nine samples of milk were taken in course of delivery at the Railway Station, at Institutions, and at the time of delivery to the retailer.

Three samples of milk were bacteriologically examined for tubercle bacilli with negative results.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912—17.

1. Milk and Cream not sold as Preserved Cream.

	No. of samples examined for Preservatives (a)	No. with Preservatives present (b)
Milk	83	None
Cream	None	None

2. Cream sold as Preserved Cream.

No samples of Cream were taken under these Regulations, as, owing to the prevailing high price of farm butter, cream was very scarce, and could only be obtained to order.

FOOD.

Milk (Mothers and Children) Order, 1919.—A note regarding the action taken by the Maternity and Child Welfare Committee under this Order will be found on page 15.

Meat.—Considering the fact that all the slaughtering is done on private premises the efficiency of the inspection exercised is extremely satisfactory. The butchers themselves largely contribute to this through their Association. An insurance fund has been in existence now since 1910, and all members of the Association undertake to notify any suspected meat to the Medical Officer of Health.

The following table shows the amount of meat which was condemned in 1920. It is divided into two half-yearly periods to show the effect of the removal of meat control at the end of June.

	January to June.			June to December.			Totals.		
	cwts.	st.	lbs.	cwts.	st.	lbs.	cwts.	st.	lbs.
Beef ...	98	0	12	8	4	4	106	5	2
Mutton ...	71	3	1	4	6	12	76	1	13
Pork ...	11	0	10	9	0	12	20	1	8
Veal ...	2	4	2	—	—	—	2	4	2
	<u>183</u>	<u>0</u>	<u>11</u>	<u>22</u>	<u>4</u>	<u>0</u>	<u>205</u>	<u>4</u>	<u>11</u>

It will be noticed that the amount condemned during control was nearly nine times more than when control had been removed, and the question which naturally arises is, where is the meat going which during the period of control was inspected and condemned in Cambridge? Is it being disposed of in places where there is little or no supervision by competent meat inspectors?

Other foods condemned during the year included:—

	cwts. st. lbs.		
Fish	7	4	13
Bacon	—	4	12
Syrup	7	—	—
Rabbits	2	1	—
Tomatoes	5	1	6
Potatoes	1	—	—
Apples	2	1	2
Plums	—	4	—
Nuts	3	2	—
Tripe	—	2	6
Butter	—	—	4
Oranges... ..	1 case.		
Bananas	1½ cases.		
Chickens	12		

In addition to the above the following Tinned Foods were condemned:—Milk, 22 tins; Sardines, 3; Salmon, 5; Corned Beef, 10; Tomatoes, 57; Crayfish, 11; Lobster, 1; Pineapple, 9.

Slaughterhouses.—The following statement shows the number of slaughterhouses in use in the Borough at the dates mentioned:—

	In 1914.	In Jan. 1920.	In Dec. 1920.
Registered ...	16	13	13
Licensed ...	11	12	12
	—	—	—
	27	25	25
	—	—	—

These premises were all reported upon in 1910, and again during the year. This latter report is still under consideration by the Public Health Committee.

COMMON LODGING HOUSES.

There are now only seven common lodging houses in the Borough. Eighty-eight inspections of these premises were made by the Sanitary Inspector during the year.

FACTORIES AND WORKSHOPS.

I.—INSPECTION.

INCLUDING INSPECTIONS MADE BY THE INSPECTOR OF NUISANCES.

Premises.	Inspections.	Written Notices.
Factories (including Factory Laundries)...	60	8
Workshops (including Workshop Laundries and Bakehouses)	598	11
Workplaces	95	3
	753	22

2.—DEFECTS FOUND.

Nuisances under the Public Health Act :

	No. of Defects Found.	Remedied.
Want of Cleanliness...	22	22
Want of Ventilation	—	—
Overcrowding	2	2
Want of Drainage of Floors	4	4
Other Nuisances	16	16
Sanitary Accommodation {	insufficient	1
	unsuitable or defective	1
	not separate for sexes	1

Offences under Factories and Workshops Act :

Illegal occupation of underground Bakehouse (S. 101)	0	0
Breach of special sanitary requirements for Bakehouses (SS. 97 to 100)	15	15
	—	—

3.—HOME WORK.

List of Out-Workers (Section 107) :

List received from employers.	Total	Twice in the	Once in the
Wearing Apparel—	Lists.	Year.	Year.
	Lists.	Out-workers.	Lists. Out-workers.
(1) Making, etc.	98	47	907
(2) Cleaning and Washing	—	0	0
Addresses of {	Received from other		
	Councils	2	4
Out-workers {	Forwarded to other		
	Councils	5	216
Prosecutions (failure to send in lists)		0	0
No. of Inspections of Out-workers' Premises		116	
Out-work in unwholesome Premises (Sec. 158)		2	
Out-work in infected Premises (Secs., 109, 110)		0	

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year ... 520

5.—OTHER MATTERS.

Matters Notified to H.M. Inspector of Factories :

Class.	Number.
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	0
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Acts (S. 5)	7
Other	0
<i>Underground Bakehouses (S. 101) :</i>	
Certificates granted during the year	0
In use at the end of the year	4

CANAL BOATS.

ANNUAL REPORT UNDER THE CANAL BOATS ACTS, 1877—1884.

1. Leslie Herbert Dibblin, 55, Victoria Road, Cambridge.
2. The number of boats inspected during the year was 3 (15 inspections).
3. There were no infringements of the Acts and Regulations.
4. No legal proceedings were taken during the year.
5. There were no women or children on board, and no case of infectious disease has been notified or traced.
6. No boats have been detained for cleansing or disinfection.
7. The Cambridge Corporation is not a Registration Authority.

RAG AND FLOCK ACT.

Five samples of flock were submitted to the Public Analyst for analysis and were found to be in conformity with the Regulations.

RECORD OF SANITARY INSPECTORS' WORK DURING 1920.

INSPECTIONS :	Total.
Number of premises visited on complaint	319
Number of premises visited in connection with infectious disease... ..	34
Total number of inspections and re-inspections	3825
NOTICES :	
Preliminary Intimations	270
Statutory Notices... ..	29
Summonses... ..	—

HOUSES (Housing Act, 1909) :

Houses inspected—house to house	...	...	...	...	...	87
Number of houses represented	...	...	...	...	...	3
Number of Closing Orders made	...	...	...	...	...	3
Number of houses made habitable after Closing Order	...	...	...	...	...	8
Number of houses demolished voluntarily	...	...	...	...	...	0
Number of houses demolished after closing Order	...	...	...	...	...	2

COMMON LODGING HOUSES :

Number registered	...	...	...	...	...	7
Number of inspections	...	...	...	...	...	88
Number of Contraventions of Bye-Laws	...	...	...	...	...	11
Number discontinued since 1st January, 1919	...	...	...	...	...	—

FACTORIES :

Number of inspections	...	...	...	...	...	60
Number of defects found	...	...	...	...	...	8
Number of defects remedied	...	...	...	...	...	8

WORKSHOPS :

Number on register	...	...	...	...	...	520
Number of inspections	...	...	...	...	...	389
Number of defects found	...	...	...	...	...	19
Number of defects remedied	...	...	...	...	...	19

BAKEHOUSES :

Number on register	...	...	...	...	...	68
Number of inspections	...	...	...	...	...	209
Number of defects found	...	...	...	...	...	15
Number of defects remedied	...	...	...	...	...	15
Number cleansed and limewashed	...	...	...	...	...	70

SLAUGHTERHOUSES :

Number registered	...	...	...	...	...	13
Number licensed (five annual licenses)	...	...	...	...	...	12
Number of inspections	...	...	...	...	...	2728
Number of defects found	...	...	...	...	...	10
Number of defects remedied	...	...	...	...	...	10
Number cleansed and limewashed	...	...	...	...	...	96

COWKEEPERS :

Number on register	...	...	...	...	...	23
Number of inspections	...	...	...	...	...	184
Number of defects found	...	...	...	...	...	2
Number of defects remedied	...	...	...	...	...	2

DAIRIES AND MILKSHOPS :

Purveyors on register	...	...	...	...	...	59
Number of inspections	...	...	...	...	...	152
Number of defects found	...	...	...	...	...	3
Number of defects remedied	...	...	...	...	...	3
Cleansed and limewashed	...	...	...	...	...	48

FOOD AND DRUGS ACTS :

Samples taken	147
Number adulterated	10
Prosecutions	7
Convictions... ..	1

RAG AND FLOCK SAMPLES	5
------------------------------	---

SCHOOLS :

Number of inspections	53
Number of defects found (<i>re</i> W.C.'s, etc.)	18

VANS :

Number inspected	45
Number found unsatisfactory	3

Description of Sanitary Work carried out:—

HOUSES :

Cleansed and limewashed	20
Provided with damp-proof courses	43
Wood floors ventilated and repaired	64
Roofs, gutters and downspouts fixed or repaired	353
Rainwater pipes disconnected from drains	34
New floors laid	112
New sinks fixed	65
Supplied with a sufficient supply of water	37
Accumulation of manure or refuse removed... ..	82
Nuisances arising from keeping swine and other animals abated... ..	26
Pavements of yards repaired	57
Pavements of yards relaid with impervious material... ..	103
Overcrowding abated	8

DRAINS :

New drains constructed	52
Intercepted from sewer and ventilated	17
Waste pipes of sinks disconnected	6
" " " " trapped or renewed	22
Cleansed or repaired	185
Drain openings removed from inside buildings	16
Smoke tests applied	58
Water tests applied	—

WATER CLOSETS :

New closets provided	15
Provided with flushing cisterns	106
Repairs to flushing cisterns	139
Closets cleansed or limewashed... ..	24
New " pans " provided	89
Repaired	32

SMOKE OBSERVATIONS	1
---------------------------	---

MISCELLANEOUS WORKS NOT CLASSIFIED ABOVE	359
---	-----

DISINFECTION.

The following is a summary of the work done during the year 1920 :—

Disease, etc.	No. of Articles.	No. of Rooms.
Scarlet Fever	762	52
Diphtheria	2304	104
Phthisis... ..	223	47
Cancer	124	14
Measles	11	39
Gangrene	6	—
Chicken Pox	32	27
Pneumonia	5	—
Enteric Fever	7	—
Scabies	141	3
Cerebro-Spinal Meningitis	7	3
Vermin	187	3
Sepsis	1205	—
Miscellaneous	246	17
Totals	5260	309

The articles disinfected were :—Beds, 58 ; Palliasses, 18 ; Mattresses, 430 ; Bolsters, 166 ; Pillows, 1,144 ; Cushions, 76 ; Blankets, 372 ; Sheets, 74 ; Quilts, 95 ; Clothes, 2,700 pieces ; Miscellaneous, 127. Total, 5,260.

The total number of visits to infected houses by the Disinfector was 197 ; the total number of stovings 161.

INFECTIOUS DISEASES HOSPITAL.

The number of cases dealt with in Hospital during 1920 was as follows :—

	In Hospital Dec. 31st, 1919.	Admitted.	Discharged.	Died.	In Hospital Dec. 31st, 1920.
Scarlet Fever	4	49	44	—	9
Diphtheria	20	115	117	3	15
Diphtheria " Carriers " and Contacts	9	58	63	—	4
Measles	—	14	14	—	—
German Measles	—	1	1	—	—
Chicken Pox	—	12	12	—	—
Mumps	—	4	4	—	—
Typhoid Fever... ..	—	1	1	—	—
Erysipelas	—	1	1	—	—
Whooping Cough	—	1	1	—	—
Vincent Argina	—	1	1	—	—
Scabies	—	2	2	—	—
Totals... ..	33	259	261	3	28

The following table gives details as to the average cost of maintenance per patient, etc., for the past twenty-two years:—

Year.	Total treated	Average daily number.	Average residence in days.	Daily cost per head for Food.		Daily cost per head for Food and Drugs.		Cost per patient per day		Average cost per patient.		
				s.	d.	s.	d.	s.	d.	£	s.	d.
1898-9	121	14.0	42.3	1	1 $\frac{3}{4}$	1	4 $\frac{1}{2}$	5	2 $\frac{1}{2}$	11	1	3 $\frac{3}{4}$
1899-00	125	13.0	38.0	1	2 $\frac{1}{2}$	1	5	5	4	10	2	10 $\frac{1}{2}$
1900-1	127	16.5	47.4	1	0 $\frac{1}{4}$	1	1 $\frac{1}{2}$	4	2 $\frac{1}{2}$	9	19	10
1901-2	98	10.7	39.8	1	2	1	4 $\frac{1}{2}$	7	6 $\frac{3}{4}$	15	1	10
1902-3	245	28.1	41.9		10 $\frac{1}{2}$		11 $\frac{1}{2}$	4	0	8	8	1 $\frac{3}{4}$
1903-4	269	31.1	42.4		11	1	0	4	2	8	17	2 $\frac{3}{4}$
1904-5	127	11.0	31.7		11 $\frac{1}{2}$	1	1 $\frac{1}{2}$	8	0 $\frac{3}{4}$	13	12	1 $\frac{1}{2}$
1905-6	148	15.0	37.0	1	1 $\frac{1}{4}$	1	2 $\frac{1}{2}$	7	1 $\frac{1}{2}$	13	4	2 $\frac{1}{2}$
1906-7	179	19.1	38.9		11 $\frac{1}{4}$	1	1	6	1	11	17	6 $\frac{1}{2}$
1907-8	152	12.3	29.7		11 $\frac{1}{2}$	1	1 $\frac{3}{4}$	8	2 $\frac{1}{2}$	12	3	6 $\frac{1}{2}$
1908-9	185	15.1	29.8	1	0 $\frac{3}{4}$	1	3 $\frac{1}{2}$	7	0	10	9	2 $\frac{1}{4}$
1909-10	223	21.9	35.8		10 $\frac{3}{4}$	1	1	5	1 $\frac{1}{2}$	9	1	9 $\frac{3}{4}$
1910-11	240	23.3	35.4		10 $\frac{1}{4}$	1	1 $\frac{1}{4}$	4	10 $\frac{1}{2}$	8	12	8 $\frac{1}{2}$
1911-12	513	46.0	32.8		9 $\frac{1}{4}$		11 $\frac{1}{4}$	3	3	5	6	7 $\frac{3}{4}$
1912-13	569	53.7	34.4		8 $\frac{3}{4}$		11	3	0 $\frac{1}{2}$	5	5	0 $\frac{1}{4}$
1913-14	407	42.8	38.4		8 $\frac{3}{4}$		11 $\frac{1}{4}$	3	5	6	11	1 $\frac{3}{4}$
1914-15	441	32.5	26.9		10 $\frac{1}{4}$	1	0 $\frac{1}{2}$	4	2 $\frac{3}{4}$	5	13	11 $\frac{3}{4}$
1915-16	436	33.6	28.2		11 $\frac{1}{2}$	1	1	4	4 $\frac{1}{2}$	6	3	7 $\frac{1}{2}$
1916-17	411	32.0	28.4	1	2 $\frac{1}{4}$	1	3 $\frac{3}{4}$	4	7	6	10	2 $\frac{1}{4}$
1917-18	381	23.7	22.7	1	6 $\frac{1}{2}$	1	8 $\frac{1}{4}$	5	10 $\frac{3}{4}$	6	11	2 $\frac{1}{4}$
1918-19	396	26.8	24.7	1	4 $\frac{3}{4}$	1	6 $\frac{1}{2}$	6	0 $\frac{1}{2}$	7	9	4 $\frac{3}{4}$
1919-20	384	38.3	36.5	1	2	1	6 $\frac{1}{4}$	4	10 $\frac{3}{4}$	8	19	0 $\frac{3}{4}$

The hospital expenditure for a number of years back is given in the following table:—

	Salaries and Wages.	Food.	Drugs and Disinfectants.	Other Items.	Total.
	£	£	£	£	£
1898-9	295	548	63	433	1339
1899-00	336	554	47	331	1268
1900-1	303	531	33	402	1269
1901-2	348	547	41	543	1479
1902-3	528	732	45	885	2060
1903-4	518	828	55	983	2384
1904-5	478	511	34	705	1728
1905-6	499	664	31	761	1955
1906-7	616	633	50	827	2126
1907-8	532	537	40	742	1851
1908-9	626	639	64	606	1935
1909-10	610	659	74	698	2041
1910-11	650	681	93	648	2072
1911-12	835	917	146	837	2735
1912-13	898	992	186	912	2988
1913-14	768	898	163	840	2669
1914-15	755	881	116	761	2513
1915-16	733	1005	99	858	2695
1916-17	610	1154	71	840	2675
1917-18	582	1251	58	708	2599
1918-19	723	1222	71	942	2958
1919-20	917	1277	129	1145	3438

TABLE IIIA.

