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CITY OF YORK EDUCATION COMMITTEE.

The Medical Inspection of Children in the York
Public Elementary Schools.

ANNUAL REPORT

FOR THE YEAR ENDING DECEMBER 31st, 1915,

BY

EDMUND M. SMITH, M.D. (Edin.), D.P.H. (Camb),

School Medical Officer and Medical Officer of Health.

Councillor K. E. T. WILKINSON,

Chairman.

J. H. MASON,

Secretary.

EDUCATION OFFICES,
CLIFFORD STREET,
YORK

YORK :


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BY

EDMUND M. SMITH, M.D. (Edin.), D.P.H. (Camb.),

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CITY OF YORK EDUCATION COMMITTEE.

NAMES OF MEMBERS.

1914-1915.

The Right Hon. the Lord Mayor (Councillor J. Bowes Morrell), The
Mansion House, York.

Chairman :—

Councillor K. E. T. Wilkinson.

Vice-Chairman :—

Rev. W. Johnson, B.A.

Special Schools and Medical Sub-Committee.

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" James Brown Inglis.
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" Richard Petty.

Councillor Joseph Hardgrave.
Mr. W. H. Hodgson.
Mr. D. S. Crichton.
Mrs. K. E. T. Wilkinson.

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SCHOOL MEDICAL OFFICER :—

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ASSISTANT SCHOOL MEDICAL OFFICER :—

E. Scott Galbraith, L.R.C.P. & S. (Edin.) ; L.R.F.P. & S. (Glas.), D.P.H.

TEMPORARY ASSISTANT SCHOOL MEDICAL OFFICER since the outbreak of the WAR :—

Norah Kemp, M.B., C.M.

OPHTHALMIC ASSISTANT SCHOOL MEDICAL OFFICER :—

Peter Macdonald, M.D., assisted by G. Wilfrid Gostling, M.B.

DENTAL ASSISTANT SCHOOL MEDICAL OFFICER :—

T. E. Constant, M.R.C.S. (Eng.), L.D.S., L.R.C.P. (Lond.).

SCHOOL NURSES :—

Miss Annie E. Simpson, C.M.B., H.V. & S.N., Certif. Royal San. Inst.

Miss Margaret Grant, C.M.B., H.V. & S.N., Certif. Royal San. Inst.

CLERK :—

Miss J. Masterman.

ASSISTANT CLERK :—

Miss D. Bousfield.

The Medical Inspection of Children in the York
Public Elementary Schools.

ANNUAL REPORT

FOR THE YEAR ENDING 31ST DECEMBER, 1915.

To the Chairman and Members of the York Education
Committee.

Mr. Chairman, Ladies and Gentlemen,

I beg to place before you this the Eighth Annual Report on the Medical Inspection of the Scholars in the York Elementary Schools. As the year under review has been an uneventful one, this Report will be found to be much shorter than its predecessors.

It contains, however, one most important and interesting section to which I should like to call the special attention of the Members of the Committee, viz. :—a report by Mr. Constant, the Dental Surgeon of our School Clinic, on “The Condition of the Teeth of ten thousand Children attending the Elementary Schools in the City of York during the years 1914-15.” The work covered by this Report constitutes a piece of research work which Mr. Constant has been able to carry out in addition to giving full measure of time at the Dental Clinic, and is as unique as it is valuable. So far as I know, no such thorough investigation of so large a number of elementary school children has been attempted before, and it is a matter for congratulation that the City of York should have the credit of its achievement.

The remainder of this Annual Report gives all the statistical information about the work of the year 1915 upon record, and as required by the Board of Education; otherwise it has been compressed in order to give prominence to the special Dental section. The Report also contains a short summary of the results of the first medical inspection of the pupils attending the Municipal Secondary School for Girls.

During the year 1915 we have been fortunate in that Dr. Norah Kemp has been able to continue to act as temporary part-time Assistant School Medical Officer, in the absence at

the war of Dr. Galbraith, and has been able to give from two to four hours per day to the routine medical inspections at the schools (so much of that work as was possible), the special examinations and other work of the School Clinic, supervision of treatment thereat, and the detailed supervision of the children in the special schools ; and I am much indebted to her for the zealous interest and hard work which she has contributed during the past difficult year.