BOROUGH OF CAMBRIDGE, 1920.

Table showing Causes of Death at Different Age Periods during the Year.
Persons.—(Males and Females.)

CAUSES OF DEATH.	AGES AT DEATH.													St. Andrew-the-Less.	St. Andrew-the-Great.	Chesteron.	Cambridge Without.			
	All Ages.	Under 5 years.					10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65					65 to 75	75 and upwards.	
		0 to 1	1 to 2	2 to 5	5 to 10															
All Causes ...	568	50	6	6	6	10	4	6	9	28	36	70	93	109	141	351	70	105	42	
I.—General Diseases.																				
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox { Vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Not Vaccinated	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Doubtful ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	2	1	1	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	3	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza... ..	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Miliary Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera Nostras... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yellow Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Leprosy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mumps ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
German Measles ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<i>General Diseases—continued.</i>																			
Varicella
Pyæmia Septicæmia	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders
Anthrax (Splenic Fever)
Rabies
Tetanus
Mycoses
Pallagra
Beri-beri
Pulmonary Tuberculosis	...	38	...	...	1	...	...	1	5	8	6	6	7	3	1	31	1	2	4
Phthisis (not otherwise defined)	...	4	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...	...	...
Acute Phthisis	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Tuberculous Meningitis	...	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Tuberculous Peritonitis	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica
Tuberculosis of Spinal Column...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Tuberculosis of Joints
Tuberculosis of other organs
Lupus
Scrofula
Disseminated Tuberculosis	...	4	...	...	1	...	...	...	...	...	1	...	...	1	...	...	...	...	...
Rickets	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis	3	2	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...
Other Venereal Diseases
Cancer of the Buccal Cavity	...	5	...	...	...	...	...	...	...	...	...	...	3	1	1	4	1	...	...
Cancer of Stomach, Liver, &c...	...	32	...	...	...	...	...	...	...	...	1	8	10	9	4	20	5	5	2
Cancer of Peritoneum, Intes- tines, and Rectum	16	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Cancer of female genital organs	...	7	...	...	...	...	...	...	...	...	1	1	3	8	2	11	2	1	2
Cancer of Breast	...	11	...	...	...	...	...	...	1	1	1	2	1	2	...	3	2	2	...
Cancer of Skin	1	2	1	3	4	4	...	4	3
Cancer of other organs	7	...	...	...	...	...	...	...	...	...	1	4	...	2	3	3	1	...
Other Tumours
Rheumatic Fever	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Chronic Rheumatism	...	2	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...
Osteo Arthritis	2	...	...	...	...	...	...	...	...	...	...	1	...	1	2	...	1	...
Gout
Scurvy
Diabetes	6	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Exophthalmic Goitre	...	1	...	...	...	...	...	...	...	...	1	1	2	1	1	3	3	...	1

TABLE IIIA., 1920.—Continued.

CAUSES OF DEATH.	All Ages.	AGES AT DEATH.										St. Andrew-the-Less.	St. Andrew-the-Great.	Chesteron.	Cambridge Without.			
		Under 5 Years.			5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55					55 to 65	65 to 75	75 and upwards.
		0 to 1	1 to 2	2 to 5														
VII.—The Puerperal State.																		
Abortion ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Accident of Pregnancy ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Haemorrhage	I	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..
Other Accidents of Childbirth	I	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..
Puerperal Fever... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Albuminuria and Convulsions ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Phlegmasia ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Insanity ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Dis. of the Breast ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII.—Diseases of the Skin and of the Cellular Tissue.																		
Senile Gangrene... ..	4	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..
Gangrene of other types ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Carbuncle, Boil ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phlegmon, Acute Abscess	I	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..
Ulcer, Bedsores ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eczema ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pemphigus ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ot. Dis. of Integumentary Sys. ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IX.—Diseases of the Bones and of the Organs of Locomotion.																		
Diseases of the Bones	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the Joints ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amputations ... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ot. Dis. of the Locomotor Sys....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE IIIA., 1920.—Continued.

CAUSES OF DEATH.	AGES AT DEATH.												St. Andrew-the-Less.	St. Andrew's the Great.	Chesteron.	Cambridge Without.				
	All Ages.	Under 5 Years.					5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45					45 to 55	55 to 65	65 to 75	75 and upwards.
		0 to 1	1 to 2	2 to 5																
XIV.—Ill-defined Causes.																				
Dropsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syncope (1 year & under 70) ...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart failure (1 yr. & under 70)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus (1 year and under 70)...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Teething ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyrexia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Ill-defined Deaths ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Causes not specified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		

SCHOOL REPORT

INDEX.

NUMBER OF SCHOOLS, ETC.	39
CO-OPERATION OF TEACHERS AND PARENTS ...	39
GENERAL PHYSIQUE—RECORD OF HEIGHT & WEIGHT	40
RESULTS OF INSPECTIONS :	
Nutrition	42
Clothing and Footgear	42
Cleanliness	42
Ringworm	42
Eye Disease... ..	42
Defective Vision	42
Enlargement of Glands	43
Enlarged Tonsils ; Adenoids	43
Ear Disease and Defective Hearing	43
Disease of Lungs	43
Heart Disease	43
Defects of Speech	43
Other Defects	43
Vaccination	43
INFECTIOUS DISEASES :	
School Notifications	43
School Closure	44
TREATMENT :	
At Addenbrooke's Hospital	44
Inspection and Treatment Clinic	44
Summary of School Nurses' Work	44
Eye Clinic	45
PHYSICALLY DEFECTIVE CHILDREN :	
Open-Air School	45
BACKWARD AND MENTALLY DEFICIENT CHILDREN	45
CO-OPERATION OF VOLUNTARY BODIES	46
EMPLOYMENT OF SCHOOL CHILDREN	47
APPENDIX : OFFICIAL TABLES	47

Report of School Medical Officer

FOR THE YEAR 1920.

Staff:

<i>School Medical Officer</i>	...	ANDREW J. LAIRD, M.D., C.M., D.P.H.
<i>Assistant School Medical Officer and School Oculist</i>		A. MABEL GURNEY, M.B., CH.B., D.P.H.
<i>School Dentist</i>	... ..	W. H. JONES, M.A., L.D.S. (Eng.), to November 30.
<i>Assistant School Dentist</i>	...	L. MACHIN, L.D.S. (Eng.), to May, 1920.
<i>School Nurses</i>	... ..	MISS STEVENS, MISS NICHOLS.
<i>Dental Attendants</i>	... ..	MISS MUNCEY, MISS BENNETT.
<i>Clerks</i>	... ..	MR. R. R. WALLIS, MISS WALLIS.
<i>School Clinic.</i> —35, PARKSIDE (opened October, 1920).		

Number of Schools, 24; Number of Departments, 43; Average number of children on Registers, 8,113; Average Attendance, 7,140.

Co-ordination of school work with that of the Public Health Authority is secured by the two medical officers acting also as Medical Officer of Health and Assistant Medical Officer of Health, the routine medical inspection being performed by the Assistant Medical Officer.

Co-operation of Teachers, Attendance Officers and Parents. The Teachers make all the preliminary arrangements for the inspections, selecting suitable rooms for inspections, filling up certain portions of the record forms, and issuing invitations to Parents. The Attendance Officers notify cases of infectious disease, and children whose cases require enquiring into by the Medical Officers. The Co-operation of the Parents is sought by inviting their presence at the inspections, and by the visits of the School Nurses to the homes.

Medical Inspection.—With a few exceptions the inspections have all been made on the school premises. Occasionally a teacher's room or cookery room or hall is used, but the most common arrangement is for two classes to be put into one room so as to leave a classroom for the inspection. The disturbance of school arrangements involved is very little.

The inspections have taken place elsewhere than on the school premises in the following cases:—St. Andrew's Boys' School, in the Mission Room, Old Chesterton; St. Paul's Infants' School, in the St. Paul's Institute, Coronation Street.

The following figures show the number of children examined at routine inspections, and the number of children not belonging

to age groups examined for some special reason. The total number inspected was just over one half of the average attendance.

Routine Inspections.	Boys.	Girls.	Total.
Entrants	658	650	1308
Age 8 Group...	359	305	664
Leavers	707	746	1453
Other Ages (7, 9, 10, 11)	50	68	118
	<hr/>	<hr/>	<hr/>
	1774	1769	3543
Special cases	73	83	156

The proportion of children accompanied by a Parent at routine inspections was 49 per cent.

Inspection and Treatment Clinic.—The work carried on here includes the examination of children referred for further examination from the Schools, and since September, 1916, the treatment of minor ailments. So far it has been carried on in the Nurses' Room at the Guildhall, but the work has grown so rapidly that it is now no longer possible to accommodate all who attend. Premises have been taken at 35, Parkside, where the Dental and Eye Clinics were already established, and the whole of the work has been carried on there since October, 1920.

The number *attending* each year has been 1916, 330 ; 1917, 457 ; 1918, 449 ; 1919, 908 ; 1920, 1,596.

The conditions and numbers of children *treated* were :—

Children treated.	Eye disease.	Otorrhoea.	Sores & Skin diseases.	Ringworm.	Others.
1916 258	... 14	... 30	... 205	... 9	...
1917 249	... 36	... 15	... 174	... 10	... 14
1918 365	... 59	... —	... 160	... 43	... 103
1919 738	... 146	... 13	... 301	... 29	... 249
1920 677	... 252	... 33	... 180	... 31	... 181

Review of the facts disclosed by medical inspection :—

Height and Weight.—The following tables give the height and weight for boys and girls during 1919 and 1920, and for purposes of comparison the figures for 1913 and 1914, the last two complete pre-war years. Generally speaking where the numbers are large enough to warrant any conclusions being drawn from them, the physique of both boys and girls in the "entrant," "intermediate," and "leaver" groups compares favourably with the records for the pre-war years.

Boys (Height and Weight).

Years.	No. exam- ined 1920.	Average Height in Inches.				Average Weight in Pounds.			
		1913	1914	1919	1920	1913	1914	1919	1920
3	59	35.98	35.70	37.43	36.94	33.27	31.88	32.70	32.77
4	122	38.12	38.57	37.89	38.92	34.65	35.69	36.00	35.52
5	246	40.89	40.69	40.82	41.52	38.98	38.66	39.25	39.91
6	231	43.13	43.01	42.72	43.71	43.00	43.13	42.88	43.23
7	25	44.98	44.74	45.30	44.51	46.46	46.11	48.00	44.51
8	359	48.40	47.30	46.01	47.50	53.13	51.63	51.10	51.63
9	16	49.44	49.73	46.36	42.78	56.61	57.29	49.88	58.20
10	1	50.43	50.64	48.16	52.00	59.11	60.01	53.50	55.25
11	8	52.86	53.27	52.62	55.62	67.00	67.51	64.93	73.69
12	319	54.76	54.68	53.10	55.21	73.33	72.34	71.24	73.66
13	284	56.32	56.22	57.32	57.02	78.76	77.29	77.82	81.60
14	88	57.75	58.33	58.14	59.34	83.55	87.72	88.41	90.50
15	16	—	—	—	61.42	—	—	—	101.84

GIRLS (Height and Weight).

Years.	No. exam- ined 1920.	Average Height in Inches.				Average Weight in Pounds.			
		1913	1914	1919	1920	1913	1914	1919	1920
3	55	35.11	35.62	35.47	36.08	31.33	31.58	31.17	30.92
4	118	37.94	38.05	37.66	38.66	34.59	34.49	34.40	34.80
5	248	40.60	40.76	40.25	40.84	38.83	37.99	37.36	37.84
6	229	42.83	42.57	42.18	43.30	42.19	41.22	40.24	42.37
7	29	44.62	44.81	44.46	45.19	45.57	46.10	44.38	44.78
8	305	47.05	47.14	46.48	47.40	49.80	50.23	49.44	50.22
9	12	49.79	49.17	48.72	48.85	55.18	55.25	50.62	53.04
10	12	50.61	50.76	49.81	51.35	59.09	58.36	52.44	61.98
11	15	54.04	53.38	52.75	53.35	69.54	66.22	63.30	63.48
12	326	55.39	55.98	54.91	55.85	73.90	76.81	74.54	70.17
13	296	56.89	57.53	57.65	58.13	81.24	81.17	82.91	84.49
14	98	59.28	60.19	58.22	60.00	91.14	89.25	85.60	94.97
15	23	—	—	—	61.69	—	—	—	102.25
16	3	—	—	—	65.33	—	—	—	129.25

Nutrition.—The results obtained by Dr. Gurney (apart from Height and Weight) based upon her personal opinion at the time of inspection are as follows:—

	Boys.		Girls.	
	1913	1920	1913	1920
Above Average	10.5	2.4	10.2	3.4
Average ...	72.3	89.5	76.0	89.0
Below Average	16.7	8.1	13.8	7.6

Clothing and Footgear.—The condition of children in these respects shows decided evidence of parental care, the percentage of boys and girls having satisfactory clothing and footgear being 98 and 99.

Cleanliness of Children.—Every effort has been made by the Assistant Medical Officer and the School Nurses to raise the standard of cleanliness in the schools, and where the nurses are able to carry out the inspections regularly improvement has been noted. Where, however, this is interrupted by the visiting of cases of infectious disease conditions are found soon to relapse.

The number of visits to schools for the purpose of inspection of heads was 128. These are made independently of the routine medical inspections, and give a better idea of the usual condition of the children.

The number of examinations made was 14,570.

The proportion found to be free from nits and pediculi was 69.0 per cent.

The proportion found to be in a condition requiring immediate exclusion from school was 3.3 per cent.

Forty schools are visited for head inspections.

Some very dirty schools are visited monthly or six-weekly; some very clean schools are visited only six-monthly, if there is any pressure of work of more urgency such as infectious disease.

The number of cases brought before the Magistrates by the School Attendance Officer under the Byelaws, from January to December 31st, was 94.

Ringworm.—The number of cases under treatment in 1920 was 53 (including 9 cases of Ringworm of the scalp carried over from 1919).

The scalp was affected in 44 and the body in 9 instances.

Of the scalp cases 18 were treated by X-rays at Addenbrooke's Hospital, and 26 otherwise, and, with the exception of 13 cases, were cured at the end of the year.

Of the body cases 8 were cured by the end of the year.

External Eye Disease.—2.8 per cent. of the children inspected has some external disease of the eye, the conditions found being Blepharitis 25 cases, Conjunctivitis 31, Squint 37, Corneal Opacities 2, Ptosis 3, Keratitis 1, Styne 1.

Defects of Vision.—Sixty-eight boys and 78 girls, or 5.2 per cent. of all the children whose eyesight was tested, were found with more or less defective vision.