From April 1st, 1915, the Board of Education required the inspection of an intermediate age-period of children, *i.e.*, those between eight and nine years of age.

In order to carry out this increase of work, and in order to cope with the other work of inspection more fully than is possible to a part-time Medical Officer, it was proposed to utilise the additional part-time services of another lady doctor in the city ; two such lady doctors were willing to give their services for very moderate remuneration, and it was proposed to accept those of Mrs. Mary Ferguson, M.B., Ch.B. (Edin.), but the proposal to utilise such additional medical service was rejected by the City Council. Consequently, none of the new work has yet been carried out, and only such limited amount of the inspection at the other age-periods as was possible under the circumstances. In the latter connection, it is important to note that it has been evident that the work of the School Clinic has been greatly increased during the year in consequence of the depletions of the medical staff at the County Hospital and Dispensary. Therefore our efforts have had to be concentrated upon the Clinics ; the utmost remaining time was devoted to the medical inspections at the schools.

The " General " and " Miscellaneous Treatment " Clinics continue to deal with a very considerable number of minor ailments, the majority of which would otherwise go unattended, and the children would remain out of school for lengthy periods.

On behalf of Dr. Kemp and myself I beg to thank you for your support in our work throughout the past year.

I am, Mr. Chairman, Ladies and Gentlemen,

Yours obediently,

EDMUND M. SMITH,

School Medical Officer and
Medical Officer of Health.

May, 1916.

1.—THE ELEMENTARY SCHOOLS NOW COMPRISE :—

Twelve provided and eighteen non-provided schools, 30 in all, including the two special schools.

The numbers of children on the school registers during the year 1915 were as follows :—

Total No. of children on the Registers for the school				
year ended 30th September, 1915	..	..	..	14,660
Upper Department, Boys	..	..	5,025	
" " Girls	..	..	4,841	
Infants' " Boys	..	..	2,443*	
" " Girls	..	..	2,351*	
Average attendance for the school year ended 30th				
September, 1915 (88.6%)	..	..	..	12,814

* In these figures are included 1,107 children under 5 years of age (573 boys and 534 girls).

ORGANISATION OF THE SCHOOL MEDICAL SERVICE.

The Medical Officer of Health is the School Medical Officer recognised by the Board of Education. He is assisted in normal times by one whole-time Assistant School Medical Officer, a part-time Dental Surgeon, a part-time Ophthalmic Medical Officer, two whole-time School Nurses, and two whole-time Clerks. Our Ophthalmic Medical Officer, Dr. Macdonald, being chiefly engaged in military medical service in the City, his suggestion that he be permitted to employ the services of Dr. G. W. Gostling as his Assistant and Deputy at the Ophthalmic Clinic was adopted; otherwise, and except as to the Assistant School Medical Officership referred to above, the organisation of the School Medical Service has remained unaltered.

I regret, however, to have to record the much lamented decease of our capable junior clerk, Miss Beatrice Swann (27th October, 1915). Miss D. Bousfield was appointed in her place during the period of the War.

The increased work of the School Clinic has made it a year of very hard work for the School Nurses and Clerks. Again we have to express our gratitude to the Teachers for their co-operation. We should be still more grateful if we could receive the notifications of sickness amongst school children more promptly from some Head Teachers, and if the Regulations in regard thereto and the Rules of the School Clinic could be more considerably followed much clerical work and stationery and some friction would be saved thereby.

The School Attendance Officers continue to be closely associated with the work. Overlapping of their work and that of the school nurses has been avoided by the weekly lists sent to them from the School Clinic, and also by their periodical visits to the Medical Inspection Office. The weekly lists contain the names and particulars of (a) the children in each attendance officer's district who have been excluded from, or re-admitted to, school, by or through the School Medical Department; and (b) obstinate cases of children excluded from school on account of suspected physical defects or disease who fail to furnish a medical certificate or who do not attend the Clinic for medical supervision or treatment as required, or whose treatment is obviously being neglected by their parents or guardians. The cases involved in such lists who were thus referred to the attendance officers, through the Secretary to the Education Committee during 1915 numbered 6,085.

The figures cover almost all the *troublesome* cases we have to do with, and many of these have to be referred under this heading several times. As a rule these are the children most in need of Clinic treatment, and their neglect to attend is in great measure due to the ignorance or indifference of the parents or truancy of the child. The school nurse visits the home before the case is referred to the above officers.