Glandular Enlargement.—Some enlargement of the glands of the neck was found in 1,031 children. In nearly half the children the enlargement was slight, and from the following figures, showing the proportion of enlarged glands in the three routine groups inspected, it apparently tends to vanish as the children grow older, partly naturally, and partly no doubt as the result of treatment.

	Boys.	Girls.	Total.
"Entrants" (5 years) ...	41%	35%	38%
"Intermediate" (8 years) ...	40%	32%	36%
"Leavers" (12 & 13 years)	20%	12%	16%

Tonsils and Adenoids.—Seventy-nine children (2.2 per cent.) had tonsils "much enlarged," 222 (6.2 per cent.) had "enlarged" tonsils, and 259 (7.3 per cent.) had "slightly enlarged" tonsils. One hundred and forty one children had adenoids. In 84 these were associated with enlarged tonsils.

Ear Disease and Defective Hearing.—Thirty-five children (1.0 per cent.) had disease of the middle ear, and 62 (1.7 per cent.) had defective hearing.

Disease of the Lungs.—Forty-one children were noted to have bronchial catarrh (27) or symptoms suggestive of pulmonary disease (14). These latter were referred to the Tuberculosis Officer for further examination.

Heart Disease.—One hundred and forty-four children presented symptoms of cardiac disease. In 26 the condition was apparently functional, and in 118 organic. The proportion among "entrants" was 4.5 per cent., in the "intermediate" group 3.0 per cent., and among the "leavers" 4.2 per cent.

Defects of Speech.—The speech was found to be defective (stammering, stuttering and lispings) in 56 children. In one instance it was caused by a cleft palate.

Other Defects.—These include:—

Anaemia	311 cases	or 8.7 per cent.
Nervous Diseases ...	27	" " 0.7 per cent.
Rickets	12	" " 0.3 per cent.
Deformities	26	" " 0.7 per cent.
Skin Diseases	33	" " 0.9 per cent.
Various other conditions	83	" " 2.3 per cent.

Vaccination.—The proportion found with vaccination marks varied from 22 per cent. among the "entrants" to 61 per cent. among "leavers." For 1919 the proportion of "entrants" vaccinated was 37 and of "leavers" 70 per cent.

Infectious Diseases.—Out of a total 57 cases of Scarlet Fever notified, 26 were elementary school children, and of 107 cases of diphtheria notified 67 were elementary school children.

The numbers notified by Head Teachers were as follows :—

	1916	1917	1918	1919	1920
Influenza ...	—	—	296	113	33
Measles ...	25	160	225	463	538
Measles Contacts	—	—	—	59	159
German Measles	4	2	16	5	1
Whooping Cough	427	20	614	38	75
Chicken Pox ...	172	156	108	175	181
Mumps ...	310	31	13	37	88
Ringworm ...	85	35	32	41	39
Scabies ...	24	17	3	4	1
Skin Diseases ...	47	18	10	29	43
Others ...	275	309	488	463	278
Totals ...	1369	748	1805	1427	1436

The number of visits of enquiry paid by the School Nurses to homes was 1,889, the number in 1919 being 1,703; in 1918, 1,845; in 1917, 1,431; and in 1916, 3,087. The causes of absence were :—Measles 445, Whooping Cough 47, Chicken Pox 187, Influenza 7, Ringworm 76, Mumps 96, Impetigo 17, defects revealed by previous medical inspection 652, Post Scarlatinal and Post Diphtheria Cases 355, and all other conditions (colds, sore throats, etc.) 362.

Thirty-two visits were paid to schools in connection with Diphtheria cases. The total swabs taken in schools was 1,116, of which 28, or 2·5 per cent. gave positive results.

School Closure.—It was necessary to recommend the closure of the following schools on account of Chicken Pox :—Morley Memorial Infants' and Union Road R.C.; and St. Paul's Infants' on account of Mumps.

Treatment at Addenbrooke's Hospital.—The number of hospital recommendations given was 167, as compared with 146 in 1919, 138 in 1918, 109 in 1917, and 124, in 1916. The conditions for which treatment was required were :—Ringworm 8, Diseases of the Eyes 15, Diseases of the Ears 30, Tonsils and Adenoids 48, Scabies 3, other Skin Diseases 8, Minor Injuries 10, Miscellaneous 45.

Inspection and Treatment Clinic.—The number of children in attendance was 1,596, the total number of visits paid to the clinic being 6,251. The number requiring treatment was 677, the conditions being :—Impetigo 110, Scabies 15, Ringworm 31, other Skin Diseases 55, Eye Defects 252, Ear Diseases 33, Minor Injuries 31, Others 150.

Summary of School Nurses' work :—

	1916	1917	1918	1919	1920
Visits to Homes ...	3,087	1,431	1,845	1,703	1,889
„ „ Schools ...	269	304	139	234	335
Examinations as to cleanliness ...	24,224	28,132	15,178	14,413	14,570
Total attendances for treatment	1,397	1,040	1,204	2,966	4,934
Minor ailments treated at Clinic...	258	249	365	738	677
Total attendances for inspection	285	320	134	172	919

Treatment at the Eye Clinic.—The number of children examined at the Clinic was 263. 248 had spectacles prescribed for them, and 224 of these have obtained them.

Following-Up.—The arrangements made for following-up children found suffering from defects are those described in the annual reports for 1914 and 1915.

Delicate or Physically Defective Children.—The temporary open-air school for delicate children which was opened in July, 1916, was open during the whole year.

The number present when the school began work on January 12th was 26. This had increased to 33 by January 30th.

The number at the end of 1920 was 37.

Thirty-four children were admitted and 23 left during the year.

Of the 23 who left, 16 were fit to return to the ordinary schools, 3 returned to their ordinary school, as their parents refused dental treatment for their children, 3 had reached 14 years of age, and 1 went to a sanatorium.

There were 11 children awaiting admission to this school at the end of 1920.

One hundred and seventy-two children received cod liver oil and malt in school during the year. These were recommended after examination by your Assistant Medical Officer or by the Tuberculosis Officer, chiefly on the ground of anaemia, malnutrition and enlarged glands. These children are kept under continuous observation, and are weighed at the clinic once a month. Those who fail to gain, or who develop symptoms suggesting the need for examination by a specialist, are referred to the Tuberculosis Officer.

One hundred and thirty-seven Reports upon 104 children were received from the Tuberculosis Officer, with recommendations to admit 39 children to the open-air school, to exclude 67 from school for periods of three to six months, and for others to return to their ordinary school.

Blind, Deaf, Mentally Defective and Epileptic Children.—The number of children maintained in Institutions by the Education Committee is:—Blind (3), 1 girl at the Leeds Institution for the Blind, and a boy and girl at Birmingham Royal Institution for the Blind.

Deaf (6), 1 boy at the East Anglian Institution for Blind and Deaf, Gorleston, and 4 boys and 1 girl at the Royal Institution for Blind and Deaf, Margate.

Feeble-minded (5), 1 boy at Littleton House School, Girton; 1 boy at Bessford Court School, Worcestershire, and 2 girls and 1 boy at the Royal Eastern Counties' Institution, Colchester.

Thirty children were specially examined for mental defect, and 17 were certified and reported to the School Hygiene Committee.

Six children were reported to the Local Control Authority, 4 as idiots and 2 as imbeciles.

Hope Class for Backward Children.—The number on the books on January 1st, 1920, was 34, and on December 31st, 1920, 44. Eighteen were admitted and 8 left during the year. The causes of leaving were:—Having reached 14 years of age, 2; sent to a residential school, 1; sent to a sanatorium, 1; returned to ordinary school, 1; left Cambridge, 3.

Voluntary Association for the Care of the Mentally Defective.—A considerable amount of assistance has been given by this Association in the following directions:—

1. Supervision of mentally defective children leaving school at the age of fourteen (6 cases).
2. Supervision of the home conditions of children attending the Hope Class (44 cases).
3. Investigation into home conditions of children of doubtful mental defect, at present attending ordinary elementary schools.
4. Sending periodical reports to the School Hygiene Committee upon the cases referred to under 1, 2, and 3.
5. Organising and conducting "Wolf Cubs" and "Brownies" for children attending the Hope Class.

CO-OPERATION OF VOLUNTARY BODIES.

Children's Care Committee.—This Committee meets weekly and deals with cases of school children referred to it for special enquiry into home circumstances and family resources. Children recommended for the Open-Air School, children attending the Hope Class for the backward and in need of additional nourishment, children in need of change of air, and cases of apparent inability to pay the full cost of spectacles are all referred for enquiry and assessment, and reported upon to the School Hygiene Committee.

The numbers so reported upon in 1920 were:—Spectacle cases 33, free dinners 15, free milk 17, change of air 3, open-air school 52, a total of 120.

Invalid Children's Aid Association.—Part of the work of this Association is the arranging for seaside or country holidays for children in need of a change of air, and it has been the practice for some years now for the School Medical Officer or his assistant to examine these children and fill up the necessary medical certificates.

National Society for the Prevention of Cruelty to Children.—The number of cases actually referred to the Inspector is small (9), but his assistance with neglected cases has been of the greatest value.

Physical Training.—There is no organiser of physical training, the work being undertaken in the schools by the school staffs. It is conducted in accordance with the Board of Education Syllabus, 1919. A games and physical training master is attached to the staff of the boys' department at the Central School.

A course of physical training for women teachers was organised by the County Education Committee at the commencement of the current year (1921), and 50 Borough teachers attended the course.

Employment of School Children.—The draft Byelaws for regulation of the employment of children have been under revision during the year, but have not yet been approved by the Home Secretary.

As drafted they entirely prohibit employment of children under 12 years of age, whilst children between 12 and 14 can only be employed (a) on school days between 5 p.m. and 7 p.m., (b) on week-days when school is not open for not more than four hours between 8 a.m. and 7 p.m., with no employment for a continuous period of five hours between noon and 7 p.m., and (c) on Sundays between 7.30 a.m. and 8.30 a.m. only in delivering milk.

The employment is subject to conditions laid down in the Byelaws, one of which is that a child shall not be employed unless within thirty days after the Byelaws come into operation, or in the case of a child not employed until after that date, unless within fourteen days from the date of beginning work, the child has obtained from the School Medical Officer a certificate that such employment will not be prejudicial to his health or physical development, and not make him unfit to profit from his education, and the certificate has been produced to and endorsed by the employer.

The employer is made responsible for the protection of the child from inclement weather by seeing that he has good footwear and a waterproof garment.

TABLE I.—Number of children inspected 1st January to 31st December, 1920.

Entrants.									
Age	...	...	...	3	4	5	6	Other Ages.	Total.
Boys	...	...	...	59	122	246	231	25	683
Girls	...	...	...	55	118	248	229	29	679
Total	...	...	...	114	240	494	460	54	1362

Age	...	Inter- mediate. 8	Leavers.			Other Ages.	Total.	Grand Total.
			12	13	14			
Boys	...	359	319	284	88	41	1091	1774
Girls	...	305	326	296	98	65	1090	1769
Total	...	664	645	580	186	106	2181	3543

B. Special Inspections.

	Special Cases.	Re-examinations (No. of Children re-examined).
Boys ...	73	382
Girls ...	83	317
Total	156	699

C. Total number of individual children inspected by the Medical Officer as Routine or Special Cases. (No child being counted more than once in a year).

No. of Individual Children inspected ... 3699

TABLE II.—Return of Defects found in the course of medical inspection in 1920.

Defect or Disease.	Routine Inspections.		Specials.	
	Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
Malnutrition	—	10	—	—
Uncleanliness :				
Head (Nurse inspections) ...	—	1	3512	—
Body	—	—	—	—
Ringworm :				
Head	—	—	34	—
Body	—	—	10	—
Scabies	—	—	—	—
Impetigo	—	—	—	—
Other Diseases (not tubercular)	—	—	—	—
Blepharitis	—	—	—	—
Conjunctivitis	2	—	—	—
Keratitis	—	—	—	—
Corneal Ulcer	—	—	—	—
Corneal Opacities	—	—	—	—
Defective Vision... ..	124	22	32	2
Squint	1	1	3	—
Other conditions... ..	2	—	—	—

Defect or Disease.					Routine Inspections.		Specials.	
					Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment.
Ear	{	Defective Hearing	34	8	9	—		
		Otitis Media	—	—	—	—		
		Other Ear Disease	16	4	6	1		
Nose and Throat	{	Enlarged Tonsils	22	99	—	2		
		Adenoids	51	15	6	3		
		Enlarged Tonsils and Adenoids... ..	16	10	—	1		
Teeth	{	Other Conditions	10	3	—	1		
		Defective Speech	—	—	—	—		
Heart and Circulation	{	Dental Disease (see Dental Report)	—	—	—	—		
		Heart Disease :						
		Organic... ..	2	5	—	1		
Lungs	{	Functional	—	—	—	—		
		Anaemia	76	12	4	1		
		Bronchitis	—	—	—	—		
Tuber- culosis	{	Other Non-Tubercular Diseases	1	8	—	3		
		Pulmonary :						
		Definite	1	—	—	1		
		Suspected	—	3	—	2		
		Non-Pulmonary	—	1	—	—		
		Glands	—	—	—	—		
		Spine	—	—	—	—		
		Hip	—	—	—	—		
		Other Bones and Joints	—	—	—	—		
		Skin	—	—	—	—		
Nervous System	{	Other Forms	—	—	—	—		
		Epilepsy	—	—	—	—		
		Chorea	6	—	2	—		
Deform- ities	{	Other Conditions	14	1	1	1		
		Rickets	—	—	—	—		
		Spinal Curvature	2	1	—	—		
		Other Forms	—	2	—	—		
Other Defects or Diseases					35	34	4	5
Number of Individual Children having defects which required Treatment or to be kept under observation					361	244	59	23

TABLE III. Numerical returns of all Exceptional Children in the Area in 1920 (as obtained from Head Teachers).

			Boys.	Girls.	Total.
Blind (including partially blind), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools ...	3	4	7
		Attending Certified Schools for the Blind	—	—	—
		Not at School ...	—	—	—
Deaf and Dumb (including partially deaf), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools ...	5	2	7
		Attending Certified Schools for the Deaf	1	—	1
		Not at School ...	1	1	2
Mentally Deficient	Feeble-minded	Attending Public Elementary Schools ...	8	9	17
		Attending Certified Schools for Mentally Defective Children ...	13	6	19
		Notified to the Local Control Authority by Local Education Authority during the Year ...	5	1	6
		Not at School ...	—	—	—
	Imbeciles	At School ...	—	—	—
		Not at School ...	2	—	2
	Idiots	—	1	—	
Epileptics		Attending Public Elementary Schools ...	8	3	11
		Attending Certified Schools for Epileptics	—	—	—
		In Institutions, other than Certified Schools	—	1	1
		Not at School ...	—	—	—

			Boys.	Girls.	Total.
Physically Defective	Pulmonary Tuberculosis	Attending Public Elementary Schools ...	30	9	39
		Attending Certified Schools for Physically Defective Children ...	—	—	—
		In Institutions other than Certified Schools	4	3	7
		Not at School ...	12	15	27
	Crippling due to Tuberculosis	Attending Public Elementary Schools ...	3	4	7
		Attending Certified Schools for Physically Defective Children ...	1	—	1
		In Institutions other than Certified Schools	—	2	2
		Not at School ...	2	1	3
	Crippling due to causes other than Tuberculosis, <i>i.e.</i> , Paralysis, Rickets, Traumatism.	Attending Public Elementary Schools ...	9	14	23
		Attending Certified Schools for Physically Defective Children ...	—	—	—
		In Institutions other than Certified Schools	1	2	3
		Not at School ...	—	—	—
Other Physical Defectives, <i>e.g.</i> , delicate and other Children suitable for admission to Open-Air Schools; Children suffering from severe Heart Disease.	Attending Public Elementary Schools ...	34	44	78	
	Attending Open-Air Schools ...	18	21	39	
	Attending Certified Schools for Physically Defective Children other than Open-Air Schools ...	—	2	2	
	Not at School ...	1	5	6	
Dull or Backward.	Retarded 2 years ...	108	87	195	
	Retarded 3 years ...	7	10	17	

TABLE IV. Treatment of Defects of Children during 1920.
A. Treatment of Minor Ailments.

Disease or Defect.	Number of Children.			Total.
	Referred for treatment	Treated.		
		Under Local Education Authority's Scheme.	Otherwise.	
<i>Skin</i>	—	—	—	—
Ringworm—Head	35	10	12	22
" Body	9	2	6	8
Scabies	16	15	1	16
Impetigo	130	110	20	130
Minor Injuries	50	31	19	50
Other Skin Disease	85	55	30	85
<i>Ear Disease</i>	63	63	—	63
<i>Eye Disease</i> (external and other) ...	252	252	—	252
<i>Miscellaneous</i>	278	150	128	278

B. Treatment of Visual Defects.

Number of Children.									
Referred for Refraction.	Under Local Education Authority's Scheme—Clinic.	By Private Practitioner or Hospital.	Otherwise.	Total.	For whom glasses were prescribed.	For whom glasses were provided.	Recommended for treatment other than by glasses.	Received other form of treatment.	For whom no treatment was considered necessary
263	255	5	3	263	248	224	1	1	14

C. Treatment of Defects of Nose and Throat.

Referred for Treatment.	Number of Children.				Received other forms of Treatment.
	Received Operative Treatment.			Total.	
	Under Local Education Authority's Scheme Clinic or Hospital.	By Private Practitioner or Hospital.	Total.		
95	58	1	59	7	

D. Treatment of Dental Defects.

I—Number of Children dealt with.

	Age Groups.										Specials.	Total.
	5	6	7	8	9	10	11	12	13	14		
a. Inspected by Dentist ...	393	531	463	549	536	580	468	443	467	169	510	5109
b. Referred for Treatment ...											510	3665
c. Actually Treated...											510	3147
d. Re-Treated* (Result of Periodical Re-Examination)											—	1205

* It is understood that cases under this head are also included under (c) above.

In this table the 510 Special cases are children, of different ages, who were examined twice on account of removal from one school to another in the area which was subsequently inspected. "Treatment" in this table is understood to include all conditions, fillings, extractions and dressings.

2.—Particulars of the Time Given and of Operations Undertaken.

No. of Half Days devoted to Inspection.	No. of Half Days devoted to Treatment.	Total No. of Attendances made by Children at the Clinic.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total No. of Fillings.	No. of Administrations of General Anaesthetics in (4) and (6).	No. of Other Operations.	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth.	Temporary Teeth.
1	2	3	4	5	6	7	8	9	10	11
79	426	2335	77	2438	2800	14	2684	0	19	1165

TABLE V. Summary of treatment of defects as shown in Table IV. (A, B, C, D and F, but excluding E.)

	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authorities Scheme.	Otherwise.	Total.
Minor Ailments ...	918	688	208	896
Visual Defects ...	263	248	1	249
Defects of Nose and Throat ...	95	58	8	66
Dental Defects ...	3665	3147	—	3147
Other Defects ...	361	294	—	294
Total ...	5302	4435	217	4652

TABLE VI.—Summary relating to children medically inspected at the routine inspections during the year 1920.

(1)	The total number of children medically inspected at routine inspections*	3543
(2)	The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment)	250
(3)	The number of children in (1) suffering from :	
	Malnutrition (below average)	275
	Skin Diseases	33
	Defective Vision (including Squint)... ..	177
	Eye Disease	63
	Defective Hearing	62
	Ear Disease	38
	Nose and Throat Diseases	449
	Enlarged Cervical Glands	554
	Defective Speech	58
	Dental Disease (see Dental Report)	—
	Heart Disease—	
	Organic	118
	Functional	26
	Anaemia	311
	Lung Disease (non tubercular)	41
	Pulmonary { definite	—
	{ suspected	2
	Non Pulmonary	2
	Disease of Nervous System	27
	Deformities	26
	Other Defects and Diseases	95
(4)	The number of children in (1) which were referred for treatment (excluding uncleanliness, defective clothing, &c.) ...	361
(5)	The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, &c.)	294

* Specials are not included in this Table.

DENTAL REPORT.

INDEX AND SYNOPSIS.

	PAGE
TITLE PAGE	56
ADDRESS TO THE CAMBRIDGE EDUCATION COMMITTEE ...	57
1. SCOPE OF THE SCHEME	58
2. SUMMARY OF WORK DONE	58
Number of Children examined and treated	58
Number of Operations performed	59
3. SUMMARY OF ALL EXAMINATIONS	61
Definitions of the terms " Saveable " and " Unsaveable " ...	62
103,344 Teeth comprised in the examination	62
Distribution of the decayed teeth	63
83.5 per cent. of Children with sound permanent teeth ...	65
4. SUMMARY OF EXAMINATION OF NEW PATIENTS	66
5. SUMMARY OF RE-EXAMINATIONS	69
Children whose permanent teeth had required no treatment previously	69
Children whose permanent teeth had been treated and made artificially sound previously	70
Children who had refused treatment previously	72
6. SUMMARY OF HYGIENE OF THE MOUTH	73
Method of classification and percentages	74
The condition of the teeth after treatment in the year 1920	74
Treatment of children under school age	74
Effect of the war on the teeth of the 5 year old groups in each year	75
Diagram	76
7. SUPPLEMENT TO THE REPORT FOR THE YEARS 1917 AND 1918	78
8. VALEDICTORY	94

REPORT

ON

Dental Inspection and
Treatment of School Children

For the Year 1920.

BY

WILLIAM H. JONES, M.A., L.D.S.,

BOROUGH DENTIST.

THE DENTAL INSTITUTE,
34, PARK SIDE,
CAMBRIDGE.
November 30th, 1920.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have the honour to submit the Thirteenth Report of the working of the Dental Institute, covering the period from January 1st, 1920, to the date of my retirement from office.

The Assistant Dentist, Mr. L. Machin, L.D.S. (Eng.), resigned his appointment in May, having been selected as Chief Dental Officer for the City of Gloucester. Mr. Machin possessed in a high degree the personal qualities necessary to make a successful school dentist, and his promotion is certainly a loss to Cambridge.

From May to date the scheme has been conducted solely by myself, and it is satisfactory to record that at the moment of writing the arrears of inspection and treatment are equal to only one month's departure from the normal annual visitation.

I beg to acknowledge assistance in the collection of the statistical data, on which this Report is based, from Miss E. Munsey and also from Miss A. Bennett.

I have appended to the usual information certain Tables omitted from the Reports for the years 1917 and 1918.

A review of some salient points from previous Reports is also added.

This is the Tenth Annual Report I have penned since my appointment, and on the eve of departing to take up duties elsewhere I desire to express my thanks for the courtesy I have always encountered at your hands, and for the kindness with which you have always allowed me to express in these Reports whatever views impressed themselves upon me as arising from the Treatment of the Teeth of the Cambridge children.

I also desire to place on record my deep sense of indebtedness to Dr. Laird, the School Medical Officer, for his unfailing confidence, and to Mr. A. W. Gant, my predecessor, for assistance and information on many occasions.

I am, Ladies and Gentlemen,

Your obedient Servant,

WILLIAM H. JONES.

Report on the Dental Inspection & Treatment of School Children

FOR THE YEAR 1920.

I.—SCOPE OF THE SCHEME.

The Thirteenth Report on the working of the Dental Institute covers the year 1920, and relates to eleven months' actual treatment, as owing to change of Dental Officers no inspections were possible during December. At the end of the year the age limit of treatment had extended upwards so as to embrace all the children of all ages attending both the Elementary and Higher Grade Schools. In consequence all the children in the Borough will, in future, be on an equality with regard to facilities for dental treatment.

Owing to shortage of staff the routine round of inspections has reached a point equal to a month's delay beyond the point of Annual Inspection. This is to be regretted, and attention may again be called to the fact that a year is the maximum interval that should elapse between the rounds of visits to the schools. The aim of the scheme is to prevent destruction of the teeth by dental disease, and this can be achieved more certainly the earlier the defect is observed and corrected.

II.—SUMMARY OF WORK DONE.

A.—Table showing the number of children examined and the number of children treated during the year 1920:—

Month.	No. of Children Examined	Number of Children Treated for:—			No. of Children Refusing Further Treatment
		Fillings only.	Fillings and Extractions	Extractions only.	
January ...	321	140	16	50	—
February ...	518	68	64	122	—
March ...	555	106	90	171	—
April ...	612	81	42	68	—
May ...	590	106	171	109	2
June ...	426	83	63	193	—
July ...	360	43	49	111	—
August*	—	—	—	—	—
September ...	600	88	44	99	—
October ...	231	72	31	142	2
November ...	353	49	62	104	1
December**	—	—	—	—	—
Total ...	4566	836	632	1169	5

* Clinic closed for vacation.

** Clinic closed through change of Dental Officer.

It will be seen that during the year 1920 the number of children comprised in the routine examinations was 4,566. This total is 2,381 less than in the year 1919, and includes 83 children who were examined twice on account of removal from one school to another school in the area, which was subsequently examined.

The total number of children treated during the year 1920 was 2,637, being a proportion of 57.7 per cent. of the children examined.

The number of children attending the Institute for fillings during the year 1920 was 1,468, of whom only 5 refused to attend a second time when required, and consequently did not have all the work necessary completed. Thus, the permanent teeth of 1,463 children were made "artificially sound."

The number of appointments offered to children requiring fillings was 1,903, of which 264 were not accepted, a proportion of 13.8 per cent.

The number of appointments offered for extraction was 1,423, of which 254 were not accepted, a proportion of 17.8 per cent.

Some 17 children attended the Institute who required Temporary Teeth treating with nitrate of silver to arrest the decay, and who had neither fillings nor extractions.

The necessity for a centrally situated Institute is emphasised by the fact that 510 children sought advice, without appointment, during the year. It may be stated that children, in pain, may be sent to the Institute, during school hours, without an appointment.

The number of children who attended for fillings on more than one occasion was 171.

B.—Table showing the number of Operations Performed during the year 1920.

Month.	FILLINGS.			EXTRACTIONS.		Teeth Treated with Nitrate of Silver
	Amalgam.	Amalgam. and Cement.	Amalgam. with Root Canal treatment.	Temporary Teeth.	Permanent Teeth.	
January ...	137	171	3	77	12	22
February ...	166	166	4	268	13	84
March ...	235	130	10	467	9	293
April ...	150	74	1	184	6	86
May ...	258	225	4	376	5	79
June ...	119	119	8	379	5	161
July ...	83	89	—	257	5	66
August ...	—	—	—	—	—	—
September	94	84	2	233	6	150
October ...	67	92	4	268	11	79
November	81	89	1	291	5	145
December ...	—	—	—	—	—	—
Total ...	1390	1239	37	2800	77	1165

In addition to the operations tabulated, 18 teeth were filled with cement only ; in 4 cases the teeth were scaled ; in 24 cases dressings were applied to the gums ; in 12 cases the gums were lanced to assist the emergence of permanent teeth and relieve the tension ; in 14 cases dressings of copper oxy-phosphate were placed in temporary teeth ; and in 2 cases the sharp broken edges of front (or incisor) teeth, injured as a result of a fall, were trimmed into a slightly condition ; 1 tooth was " crowned."

In short 2,684 fillings, 2,877 extractions, and 1,222 sundries were completed, making a total of 6,783 operations performed during the year 1920.

The average number of fillings inserted for each child treated was 1.8, as compared with 1.8 in the year 1919. The exact number of teeth filled was 2,438, and this number is less than the number of fillings, chiefly, because many upper molars required two fillings, one in each crown fissure, to make them sound. Of the fillings 1,390 were amalgam alone, but in 1,239 cavities the decay had penetrated so deeply that a lining of non-conducting material (cement) had to be inserted under the metal filling. On account of greater sensibility, 18 cavities had to be filled entirely with cement, and 37 required root canal treatment in addition to the filling. The above variations indicate the progressive severity of the nature of the filling operations required. The less simple fillings numbered 1,294, a decrease of 679 as compared with the year 1919.

No temporary teeth were filled during the year 1920, but 14 had dressings of copper cement applied, and 1,165 were treated with applications of silver nitrate for the purpose of arresting the decay or relieving toothache.

Of the temporary teeth also 2,800 were extracted. These teeth either had the points of their roots exposed or were exciting the formation of septic matter. The former condition is serious in that the sharp edge of the root, by constant irritation of the cheek or tongue, is certain to lead to an ulcerative process, which results in a scar, with the formation of a dangerous and unhealthy pocket. The latter condition leads to a discharge of septic fluid or pus into the mouth which is continuously and unconsciously swallowed by the child, with adverse results to its general well-being. Further, the timely removal of these septic fragments tends to preserve the crowns of the permanent teeth which may be emerging underneath, and leads to a more regular arrangement of the permanent dentition.

If we add to the 1,169 children attending for " extractions only," the 632 children attending for " fillings and extractions," we obtain a total of 1,801 children who attended for extractions. The average number of temporary teeth extracted for each of these children was 1.5. Parents may rest assured that in every case where temporary teeth are extracted, these are actually harmful and producing unhealthy and dangerous conditions, and not likely to be speedily cast off by the ordinary processes of nature.

During the year under review 77 permanent teeth were extracted, 36 for purposes of regulating the teeth in cases of overcrowding, and 41 to relieve pain when other remedial measures were impossible. In

addition the examination revealed the fact that 7 children had 9 permanent teeth extracted elsewhere.

During the year also 2 certificates were granted to "leavers" seeking situations in which a good condition of the teeth was considered essential.

III.—SUMMARY OF ALL EXAMINATIONS.

C.—Table showing the results of an examination of the Teeth of 4,599 Elementary School Children.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable	Decayed Un-saveable	Sound.	Decayed Saveable	Decayed Un-saveable
5 Years	393	5903	1455	291	82	2	—
6 "	531	6163	2404	684	1864	177	3
7 "	463	3567	2039	631	3273	377	7
8 "	549	3288	1979	731	5233	409	21
9 "	536	2274	1352	615	6352	412	60
10 "	580	1664	938	463	8957	464	79
11 "	468	870	455	262	9037	414	110
12 "	443	396	184	94	9778	494	168
13 "	467	137	67	74	11210	704	186
14 "	169	24	15	9	4106	269	68
Total	4599	24286	10888	3854	59892	3722	702

D.—Table calculated from Table C giving the average results for 100 Children in Each Year of Age.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable	Decayed Un-saveable	Sound.	Decayed Saveable	Decayed Un-saveable
5 Years	100	1502	370	74	21	.6	—
6 "	100	1160	452	129	351	33	.6
7 "	100	770	440	136	707	81	1.5
8 "	100	598	360	133	953	74	4
9 "	100	424	252	114	1185	77	11
10 "	100	287	161	79	1544	80	13
11 "	100	185	97	56	1931	88	23
12 "	100	89	31	21	2207	111	37
13 "	100	29	14	15	2400	150	40
14 "	100	14	9	5	2427	159	40

The actual number of children examined during the year 1920, including non-routine cases, was 4,599. In addition 83 children had the benefit of being examined twice. These children owed their second examination to removal from one school to another in the area.