In the clerical work of the Office of the School Medical Department, situated at No. 24, St. Saviourgate, the Card System is increasingly employed as being most serviceable and economical, and a complete series of forms and cards is in vogue in the inter-communications between the School Medical Service and the schools, parents, managers, attendance officers, etc.

THE WORK AND METHODS OF MEDICAL INSPECTION OF THE SCHOOL CHILDREN.

During the year the former requirements of the Board of Education as to the medical inspection of "entrants" and "leavers" were carried out as far as possible and four age-periods, viz., the sixth, seventh, thirteenth and fourteenth years were medically inspected and scheduled; 739 children inspected were between 5 and 7 years of age, and 847 were between 12 and 14 years of age. The annual inspection of the children in the Special Schools was carried out. All the children not inspected between 12 and 13 were inspected in their fourteenth year.

The number of scholars thus inspected and scheduled was 1,586, this being more than one-ninth of the total average attendance at all ages :—

	Boys.	Girls.	Total.	
"Entrants," <i>i.e.</i> , children in their 6th and 7th years	353	386	739	} 1,586
"Leavers," <i>i.e.</i> , children in their 13th and 14th years	447	400	847	
Children at "Special" School (boys only) ..	46	—	46	
„ at "Open-air" School	35	18	53	
Total children inspected each year with the percentages of total children in the schools :—				

				Per cent.
Year	1910	..	2,206	.. 15·4
"	1911	..	4,152	.. 29·1
"	1912	..	3,240	.. 22·7
"	1913	..	2,758	.. 19·2
"	1914	..	2,264	.. 15·8
"	1915	..	1,586	.. 10·8

(For particulars, see the Tables in the Appendix and the Sections on Special Schools).

Owing to the limitations of the medical staff, it has been impossible to carry out the inspection of the "entrants" and "leavers" at all the schools. Those omitted will be taken first in 1916.

A few days prior to the commencement of Medical Inspection at each school, advice notices are invariably sent to the parents of children coming within the age-periods to be inspected, whose names and addresses are furnished by the Head Teachers.

Total number of advice notices sent	1,789
" " parents present at medical inspection ..	361
Percentage of parents present at medical inspection ..	22·7

(For full particulars, see Table A in the Appendix).

The percentages of parents or guardians who were present at the medical inspection of their children in previous years were as follows :—

1914—32·5 ;	1913—28·9 ;	1912—29·2 ;	1911—25·6 ;
1910—31 ;	1909—33 ;	1908—20·6.	

The Schedule of the Board of Education.—No alterations have been made in the Board's Schedule, but the following additions are still retained :—

Chest Girth.—This is only noted in special cases ;

Vaccination Marks.—Their number is recorded if observed ; no further action whatever is taken.

85·1 per cent. of the children scheduled in 1915 bore well-defined vaccination marks, as compared with 85·8 per cent. in 1914 and 90 per cent. in 1910.

Number of Visits paid to the Schools and Departments.—

Visits to schools paid by the Assistant School Medical Officer:—

For the purpose of medical inspection of scholars ..	III	
Special visits in connection with threatened outbreaks of infectious disease, suspicious cases amongst the children, sanitation and equipment of schools, etc.		Carried out by the S.M.O. and School Nurses as required.

Tabular statement of work done by the School Nurses:—

<i>At Homes.</i>	Nurse Simpson. Visits.	Nurse Grant. Visits.	Total.
Infectious Diseases notified by Head Teachers ..	820	900	1,720
Other Diseases notified by Head Teachers ..	1,608	992	2,600
"Following-up" Defects	208	264	472
Re Medical History	—	29	29
Re Domestic Conditions	—	26	26
Notifications by Parents of Ailing Children ..	65	113	178
Special Clinic cases	203	608	811
Infectious Cases Convalescent	85	86	171
Physically Defective Children not in attendance at school	4	3	7
<i>At Schools.</i>			
Re Medical Inspection	19	28	47
Assisting School Medical Officer	38½ days	31 days	69½
Inspecting for Ringworm and Verminous conditions	15½ "	18 "	33½
Re Infectious and Contagious Diseases and Ailing Children	85 visits	54 visits	139
Open-air School	30 "	—	30
Re other matters	70 "	50 "	120
<i>Clinic.</i>			
General	41½ days	46 days	87½
Treatment	12½ "	12 "	24½
Dental	26 "	36½ "	62½
<i>Cleansing Station.</i>			
Cleansing Children (Sect. 122) Number of children	—	4	4
Time	—	1 day	1 day
Number of Swabs taken from throats of children on account of suspected Diphtheria	12	85	97

During the year Inspection was in all cases carried out on the school premises.