The temporary teeth decayed are arranged in two divisions, those which needed extraction (unsaveable), and those which, although decayed, were better left in position for the time being (saveable) to assist in mastication.

Although the same terms are applied to the permanent teeth decayed, they are divided into those which could be filled and so made artificially sound (saveable), and those in which the decay had progressed too far for this to be attempted (unsaveable).

Table C shows the result of the examination of the teeth of the children, whilst Table D shows the figures in the preceding table expressed in the ratio of 100 children of each age, to enable comparison with the figures given with the reports for previous years.

It may be perceived that the examination comprehended 103,344 teeth. Of 39,028 temporary teeth 62.2 per cent. were sound. This is an increase of 1.8 per cent. over the corresponding proportion for the year 1919, and demonstrates a further improved condition in the temporary dentition. The percentage of decayed saveable temporary teeth has diminished from 29.4 in the year 1919 to 27.9 in the year 1920. The proportion of unsaveable temporary teeth has also decreased from 9.9 in the year 1919 to 9.8 per cent. in the year 1920. Too much importance cannot be attached to the steady improvement of the temporary dentition, as on the maintenance of function by this dentition the future of the successional teeth is largely dependent.

With regard to the permanent dentition, all teeth filled in previous years, which showed no signs of subsequent decay, have been counted as sound. Consequently, of 64,316 permanent teeth, no less than 59,892 were sound (93.1 per cent.). As during the year 2,438 permanent teeth were made sound, it will be seen that the number of decayed saveable permanent teeth left untreated was reduced to 1,284, of which 678 occurred in mouths with unsaveable permanent teeth. The number of permanent teeth, therefore, which parents declined to have filled was 606 (.9 per cent.), which occurred in the mouths of 300 children. Apart from treatment during the year, comparison with the Report for the year 1919 shows that there is an increase of .7 per cent. in the sound permanent teeth.

It will be noticed from Table C that, in the year 1920, the examinations discovered a total of 702 unsaveable permanent teeth. These occurred in the mouths of 402 children, and the number of unsaveable permanent teeth possessed by each of these children is here shown.

*I.—Table showing the Distribution of Unsaveable Permanent Teeth.

Year.	Number of Children grouped with the Number of Unsaveable Permanent Teeth in each Mouth.						Total Number of Children with Unsaveable Permanent Teeth.	Total Number of Unsaveable Permanent Teeth.
	I.	II.	III.	IV.	V.	VI.		
1920	201	131	50	13	5	2	402	702

* Tables indicated alphabetically may be compared with similar Tables in Previous Reports. Tables indicated numerically are usually peculiar to this Report.

E.—Table showing the Number of Children Examined, and the Number and Percentage having no Decay present, as also the Number and Age of Children without Permanent Teeth emerged, and the Number and Age of Children who had lost all their Temporary Teeth.

Age.	Number of Children Examined.	No Decay including Both Dentitions.		Number of Children without Permanent Teeth	Number of Children without Temporary Teeth
		Number of Children.	Percentage		
5 Years	393	100	25.4	343	—
6 "	531	70	13.1	117	—
7 "	463	27	6.0	5	—
8 "	549	25	4.5	—	—
9 "	536	42	7.8	—	4
10 "	580	56	9.6	—	44
11 "	468	104	22.2	—	81
12 "	443	124	28.0	—	237
13 "	467	126	26.9	—	315
14 "	169	49	29.0	—	133
Total	4599	723	15.7	465	814

II.—Table showing the Age and Number of Children Inspected, and the Number and Percentage having no Decay, one or two, three or four, five or six, seven or more Decayed Teeth present, both Dentitions combined, before Treatment in the year 1920.

Age.	Number of Children Examined.	Number and Percentage of Children who each had before Treatment :—									
		None Decayed.	%	One or Two Decayed	%	Three or Four Decayed.	%	Five or Six Decayed.	%	Seven or More Decayed.	%
5 Years	393	100	25.4	75	19.1	58	14.7	56	14.2	104	26.4
6 "	531	70	13.1	61	11.5	86	16.2	84	15.8	230	43.3
7 "	463	27	6.0	43	9.2	81	17.5	95	20.5	217	46.8
8 "	549	25	4.5	75	13.6	110	20.0	142	25.8	197	35.8
9 "	536	42	7.8	123	22.9	133	24.8	116	21.6	122	22.7
10 "	580	56	9.6	199	34.3	162	27.9	90	15.5	73	12.6
11 "	468	104	22.2	159	33.9	132	28.2	44	9.4	29	6.2
12 "	443	124	28.0	179	40.4	91	20.5	30	6.8	19	4.0
13 "	467	126	26.9	175	37.4	91	19.2	48	10.3	27	5.7
14 "	169	49	29.0	65	38.4	29	17.1	13	7.7	13	7.7
Total	4599	723	15.7	1154	25.1	973	21.1	718	15.7	1031	22.4

Table E shows that on examination and before treatment 723 children were found with sound teeth (both dentitions) and mouths entirely free from decay. In addition 90 children possessed no decayed temporary teeth who had decayed permanent teeth, and 1,395 children possessed no decayed permanent teeth who had decayed temporary teeth. In many of the latter cases the permanent teeth had been made sound in previous years and needed no further treatment when re-examined. With regard to the 723 children in Table E, this applies only to a proportion, as the majority of these children had naturally sound permanent teeth. In the younger groups the absence of permanent teeth and in the elder groups the absence of temporary teeth influences the percentages, and the number of children minus one or other dentition is included in the table.

Table II. shows how the decayed teeth found were distributed, and it will be noticed that 46.2 per cent. of the children have four or less teeth decayed. If to this percentage we add the 15.7 per cent. of children entirely free from decay we find that 30.1 per cent. of all the children examined have more than four decayed teeth apiece, as compared with 42.4 per cent. in the year 1919, a further satisfactory decrease of 4.3 per cent. All these figures apply to both dentitions combined and refer to the conditions before treatment in the year 1920. Reference to Table D will show that the temporary teeth were responsible for the large percentage of children found with more than four decayed teeth. The percentage of children in the worst class (seven or more decayed teeth apiece) has decreased in comparison with the year 1919 no less than 3.7 per cent.

F.—Table showing the number and age of children with permanent teeth, and the number and percentage having sound permanent teeth, artificially sound permanent teeth after treatment, during the year 1920, one or more unsaveable permanent teeth, and one or more decayed but saveable permanent teeth, which were not treated.

Age.	Number of Children with Permanent Teeth	Number of Children whose Permanent Teeth were						Number of Children who had Decayed Saveable Permanent Teeth and who refused treatment.	
		Sound.		Made Artificially Sound.		Unsaveable.			
			%		%		%		%
5 Years	50	49	98.0	1	2.0	—	—	—	—
6 "	414	307	74.1	85	20.5	1	.2	21	5.0
7 "	458	251	54.8	169	36.9	4	.9	34	7.4
8 "	549	316	57.5	182	33.3	13	2.3	38	6.9
9 "	536	301	56.1	169	31.5	34	6.3	32	6.0
10 "	580	286	49.3	189	32.5	51	8.8	54	9.3
11 "	468	229	48.9	135	28.8	64	13.7	40	8.5
12 "	443	183	41.3	140	31.6	90	20.3	30	6.7
13 "	467	146	31.2	189	40.4	94	20.1	38	8.1
14 "	169	50	29.6	77	45.5	30	17.7	12	7.1
Total	4134	2118	51.2	1336	32.3	381	9.2	299	7.2

Table F shows that of the children examined who had permanent teeth 51.2 per cent. (including children made artificially sound in previous years, and whose teeth did not require any further treatment in the year 1920) had sound permanent teeth. A further 32.3 per cent. as a result of treatment were made sound during the year. Thus, after treatment, 83.5 per cent. of the children examined with permanent teeth were left with that dentition free from decay and unbroken by loss. This percentage is an increase of 2.6 as compared with the year 1919, and represents 3,454 children.

The proportion of children with unsaveable permanent teeth has increased one per cent., and the percentage of refusals has decreased 3.5 as compared with the year 1919. This gradual diminution of refusals is a satisfactory feature. Of the refusals it may be stated that in addition to all the children prevented from attending through parents' dissent, they also include children who did not attend for treatment, through

sickness or absence from school, and all intractable children. The percentage of refusals (7.2) is probably, therefore, within the minimum to be reasonably attained in a voluntary system. It may, however, again be emphasised that if there were no refusals, and if the annual inspections could be sustained, there would be no children in the Borough with unsaveable permanent teeth. Parents incur a grave responsibility when they refuse to allow the dental defects of their children to be remedied. In general it may be stated that the refusals now encountered are those repeated from year to year, and often affect several children in the same household. It frequently happens now that parents who have refused in previous years bring their children for treatment when the permanent teeth of their children have become unsaveable and are tender and aching. It is to be hoped that the object lesson will benefit the younger children of these parents, and that they will perceive that toothache is not a necessary evil, and that unsightly teeth are a sign of parental ignorance and neglect. Parents newly resident in Cambridge are also apt to refuse, having had no experience of systematised school dentistry in their previous place of residence. This may be attributed to a lack of confidence, but if such parents would enquire of their neighbours concerning the work of the Institute, it is probable that such prejudice as they may possess through want of knowledge would be dissipated with the happiest results to the general health and well-being of newly admitted scholars. The gradual elimination of refusals is a sign of the increasing appreciation of the value of good teeth, and of the educational value of the propaganda of the past in respect of the Institute. It is a tribute to an enlightened Press, to the common-sense of the people, and to the painstaking and ungrudging efforts of the teachers to exert their great influence on behalf of the welfare of their pupils.

In Table I. the number of children with unsaveable permanent teeth is shown to be 402. In Table F, after treatment, this number has been diminished, through extractions, to 381.

IV.—SUMMARY OF EXAMINATION OF NEW PATIENTS.

The number of new patients examined for the first time in the year 1920 was 839.

V.—Table showing the Number, Age and Sex of the Children Examined for the first time in the year 1920, and the Number of Sound, Decayed Saveable and Decayed Unsaveable Teeth of each Dentition that they possessed.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed. Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	192	2828	715	154	30	2	—
6 "	84	1035	383	123	284	35	—
7 "	24	214	102	33	169	17	—
8 "	24	141	89	54	215	18	2
9 "	22	126	55	32	255	24	—
10 "	17	78	32	14	244	10	3
11 "	11	32	11	5	191	10	10
12 "	8	7	6	4	168	12	5
13 "	19	10	4	11	435	42	9
Total ...	401	4471	1397	430	1991	170	29

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	201	3075	740	137	52	—	—
6 "	124	1502	535	157	400	56	—
7 "	40	383	173	41	300	20	1
8 "	23	128	64	44	249	28	2
9 "	12	51	21	23	157	16	4
10 "	13	25	10	17	224	12	2
11 "	10	24	4	6	184	7	2
12 "	11	4	3	2	263	18	5
13 "	4	—	—	1	107	2	2
Total ...	438	5192	1550	428	1936	159	18

Table V. shows the result of an examination of 839 school children examined for the first time in the year 1920. Table H shows the results in Table V. for all children under 10 years of age, reduced to a ratio of 100 children for each age and sex, to enable comparison to be made with previous years.

H.—Table showing the number of sound and decayed teeth of the children examined for the first time in the year 1920, expressed in the ratio of 100 children for each age and sex.

Age.	Temporary Teeth.				Permanent Teeth.			
	Sound.		Decayed.		Sound.		Decayed.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5 Years	1472	1529	452	436	15	25	1	—
6 "	1232	1211	602	556	338	322	41	45
7 "	891	957	562	535	704	750	70	52
8 "	508	556	595	469	895	1082	83	130
9 "	572	425	395	366	1159	1308	109	191

As compared with the year 1919 there has been a gain of sound temporary teeth in each year of age for both sexes, with the exception of the 8 year old group. There have been corresponding decreases in the decayed temporary teeth, with increases in the 8 year old group and a fractional increase in the 9 year old girls. With the exception of the 8 year old group the number of temporary teeth present has increased, and as the number of permanent teeth present will affect the comparisons of the temporary teeth, the latter becomes a question of relative proportions, and these are shown in Table VI.

VI.—Table showing the result of a first examination, with regard to the temporary dentition only, of new patients, before treatment in the year 1920.

Age.	Number of Children Examined.	Average Number of Temporary Teeth per Child.	Average Number of Decayed Temporary Teeth per Child.	Proportion of Decayed Teeth to Total Number.
5 Years	393	19.4	4.4	22.1
6 "	208	17.9	5.7	32.1
7 "	64	14.8	5.4	36.9
8 "	47	11.0	5.3	48.2
9 "	34	9.0	3.8	42.5

Since the commencement of the scheme, in the year 1907, the new patients, before treatment, have gained 3.6 sound temporary teeth per average 5 year old child. This gain represents an indirect benefit of dental treatment, and has been fully discussed in previous Reports.

V.—SUMMARY OF RE-EXAMINATIONS.

The children re-examined fall into three divisions, those who have required no permanent teeth filling in previous years, those who required and accepted such treatment, and lastly those who required and refused such treatment.

VII.—Table showing Results of a re-examination of 1,619 Children whose Permanent Teeth had required no treatment previously.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	166	1826	742	235	565	50	—
7 "	162	1355	674	220	1098	96	3
8 "	205	1488	775	242	1730	100	—
9 "	132	726	301	161	1284	66	3
10 "	85	391	24	64	1253	22	10
11 "	63	203	65	43	1138	18	6
12 "	62	75	45	16	1362	31	11
13 & 14	35	32	6	4	866	9	4
Total	910	6096	2632	985	9296	392	37

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
6 Years	156	1800	735	168	608	35	3
7 "	147	1105	644	192	1044	113	1
8 "	118	781	357	152	1270	68	—
9 "	101	503	230	118	1122	36	9
10 "	75	271	118	58	1221	25	8
11 "	56	140	35	41	1127	19	2
12 "	26	30	12	5	613	7	—
13 & 14	30	11	2	4	768	19	—
Total	709	4641	2133	738	7773	322	23

Of the 4,599 children inspected in the year 1920, there were 1,619 or 35.2 per cent. whose permanent teeth had required no treatment previously, 910 were boys and 709 were girls. 18 boys and 10 girls were found on re-inspection to have unsaveable permanent teeth. The re-examination also showed that 145 boys and 104 girls had no decay

present in either dentition, a further 3 boys and 5 girls had sound temporary teeth only, and 629 boys and 482 girls had sound permanent teeth only. 338 children in this group now found with decay commencing in their permanent teeth accepted treatment and were made artificially sound, but 64 children who were found to have decay similarly starting refused treatment.

VIII.—Table showing the Results of a re-examination of 1,697 Children whose Permanent Teeth had been treated and made artificially sound in previous years.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
6 Years	—	—	—	—	—	—	—
7 "	36	193	163	54	259	52	—
8 "	77	334	297	76	692	81	1
9 "	115	404	326	95	1495	78	6
10 "	178	444	401	117	2540	164	5
11 "	155	246	177	64	3090	156	5
12 "	169	204	81	39	3727	175	14
13 "	197	57	29	30	4817	251	14
14 "	82	1	3	4	2022	112	3
Total	1009	1883	1477	479	18642	1069	48

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
6 Years	1	—	9	1	7	1	—
7 "	40	230	214	63	309	46	—
8 "	74	327	300	88	805	57	1
9 "	107	340	287	93	1475	90	3
10 "	147	333	236	105	2486	117	6
11 "	98	130	74	48	1990	78	5
12 "	83	34	12	10	1978	102	7
13 "	111	22	6	12	2777	141	14
14 "	27	1	2	2	696	35	—
Total	688	1417	1140	422	12523	667	36

Table VII. gives the usual statistics of the "no treatment previously" group, while Table VIII. deals with 1,697 children comprised in the "treated previously" section. Of these latter children there were 735 who required no fresh treatment, as their permanent teeth were found sound on re-examination; 914 children required further treatment, and 48 children were found to have one or more unsaveable permanent teeth. 802 children again accepted treatment and were made sound. 112 children refused the offer of treatment and remained at the end of the year with saveable decayed permanent teeth.

The 48 children with unsaveable permanent teeth in this section, and the 25 children in a similar condition found in the preceding section of the re-examined, represent those whom an annual examination just fails to prevent having one or more permanent teeth decayed beyond the point at which they may be treated and saved. It is impossible to prevent a slight leakage in dealing with so many mouths, having regard to the rapidity with which some teeth are prone to decay, and to the fact that absence from school or sickness may have caused a child to miss the previous dental examination. These "unsaveables" emphasise the necessity for re-examinations at intervals not longer than twelve months. Similarly, the large number of children requiring further treatment illustrates the value of "following up." Children are constantly receiving additions to the permanent dentition, and schemes involving treatment without re-examination largely represent a waste of time, skill, and capital outlay.

The 1,697 children comprised in Table VIII. developed a total of 1,736 saveable decayed permanent teeth. This represents the amount of decay arising between inspections. The whole scheme aims at enabling the child to leave school with the full number of permanent teeth free from decay. 83.5 per cent. of all the children examined were left in the enviable position of having that dentition free from decay. In the particular group under notice the percentage was 90.5, an increase of 2.1% as compared with the year 1919. At the start of the scheme 85 per cent. of the children examined had decayed permanent teeth. The position is now more than reversed with regard to the "treated previously" group, and nearly reversed for all the groups together. This result must have a very important effect on the future general health and well-being of the community, while it may safely be predicted that the economic effects will prove dental treatment to be a very sound investment.

IX.—Table showing the results of a re-examination of 444 children who had refused treatment in previous years.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
7 Years	8	48	29	17	56	18	1
8 "	15	39	51	37	144	27	7
9 "	23	68	79	51	244	47	19
10 "	28	57	57	48	382	54	14
11 "	40	61	58	30	678	63	47
12 "	31	23	14	4	636	55	45
13 "	55	14	16	13	1203	135	77
14 "	22	1	7	1	461	70	31
Total	222	311	311	201	3804	469	241

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
7 Years	6	39	40	11	38	15	1
8 "	13	50	46	20	128	30	8
9 "	24	56	53	37	320	55	16
10 "	37	65	60	40	607	60	31
11 "	35	34	31	25	639	63	33
12 "	53	19	11	14	1031	94	81
13 "	40	7	6	1	864	110	70
14 "	14	5	1	—	300	47	30
Total	222	275	248	148	3927	474	270

Table IX. shows that the number of children who were re-examined and who had refused treatment previously was 444, of whom 65 now accepted treatment and were made artificially sound. Of the remainder, 95 renewed their refusals and represent the ever dwindling number of the persistent class of refusals, and 280 children had unsaveable permanent

teeth. The remaining four children had had their teeth made sound by private attendance. In consideration of the other groups re-examined the extent of one year's damage could be traced. In this group only the inevitable effects of neglect can be noted. The result, especially as regards the permanent dentition, is startling. The group possesses 72.8 per cent. of the unsaveable permanent teeth found among the 4,599 children examined, while more than a fourth of all the decayed saveable permanent teeth are peculiar to the 444 children of this group.

VI.—SUMMARY OF HYGIENE OF THE MOUTH.

As in previous years, all the children examined have been classified according to the general conditions of the mouth. For this purpose they were divided into three classes—A, healthy; B, pus discharged into the mouth; C, very unhealthy. It does not always follow that children who refused fillings likewise refused extractions; were this so the division for the children who "refused treatment previously" would show even worse results. The percentages are here shown:—

	A.	B.	C.
New patients... ..	54.8	41.9	3.2
No treatment previously ...	56.9	41.5	1.5
Treated previously	75.3	24.1	.5
Refused treatment previously	18.4	75.8	5.8

The principle has been continued of including in the C class only those children whose mouths seem to come within the penal clauses of the Children's Act. The total number of children thus classed, in the year 1920, was 86.

As compared with those seen on first inspection in the year 1919 the new patients have gained 8.4 per cent. in the A class, and lost 8.6 per cent. in the B class. The No Treatment Previously group have gained 7.8 per cent. in the A class and lost 7.6 per cent. in the B class. The Treated Previously group have gained 4 per cent. in the A class and lost 4.3 per cent. in the B class. These figures are very satisfactory and reflect a much improved general state. The Refused Treatment group on the contrary have, however, lost 2.1 per cent. in the A class and gained 1.1 per cent. in the B class. It is interesting to note that the C class remains nearly constant, the general tendency being towards a broadening of the conditions considered to be within the penal clauses.

Table X. shows the totals at the foot of Table C revised in accordance with the amount of treatment actually carried out during the year 1920.

X.

Number of Children.	Temporary Teeth.			Permanent Teeth.		
	Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
4599	24286	10888*	1054	62330	1284	625

* 1,165 teeth of this class treated with nitrate of silver.

The practical difficulties of dealing with the temporary dentition have been dealt with at length in previous reports. The position, however, continues gradually to improve, and the enormous decrease in oral sepsis since the scheme commenced may be gleaned from the comparison of the percentages in Table

XI.

Year.	Number of Temporary Teeth Inspected.	Temporary Teeth.		
		Percentage Sound.	Percentage Decayed Saveable.	Percentage Decayed Unsaveable.
1908	32341	48.1%	13.7%	38.2%
1913*	44549	59.6%	35.0%	5.4%
1914*	49218	61.8%	32.3%	5.9%
1915*	52262	63.9%	32.1%	4.0%
1916*	44637	63.6%	32.7%	3.6%
1917*	44312	62.0%	34.2%	3.6%
1918*	42705	64.5%	32.0%	3.4%
1919*	53533	65.2%	31.8%	3.0%
1920*	36228	67.0%	30.0%	2.9%

* After treatment during the year.

The present method of dealing with the temporary teeth is both directly and indirectly leading to the elimination of the worst and the diminution of the least decayed. Dental care for expectant and nursing mothers, the correct feeding of infants, the abolition of the "comforter," increased attention to the cleansing of the teeth and earlier dental attention than the present starting point of 5 years of age were indicated in the Report for the year 1919 as factors likely to reduce the incidence of decay in the temporary dentition still further, and it was also stated "That such diminution, by ensuring better nutrition to the infant, would result in improved conditions of the permanent teeth at a later age there can be no reason to doubt. The primary causes of dental decay are general and not local, and are associated with malnutrition and general constitutional disorders."

In view of these statements it is interesting to record that the Committee of Maternity and Infant Welfare have adopted a scheme for the dental treatment of children under 5 years of age. As a measure of prevention from more serious ills this treatment, already indicated as most to be desired, is to be welcomed. The children embraced by this scheme fall into two classes :—*a*, Those attending school ; *b*, Younger children not at present admitted to the Infant Departments.

In the year ending October 28th, 1908, Class *a* were examined and the results noted as follows :—

XII.

Ages.	Number of Children Examined.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
3 & 4 Years	251	3470	1196	315	2*	—	—

* These are cases of premature appearances of permanent teeth from which no general conclusion can be safely drawn.

It is obvious that the problem is concerned with the temporary dentition alone. It is now arranged that the inspection of Class *a* shall be undertaken in the schools as an addition to the ordinary routine school work, that these children should be given appointments, when necessary, for treatment, and that a start should be made to fill such carious temporary teeth as in the opinion of the inspecting dental officer may be restored with obvious advantage and to prevent extraction at a later stage. It might also be possible to re-start the "Toothbrush Clubs" in every Infant Department, and it may be noted that instruction to small children on matters of oral hygiene is most productive of results when taught by the teachers concerned as an ordinary lesson in school.

With regard to Class *b*, it is impossible to systematically inspect and treat this class. Advice should be tendered by Welfare Workers (and Medical Attendants) to the mothers to present these children for inspection at frequent intervals at the Institute, where supervision and treatment could be extended. It is proposed to devise a special card advising mothers on the care of infants' teeth, and specifying the address of the Institute and the days and times it is open. In the "Talks to Mothers" it has been the custom for the Dental Officer to enlarge on this aspect of the subject, and to inspect any children who happened to be at the Welfare Centre on the occasion of his visit. It is now proposed that in addition to advice he should give appointment cards for such infants as he may wish to see again, so that every chance of suitable treatment is afforded. It might be mentioned that no new equipment or accommodation is required for this new departure.

If reference is made to Table XI. it may be noted that in the years 1916 and 1917 there was a halt in the improvement of the temporary dentition. This may have been due to the alteration in diet occasioned in the years 1915 and 1916 by the War. It may also have been influenced by the loss of many Cambridge children who left the town, and to the influx of strange children from less favoured "dental" towns due to the moving of troops, the making of munitions, and the other familiar effects of War on population. The figures in Table XI., however, refer

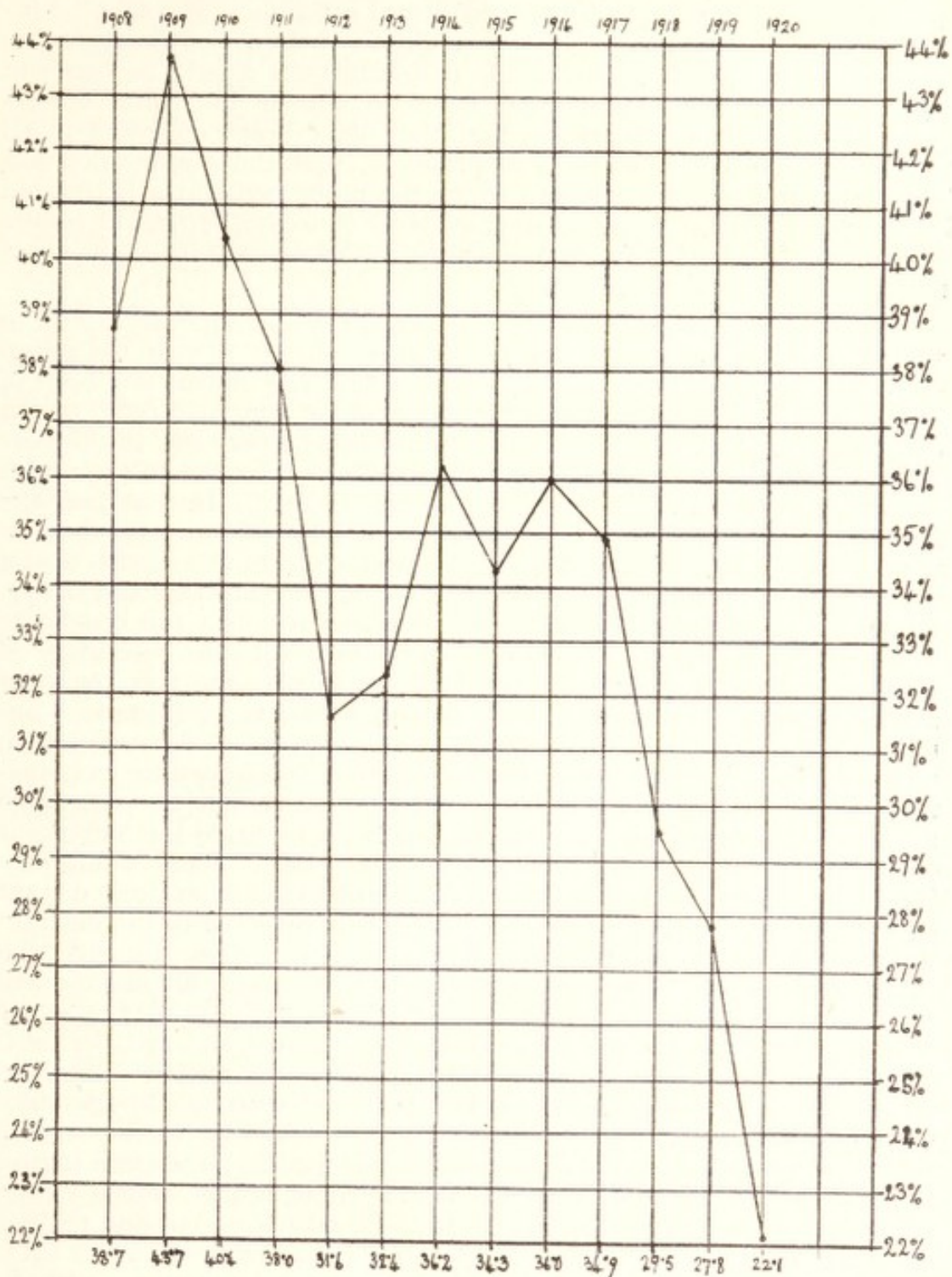


Diagram I.—Percentage of Decay in the Temporary Teeth of the Children aged 5 years, before treatment, in each year of the Scheme of School Dental Inspection from 1908 to 1920 (both inclusive).

to conditions after treatment. As the statement has been widely quoted that War diet favourably influenced dental conditions, it might be interesting to briefly glance at the conditions before treatment of the 5 year old group. In so doing the following facts should be borne in mind:—*a*, that the examinations have been made by dental officers and not by medical officers; *b*, that they have been conducted in all cases with the aid of mirror and probe; *c*, that the examination has been standardised—a tooth into which the probe penetrates is counted as decayed, even if it shows no other evidence of decay; *d*, that the results have been “charted,” and consequently the figures are based on exact facts and not on group differences.

Diagram I. shows the percentage of decayed temporary teeth to the total number of temporary teeth present in the 5 year old group of children, before treatment in each year that the scheme has been in existence. Commencing round 38.7 per cent. in the year 1908, it will be noted that the percentage of decay rose to 43.7 per cent. in the year 1909. From that point there was a steady improvement to 40.4 per cent. in 1910, 38 per cent. in 1911, 31.6 per cent. in 1912. In that year the Borough boundaries were extended, and a large number of children were added to the scheme who had received no “contact” with dental treatment in their homes as applied directly to elder brothers and sisters. It will be noted that this influx was sufficient to affect the beneficent influence of the “indirect benefit.” In the year 1913 the percentage of decay rose to 32.4 per cent., and during that year the first round of examinations and treatment of the Added Area was completed. Conditions grew worse in the year 1914, the percentage of decay rising to 36.2 per cent., and in that year further children were added for examination from the Higher Grade Schools. After these additions the percentage fell in the year 1915 to 34.3 per cent., and then occurred the movement of population to which reference has been made. Many Cambridge families left the district, and there was an influx of children from distant parts of the country. In the year 1916 this is reflected in the diagram by the percentage of decay rising to 36 per cent. After this final disturbance of conditions the process of improvement is steadily maintained. The percentage of decay falls to 34.9 per cent. in the year 1917, 29.5 per cent. in the year 1918, 27.8 per cent. in the year 1919, and 22.1 per cent. in the year 1920. The following statements may be made:—Improvement in the temporary dentition has been noted in Cambridge since 1909; there have been “set backs” due to additions to the scheme (1913 and 1914), and to the change of personnel in the population (1916). If the conditions were due to War diet it could not be shown in the years 1909, 1910, 1911, and 1912. If the conditions were due to War diet they could hardly be shown in *5 year old children* in the years 1915, 1917, 1918, and 1919. If the claim rests on local functional activity it certainly fails for all years before 1917; while if it rests on developmental reaction it fails for all years before 1920, and if on constitutional reaction on all years before 1919. The figures for the 6 year old new patients before treatment substantiate the figures for the 5 year old group. The “peak” is reached in the year 1910, the zero in 1913 at 36.4 per cent. The percentages of decay for the War years are 37.6 per cent. in the year

1914 ; 35.9 per cent. in the year 1915 ; 42.5 per cent. in the year 1916 ; 40.1 per cent. in the year 1917 ; 40.6 per cent. in the year 1918 ; 38.6 per cent. in the year 1919, and 32 per cent. in the year 1920. Thus the *unchecked* tendencies of the 5 year old group are followed a year later by the 6 year old group of new patients.

If the diagram be considered as a "cyclic" one it must be considered in relation to measles and scarlet fever. These curves show, for children of the ages under consideration, in the case of measles "peaks" in years 1915 and 1919, with a "zero" in 1917. In the case of scarlet fever the zero of 1909 rises to a peak in 1912, declines again to 1918 and again begins to ascend. It would be out of place in a Report of this character to further contrast these influences, but sufficient has probably been said to show that alongside the direct benefits of dental treatment there has ensued from one or more causes a distinct indirect benefit since the year 1909, and that War diet cannot be held solely responsible for such a desirable state of affairs ; particularly in children born 5, 4, 3, 2 or 1 year before the substitution of War bread and sugar rations for the pre-War "luxuries."

As the figures quoted refer to percentages of decayed teeth in the temporary teeth present, it may be added that they refer to average mouths of 19.45 teeth in the case of the 5 year old group, and of 17.6 teeth in the 6 year old group. (Further notes on average temporary dentitions will be found in the Report for the year 1915, pages 55, 56 and 57, and Table XIV.).

VII.—SUPPLEMENT TO REPORTS FOR THE YEARS 1917 AND 1918.

During the War the usual statistical tables comprising the third to sixth Summaries of this Report were prepared but not published. In the Report for the year 1919 the figures omitted in the year 1916 were included. In this Supplement the remaining years 1917 and 1918 are shown. This completes the Cambridge series of Dental Reports from 1907 to date.

The index letters attached to each of the following tables will, when compared with corresponding Tables in the preceding Summaries, indicate the nature and significance of the statistics.

D.—YEAR 1917.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
5 Years	100	1251	551	117	49	7	—
6 „	100	853	515	170	341	59	0.5
7 „	100	695	450	161	677	107	4
8 „	100	514	319	142	1010	107	7
9 „	100	420	232	108	1304	94	10
10 „	100	328	164	97	1448	102	22
11 „	100	174	78	51	1678	124	33
12 „	100	59	32	19	2264	71	33
13 „	100	21	13	10	2345	159	40

C.—YEAR 1917.

Age.	Number of Children Examined.	Number of Temporary Teeth			Number of Permanent Teeth		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
5 Years	630	7885	3471	742	311	44	—
6 „	729	6224	3757	1244	2488	432	4
7 „	768	5342	3457	1235	5204	821	35
8 „	574	2954	1833	816	5801	615	41
9 „	516	2168	1199	559	6729	487	56
10 „	578	1895	951	561	8370	590	128
11 „	412	717	322	210	6914	512	139
12 „	434	259	140	65	9829	310	146
13 „	312	67	43	34	7318	498	127
Total	4953	27511	15173	5466	52934	4309	676

I.—YEAR 1917.

Year.	Number of Children Grouped with the Number of Unsaveable Permanent Teeth in each Mouth.						Total Number of Unsaveable Permanent Teeth.	Total Number of Children with Unsaveable Permanent Teeth.
	I.	II.	III.	IV.	V.	VI.		
1917	210	103	48	25	2	1	389	676

E.—YEAR 1917.

Age.	Number of Children Examined.	No Decay including Both Dentitions.		Number of Children without Permanent Teeth.	Number of Children without Temporary Teeth.
		Number of Children.	Percentage		
5 Years	630	55	8.7	488	—
6 "	729	29	4.0	125	—
7 "	768	23	3.0	13	—
8 "	574	17	3.0	—	—
9 "	516	32	6.2	—	8
10 "	578	48	8.3	—	65
11 "	412	66	16.0	—	162
12 "	434	105	24.2	—	298
13 "	312	75	24.0	—	152
Total	4953	450	9.1	626	685

II.—YEAR 1917.

Age.	Number of Children Examined.	Number and percentage of Children who each had Before Treatment.									
		None Decayed.	%	One or Two Decayed.	%	Three or Four Decayed.	%	Five or Six Decayed.	%	Seven or More Decayed.	%
5 Years	630	55	8.7	50	8.0	93	14.7	89	14.1	343	54.4
6 "	729	29	4.0	56	7.9	99	13.5	95	13.0	450	61.7
7 "	768	23	3.0	58	7.5	105	13.6	153	19.9	429	55.8
8 "	574	17	3.0	82	14.2	110	19.1	145	25.2	220	38.3
9 "	516	32	6.2	98	19.0	144	27.9	104	20.1	138	26.7
10 "	578	48	8.3	169	29.2	158	29.0	105	18.1	98	16.9
11 "	412	66	16.0	155	37.6	101	24.5	50	12.1	40	9.7
12 "	434	105	24.2	162	37.3	101	23.2	56	12.9	10	2.3
13 "	312	75	24.0	124	40.0	67	21.1	35	11.2	11	3.5
Total	4953	450	9.1	954	19.2	978	19.7	832	16.8	1739	35.1

During the year 1917 there were found 78 children who had Temporary Teeth free from decay, but with decayed Permanent Teeth.

F.—YEAR 1917.

Age.	Number with Permanent Teeth.	Number of Children whose Permanent Teeth were :						Number of Children who had Decayed Permanent Teeth and who refused Treatment.	
		*Sound.		Made Artificially Sound.		Unsaveable.			
		No.	%	No.	%	No.	%	No.	%
5 Years	144	118	81.9	18	12.5	—	—	6	4.1
6 "	604	388	64.2	156	25.8	3	.5	57	9.4
7 "	755	382	50.6	268	35.5	21	2.7	84	11.1
8 "	574	277	48.2	208	36.2	25	4.3	64	11.1
9 "	516	254	49.2	179	34.6	29	5.6	54	10.4
10 "	578	260	44.9	185	32.0	76	13.1	57	9.8
11 "	412	162	39.3	145	35.2	67	16.2	38	9.2
12 "	434	171	39.4	159	36.6	62	14.2	42	9.6
13 "	312	91	29.1	134	42.9	64	21.1	23	7.3
Total	4327	2103	48.6	1452	33.5	347	8.0	425	9.8

* Including Children made Artificially Sound in previous years.

V.—YEAR 1917.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Unsaveable	Sound.	Decayed Saveable.	Decayed Unsaveable
5 Years	346	4327	1909	417	162	26	—
6 "	171	1788	1040	315	514	94	—
7 "	59	451	314	87	371	67	—
8 "	23	155	49	47	241	32	1
9 "	31	165	66	47	385	33	5
10 "	17	67	26	18	262	22	2
11 "	19	68	24	17	303	27	6
12 "	7	4	2	2	56	9	5
13 "	6	6	7	—	132	14	1
Total	679	7031	3437	950	2426	324	20

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
5 Years	284	3558	1562	325	149	18	—
6 "	140	1548	660	225	478	85	2
7 "	104	704	533	189	709	132	6
8 "	17	76	53	35	193	19	1
9 "	22	90	48	36	274	27	6
10 "	19	77	20	17	307	27	3
11 "	9	41	6	5	162	8	—
12 "	11	11	4	2	248	21	2
13 "	7	10	4	2	146	16	3
Total	613	6115	2890	836	2666	353	23

H.—YEAR 1917.

Age.	Temporary Teeth.				Permanent Teeth.			
	Sound.		Decayed.		Sound.		Decayed.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5 Years	1250	1252	672	664	46	52	7	6
6 "	1045	1105	792	632	300	341	55	62
7 "	764	677	679	694	628	681	113	132
8 "	674	447	417	517	1047	1135	143	117
9 "	532	409	364	381	1242	1245	122	150

VI.—YEAR 1917.

Age.	Number of Children Examined.	Average Number of Temporary Teeth per Child.	Average Number of Decayed Temporary Teeth per Child.	Proportion of Decayed Teeth to Total Number.
5 Years	630	19.2	6.7	34.9
6 "	311	17.9	7.2	40.1
7 "	163	13.9	6.9	49.2
8 "	40	10.3	4.6	44.3
9 "	53	8.5	3.7	43.5

VII.—YEAR 1917.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	205	1100	1027	327	647	97	—
7 "	220	1728	992	369	1298	156	2
8 "	119	883	342	130	1036	61	3
9 "	97	554	211	99	1253	60	3
10 "	66	352	107	59	1049	51	4
11 "	28	84	36	21	522	10	—
12 "	21	25	11	10	470	8	—
13 & 14,,	12	—	1	2	314	6	1
Total	768	4726	2727	1017	6589	449	13

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	188	1614	901	324	730	116	—
7 "	189	1431	786	273	1354	170	—
8 "	127	773	397	206	1270	120	2
9 "	68	325	153	81	858	44	6
10 "	61	314	81	61	109	29	4
11 "	29	86	27	28	528	22	1
12 "	37	30	14	8	877	20	5
13 & 14,,	10	4	—	2	257	12	3
Total	709	4577	2359	983	5983	533	21

VIII.—YEAR 1917.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	15	106	68	27	73	19	1
7 "	70	411	308	94	550	83	1
8 "	106	412	382	122	1147	115	3
9 "	100	377	247	88	1322	88	6
10 "	160	485	319	105	2462	129	14
11 "	139	261	126	62	2601	158	7
12 "	151	111	74	21	3442	162	14
13 & 14 "	99	18	5	7	2279	115	11
Total	840	2181	1529	526	13876	869	57

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	4	27	23	9	19	5	—
7 "	80	417	329	74	604	100	4
8 "	123	505	404	113	1422	118	3
9 "	160	520	372	122	2183	150	11
10 "	169	405	253	104	2906	159	5
11 "	121	110	59	48	1605	152	8
12 "	148	45	25	18	3513	252	16
13 & 14 "	122	16	19	18	3001	195	13
Total	927	2045	1484	506	15253	1131	60

IX.—YEAR 1917.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	2	12	13	7	9	5	—
7 "	22	109	97	64	136	62	8
8 "	22	30	79	49	159	56	10
9 "	26	100	76	43	272	53	16
10 "	28	61	41	34	407	62	41
11 "	30	43	24	10	497	51	59
12 "	28	18	5	2	549	68	64
13 & 14 "	27	11	3	3	582	51	41
Total	185	384	338	212	2611	408	239

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	4	29	25	10	18	11	1
7 "	24	91	98	85	182	51	14
8 "	37	120	127	114	333	94	18
9 "	12	37	26	23	152	32	3
10 "	58	134	104	63	868	111	55
11 "	37	24	20	19	696	84	58
12 "	31	15	5	2	674	60	40
13 & 14 "	29	2	4	—	607	87	54
Total	232	452	409	316	3530	530	243

GENERAL CONDITION OF THE GUMS.—YEAR 1917.

	A.	B.	C.
New Patients...	42.3	53.4	4.3
No Treatment Previously ...	42.1	55.2	2.7
Treated Previously ...	70.0	29.9	.1
Refused Treatment Previously	19.0	74.9	6.1

X.—YEAR 1917.

Number of Children	Temporary Teeth.			Permanent Teeth.		
	Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
4953	27511	15173*	1628	56057	1186	560

* 972 of these Teeth treated with Nitrate of Silver.

XI.—YEAR 1917.

Year.	Number of Temporary Teeth Inspected.	Temporary Teeth.		
		Percentage Sound.	Percentage Decayed Saveable.	Percentage Decayed Unsaveable.
1917*	44312	62.0%	34.2%	3.6%

* After Treatment during the War.

C.—YEAR 1918.

Age.	Number of Children Examined.	No. of Temporary Teeth.			No. of Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5 Years	438	5947	2023	471	189	12	—
6 "	592	6201	2886	843	1996	244	—
7 "	684	5034	3037	993	4937	614	18
8 "	664	3744	2308	810	6659	575	56
9 "	677	2914	1718	674	7061	581	78
10 "	598	1966	951	425	9305	525	89
11 "	633	1199	531	267	11959	707	150
12 "	526	432	186	118	11541	664	173
13 & 14 "	440	117	39	43	10797	717	171
Total	5252*	27554	13679	4644	64444	4639	735

* Including "Casuals" inspected and treated during the year other than Routine cases.

D.—YEAR 1918.

Age.	Number of Children Examined.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable.
5 Years	100	1350	461	107	43	2	—
6 "	100	1047	487	142	337	41	—
7 "	100	735	444	145	722	89	2
8 "	100	564	347	122	1003	86	8
9 "	100	430	253	99	1043	85	11
10 "	100	328	159	67	1558	87	15
11 "	100	189	84	18	1889	111	23
12 "	100	70	35	22	2194	126	32
13 & 14 "	100	26	9	9	2453	163	38

I.—YEAR 1918.

Year.	Number of Children Grouped with the Number of Unsaveable Permanent Teeth in each Mouth.				Total Number of Children with Unsaveable Permanent Teeth.	Total Number of Unsaveable Permanent Teeth.
	I.	II.	III.	IV.		
1918	233	132	42	28	435	735

E.—YEAR 1918.

Age.	Number of Children Examined.	No Decay including Both Dentitions.		Number of Children without Permanent Teeth.	Number of Children without Temporary Teeth.
		Number of Children.	Percentage		
5 Years	438	59	13.4	349	—
6 "	592	34	5.7	127	—
7 "	684	14	2.0	10	—
8 "	664	30	4.5	—	2
9 "	677	35	5.1	—	14
10 "	598	63	10.5	—	55
11 "	633	118	18.5	—	175
12 "	526	151	28.7	—	285
13 & 14 "	440	112	25.4	—	336
Total	5252	616	11.5	486	867

II.—YEAR 1918.

Age.	Number of Children Examined.	Number and Percentage of Children who each had before Treatment :—									
		None Decayed.	%	One or Two Decayed.	%	Three or Four Decayed.	%	Five or Six Decayed.	%	Seven or More Decayed.	%
5 Years	438	59	13.4	55	12.5	59	13.4	73	16.6	192	43.7
6 "	592	34	5.7	39	6.5	75	12.6	121	20.4	323	54.5
7 "	684	14	2.0	66	9.6	113	16.5	131	19.1	360	52.5
8 "	664	30	4.5	75	11.3	147	22.1	163	24.5	249	37.5
9 "	677	35	5.1	141	20.8	173	25.5	155	22.9	173	25.5
10 "	598	63	10.5	178	29.7	179	29.9	97	16.2	81	13.5
11 "	633	118	18.6	215	33.9	169	26.7	79	12.4	52	8.2
12 "	526	151	28.7	191	36.3	118	22.4	42	7.9	24	4.5
13 & 14 "	440	112	25.4	158	35.9	120	27.2	30	6.9	20	4.5
Total	5252	616	11.5	1118	21.2	1153	21.9	891	16.9	1474	28.0

During the year 1918 there were 6 children who had Temporary Teeth free from decay but with decayed Permanent Teeth.

F.—YEAR 1918.

Age.	Number with Permanent Teeth.	Number of Children whose Permanent Teeth were :						Number of Children who had Decayed Permanent Teeth and who refused Treatment.	
		*Sound.		Made Artificially Sound.		Unsaveable.			
		No.	%	No.	%	No.	%		
5 Years	89	81	91.0	7	7.8	—	—	1	1.1
6 "	465	328	70.5	103	22.1	—	—	34	7.3
7 "	674	377	55.9	200	29.6	13	1.9	84	12.4
8 "	664	364	54.6	205	30.8	40	6.0	55	8.3
9 "	677	344	50.8	216	31.9	46	6.8	71	10.5
10 "	598	296	49.4	182	30.4	57	9.5	63	10.5
11 "	633	251	39.6	224	35.4	79	12.5	79	12.5
12 "	526	202	38.4	167	31.7	72	13.7	85	16.1
13 & 14 "	440	127	28.8	170	38.5	87	19.7	56	12.7
Total	4766	2370	49.7	1474	30.9	394	8.2	528	11.2

V.—1918.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
5 Years	228	3137	1005	262	91	6	—
6 "	116	1215	653	195	361	35	—
7 "	70	508	396	135	435	65	3
8 "	26	198	80	38	238	23	1
9 "	21	147	49	32	246	22	—
10 "	15	47	23	17	220	24	2
11 "	8	26	6	5	133	6	—
12 "	10	12	9	3	198	8	1
13 & 14 "	8	1	—	1	187	6	—
Total	502	5291	2221	688	2109	195	7

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable	Decayed Un-saveable
5 Years	210	2810	1018	209	98	6	—
6 "	118	1248	627	199	435	65	—
7 "	62	485	282	125	417	75	1
8 "	36	214	113	74	346	40	7
9 "	27	133	83	32	316	39	5
10 "	20	56	32	17	293	33	3
11 "	14	47	17	10	226	29	1
12 "	11	4	2	5	254	19	1
13 & 14 "	10	—	1	—	242	22	2
Total	508	4997	2175	671	2627	328	20

H.—YEAR 1918.

Age.	Temporary Teeth.				Permanent Teeth.			
	Sound.		Decayed.		Sound.		Decayed.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
5 Years ...	1376	1338	555	584	40	46	2	3
6 " ...	1047	1057	731	700	311	369	30	55
7 " ...	726	782	758	656	621	672	97	122
8 " ...	761	594	453	519	915	911	92	130
9 " ...	700	493	385	426	1171	1170	105	163

VI.—YEAR 1918.

Age.	Number of Children Examined.	Average Number of Temporary Teeth per Child.	Average Number of Decayed Temporary Teeth per Child.	Proportion of Decayed Teeth to Total Number.
5 Years ...	438	19.2	5.7	29.5
6 " ...	234	17.7	7.1	40.4
7 " ...	132	14.6	7.1	48.6
8 " ...	62	10.1	4.3	42.6
9 " ...	48	9.9	4.0	41.1

VII.—YEAR 1918.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	192	2021	925	247	579	74	—
7 "	189	1552	735	248	1327	110	—
8 "	164	1138	580	194	1517	77	—
9 "	121	780	301	97	1403	51	3
10 "	80	445	152	47	1137	23	—
11 "	54	218	41	28	962	28	7
12 "	41	75	120	10	830	10	7
13 & 14 "	26	30	4	5	622	16	4
Total	867	6259	2858	876	8377	389	21

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	155	1638	623	186	569	58	—
7 "	144	1061	663	191	875	102	—
8 "	135	783	459	133	1331	96	1
9 "	92	479	247	109	1191	38	1
10 "	58	260	95	49	905	18	—
11 "	63	214	43	34	1185	23	6
12 "	32	71	13	7	718	13	1
13 & 14 "	23	4	2	5	612	11	—
Total	702	4510	2145	714	7386	359	9

VIII.—YEAR 1918.

Age.	Number of Boys.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable.	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	—	—	—	—	—	—	—
7 "	114	583	488	124	204	104	1
8 "	98	482	363	90	1011	83	5
9 "	150	512	404	108	1883	125	4
10 "	172	580	277	124	2593	138	3
11 "	214	370	237	83	3904	239	14
12 "	191	147	85	43	4262	225	9
13 & 14 "	100	37	18	14	2390	158	4
Total	1039	2711	1872	586	16247	1072	40

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	2	10	12	4	8	3	—
7 "	61	336	265	60	538	59	1
8 "	143	659	514	130	1628	112	2
9 "	184	610	430	155	2615	138	7
10 "	167	407	222	72	2887	135	6
11 "	182	225	113	62	3741	192	7
12 "	141	70	35	29	3206	177	11
13 & 14 "	166	22	7	6	3319	269	6
Total	1046	2339	1598	518	17942	1085	40

IX.—YEAR 1918.

Age.	Number of Boys.	Temporary Teeth			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	—	—	—	—	—	—	—
7 "	18	106	86	49	108	47	1
8 "	23	100	75	55	211	52	22
9 "	36	125	93	60	394	73	30
10 "	31	92	66	39	409	61	22
11 "	39	46	38	24	685	71	52
12 "	39	23	8	10	770	73	48
13 & 14 "	49	7	4	2	1107	109	68
Total	235	499	370	239	3684	486	253

Age.	Number of Girls.	Temporary Teeth.			Permanent Teeth.		
		Sound.	Decayed Saveable.	Decayed Un-saveable	Sound.	Decayed Saveable.	Decayed Un-saveable
6 Years	—	—	—	—	—	—	—
7 "	26	103	122	61	213	52	11
8 "	39	170	124	96	377	92	18
9 "	46	128	111	81	543	95	28
10 "	55	79	84	60	861	93	53
11 "	59	53	36	21	1123	119	73
12 "	61	30	22	11	1283	139	75
13 & 14 "	58	8	2	—	1318	118	91
Total	344	571	501	330	5718	708	349

GENERAL CONDITIONS OF THE GUMS.—YEAR 1918.

	A.	B.	C.
New Patients	42.5	55.1	2.4
No Treatment Previously...	49.9	49.0	1.1
Treated Previously... ..	70.0	29.8	.2
Refused Treatment Previously	11.2	83.8	5.0

X.—YEAR 1918

Number of Children	Temporary Teeth.			Permanent Teeth.		
	Sound.	Decayed Saveable.	Decayed Unsaveable.	Sound.	Decayed Saveable.	Decayed Unsaveable.
5252	27554	13679*	1472	67343	1740	682

* 999 of these Teeth treated with Nitrate of Silver.

XI.—YEAR 1918.

Year.	Number of Temporary Teeth Inspected.	Temporary Teeth.		
		Percentage Sound.	Percentage Decayed Saveable.	Percentage Decayed Unsaveable.
1918*	42705	64.5%	32.0%	3.4

* After Treatment during the Year.

VIII.—VALEDICTORY.

The Cambridge Dental Institute for Children was founded in July, 1907, through the efforts of the late Dr. G. Cunningham, and was commenced as a private scheme, the expenses being entirely borne by the late Mr. Sedley Taylor until April, 1909, when the work was taken over by the municipality. The first whole-time officer was the late Dr. H. T. Simpson, who resigned his position in October, 1907, and was succeeded by Mr. A. W. Gant, L.D.S. (Eng.), who continued in office until October, 1911, when the duties of Borough Dentist were entrusted to myself. This is consequently the Tenth Annual Report I have had the privilege of presenting, and on the eve of leaving Cambridge to take up similar duties for the County Council of Staffordshire, it may be permitted to place on record some of the salient facts in connection with the pioneer clinic of the Empire.

From the opening of the Institute all treatment has been free to the children attending the elementary schools, and to this fact must be attributed much of the success of the scheme, the smallest charge for dental treatment is most adverse to the results obtained, parents being unwilling to pay even a few pence for skilled attention to the teeth of their children. In fact, this has been borne out by experience in the Higher Grade Schools of Cambridge, in which, when a small fee first imposed for treatment had been abolished, the percentage of acceptances of treatment rose from 33 to 91%. Even so, the refusals are a reflection on the parents of the town, for the Annual Re-inspections reveal the fact that attention is not sought elsewhere, and that the refusal cases simply drift on into a state of chronic neglect, which tends to become hopeless about the age at which these children leave school.

Until May, 1908, the inspection of the children's teeth was conducted jointly with the school medical inspections, but subsequent to that date the dental inspections have been carried on separately, as more children can be examined per session, and there is less inconvenience caused in the schools owing to the age groups not coinciding. Originally about thirty mouths could be examined per session; but now that the children have become accustomed to the procedure this number is at least doubled. At first children of all ages were examined, but so hopeless were the conditions found to be that after the first round of inspection (which produced invaluable statistics at a time when no school dentistry had been systematically attempted) this plan was revised, and in 1909 only children under nine years of age were included. In each succeeding year these children were "followed up," and the younger new scholars added, until all the elementary school children, of all ages, were included in the benefits of the scheme.

The first round of inspection revealed most appalling conditions. Taking all ages, from 4 to 14 years together, the children had more decayed temporary teeth than sound ones, and in all ages, taken together, 40 per cent. of the permanent teeth were decayed. One child in every

four examined had unsaveable permanent teeth, and one child in every nine examined had more than eight decayed permanent teeth. As few as 70 children (2.4 per cent.) were found with teeth entirely free from decay, while of children with permanent teeth, only 360 (or 15 per cent.) were found to have that dentition free from decay. While the tooth-brush (and more particularly its correct use) was nearly unknown, it was found that one child in every three examined had free pus in the mouth, some of which would be swallowed every time food was taken, while other portions of it, thrown out in speaking or singing, would tend to pollute the school atmosphere and lower the vitality of both teachers and children.

How this deplorable state of affairs has been altered may best be shown by first summarising the treatment done each year, excluding sundries.

Year.	Number of Children Examined.	No. of Children treated for:			Fillings of				Extractions of:		Dressings of Silver Nitrate.
		Fillings only.	Fillings and Extractions.	Extraction only.	Amalgam.	Amalgam and Cement.	Cement.	Root Canal Treatment.	Temporary Teeth.	Permanent Teeth.	
1907	524	60	52	22	308	69	35	15	73	6	74
1908	2828	419	311	792	1741	1042	36	13	1008	37	1254
1909	2843	407	339	511	1430	1140	8	3	1121	61	1042
1910	2784	435	479	746	1664	1214	4	4	1481	113	936
1911	3398	550	475	796	1887	1057	3	3	1693	89	767
1912	4254	962	673	670	3234	1400	16	9	2307	79	1104
1913	5041	1183	677	940	3379	1160	20	44	3270	77	1013
1914	5399	1026	881	1453	3450	918	31	102	3942	133	947
1915	5837	1178	798	1249	2669	1108	26	93	3968	104	851
1916	5408	1135	602	1119	2314	1268	10	62	3520	93	1045
1917	5378	918	762	1149	2263	1533	4	28	3838	116	972
1918	5009	973	555	980	1615	1398	9	29	3172	53	999
1919	6947	1324	915	1579	2273	1849	19	40	4187	105	1070
1920	4566	836	632	1169	1390	1239	18	37	2800	77	1165
Total.	60,216	11,406	8,151	13,175	29,617	16,395	239	482	36,580	1,143	13,239
			32,732			46,733			37,723		

The results obtained by the treatment of these 32,732 children by the insertion of 46,733 fillings, and the extraction of 37,723 septic teeth, are summarised in the next table.

Table T.

Year.	Number of Children with Permanent Teeth.	Number and Percentage of Children with Sound Permanent Teeth.		Number and Percentage of Children made Artificially sound during the Year.		Number and Percentage of Children with Permanent Teeth free from Decay and none missing.		Average Number of fillings required to make a Child Art. Sound.	Percentage of all Metal Fillings.	Percentage of Metal and Cement "Lined" Fillings.
		No.	%	No.	%	No.	%			
1908	2397	350	15.0	730	30.4	1090	45.4	3.7	61.4	38.6
1909	2170	589	27.1	746	34.3	1330	61.4	3.5	55.5	44.5
1910	2303	771	33.4	893	38.6	1664	72.0	3.1	57.7	42.3
1911	2843	981	34.5	1025	36.1	2006	70.6	2.8	64.0	36.0
1912	3779	1097	29.0	1630	43.1	2727	72.1	2.6	69.5	30.5
1913	4069	1517	37.3	1670	41.0	3187	78.3	2.4	73.5	26.5
1914	4716	1961	41.6	1856	39.4	3817	81.0	2.3	76.7	23.3
1915	5055	2449	48.4	1722	34.0	4171	82.4	1.9	68.5	31.5
1916	4667	2285	48.9	1543	33.0	3828	81.9	2.1	63.3	36.7
1917	4327	2103	48.6	1452	33.5	3555	82.1	2.3	59.2	40.8
1918	4766	2370	49.7	1474	30.9	3844	80.6	2.0	52.9	47.1
1919	5938	2825	47.5	1985	33.4	4810	80.9	1.8	53.5	46.5
1920	4134	2118	51.2	1336	32.3	3454	83.5	1.8	51.8	48.2

Table T illustrates the cumulative benefit of dental treatment in respect of the permanent dentition. It will be noted that the percentage of children with sound permanent teeth at the commencement of the scheme was 15.0 per cent. As a result of treatment the percentage of children with sound permanent teeth rose gradually until it reached 51.2 per cent. in the year 1920. There were occasional set backs. The extension of the Borough, and the sudden influx of a number of hitherto untreated children, was responsible for the declining figure of the year 1912; while the fact that the period elapsing between re-inspections was lengthened, owing to shortage of staff, caused slight fluctuations in 1917, 1918 and 1919. To the percentage of children found sound each year must be added the percentage of children treated and made "artificially sound" each year. This percentage has varied between 30.4 per cent. in the year 1908 to 43.1 per cent. in the year 1912. For some years back it will be seen that the percentage treated per annum has hovered round 33 per cent. The net results of treatment are added together and shown to vary from 45.4 per cent. in the year 1908, to 83.5 per cent. in the year 1920. In other words, the position in respect of the permanent dentition has been nearly completely reversed.

The last three columns in Table T are of great interest. They show that the amount of decay requiring treatment steadily diminished each year from 1908 to 1915. This is illustrated in two methods, first, the number of fillings required on an average to make a child sound decreased from 3.7 to 1.9, or nearly half; second, the percentage of the less decayed cavities treated steadily rose from 55.5 per cent. in the year 1909 to 76.7 per cent. in the year 1914. The influence of the War is shown by a greater degree of decay in the cavities treated in 1915, 1916, and each subsequent year, during which the percentage of the less decayed cavities treated fell from 76.7 in the year 1914 to 51.8 in the year 1920.

It must be borne in mind, however, that the figures for the years 1917, 1918 and 1919 are doubtlessly affected on this point by the longer period of time intervening between inspections ; nevertheless, the figures for the year 1920 show a greater degree of decay than in any preceding year, and these figures are strictly comparable in respect of time intervening between inspections being not more than twelve months. It must be concluded therefore that there is no evidence that War conditions have favourably influenced the permanent teeth of children of school age born between the years 1906 and 1915, and living all or part of their lives under a diet of restricted sugar and war bread. On the contrary, if the conclusions advanced in these Reports for ten years be accepted, the figures quoted show that the shortage of butter, eggs, milk and fats generally has caused a constitutional reaction leading to a more and more rapid deterioration of tooth tissues. To these considerations must be added the effects of "Summer Time," which lead to many of the children not obtaining the amount of sleep necessary for the recuperation of their nervous tissues at the period of their greatest growth.

As "there ariseth a little cloud out of the sea, like a man's hand," which quickly spreads and throws a mantle over the heavens, so the movement of school dentistry, commencing at East Road Infants' School, Cambridge, on a morning in July, 1907, has now become an accepted adjunct to Public Health and Welfare throughout the United Kingdom and the British Dominions. That it should be necessary is a lamentable evidence of the decadence of our race ; that it should exist to combat disease and release our children from suffering is a mighty tribute to British benevolence and common-sense, and a monument to Mr. Sedley Taylor and Dr. George Cunningham more enduring than bronze.

"Peace hath her victories
No less renowned than War."

WILLIAM H. JONES.