From an administrative point of view it proved very inconvenient that some of the schools have had to be given up for occupation as Military billets during the past two winters, with the consequence that some schools have had to share the same premises at different parts of the day, and some have had to be divided in two or more separate buildings.

THE PHYSICAL CONDITION OF THE YORK ELEMENTARY SCHOOL CHILDREN.

The Revelations of Medical Inspection in 1915.

The following Table compares the principal percentages of defective conditions covered by the Board of Education's Table 2 (see Appendix A) :—

	CITY OF YORK (Percentages).			*Aver- ages of Board of Education.
	1915.	1914.	1913.	
Unsatisfactory Clothing	5.8	8.9	11.0	—
„ Footgear	8.6	8.9	11.9	—
Verminous Hair	13.7	15.7	12.4	—
Dirty or Verminous Body	10.8	9.0	3.3	—
Ringworm (Scalp and Body)	0.6	0.12	0.23	—
Impetigo	0.4	0.6	0.7	—
Other Skin Diseases	1.3	1.3	1.4	—
Malnutrition	11.7	10.7	8.3	10
Mouth Breathers	5.4	5.6	3.2	—
Adenoids (marked)	1.3	1.8	1.0	3
Tonsils (markedly enlarged)	4.1	3.7	6.7	—
External Eye Disease	1.5	1.5	1.2	—
Otorrhea (Discharging Ears)	0.6	1.3	0.4	3
Heart Disease (Organic)	1.2	1.7	0.3	1
Anæmia	0.3	0.9	0.1	—
Bronchial Diseases	7.4	5.5	1.3	—
Nervous Diseases	0.4	1.0	1.1	—
Rickets	0.9	0.3	1.7	—
Deformities	3.7	3.0	2.3	—
Tuberculosis (all forms)	0.12	0.20	0.33	2
Defective Speech	2.8	2.5	1.3	—
Mentally Dull or Backward	17.5	12.8	21.7	—
„ Defective (all grades)	0.2	0.3	0.2	—
Defective Vision	17.8	22.9	17.0	10
Squint	1.7	1.7	1.9	—
Defective Hearing	2.7	1.5	1.2	5

* Annual Report, 1913 :—“ The following percentages indicate the general position among elementary school children ” :—

“ Such a statement must be used with care and discretion, as it can at most only represent an approximation to accuracy.”

It is satisfactory to note the improving percentages as regards unsatisfactory clothing and footgear, but it is disappointing that those concerning dirty and verminous conditions and malnutrition do not come out well. With regard to those and some of the other percentages, however, it is necessary again

to take into consideration (1) that as the general conditions as to cleanliness, clothing, etc., improve, the standard of the observer also rises subconsciously; (2) since the outbreak of War in August, 1914, we have had an actual change of observer (Assistant School Medical Officer); (3) as to verminous conditions and the incessant battle therewith, fresh sources of contagion are constantly being imported into the schools by new pupils; there is the factor of inadequacy of some of our school cloakrooms; and, in this connection, as well also as regards the maintenance of normal nutrition, our observations lead us to fear that one effect of the anxieties and general upset caused by the war has been a general slackening of effort on the part of many mothers in the rearing of their young children, as witness the increased infant mortality.

Most marked in recent years has been the great improvement in the prevalence of Ringworm; this is to the credit of the School Clinic, but the disease is a very ubiquitous foe and demands unceasing efforts to keep it in check. The above Table relates partly to new pupils, and, therefore, to new importations of disease; Table B, in the Appendix B, demonstrates how successfully we continue to contend with this disease throughout the Schools. During each year all the children in the schools who had not been medically inspected were examined with a view to *the detection of Ringworm and Verminous Conditions (Nits and Lice.)* Table B gives the result of the investigation, and, for comparison, the results of similar investigations during previous years are also inserted.

Printed leaflets regarding the prevention and cure of several of the above conditions are freely distributed to parents.

Our former Tables 4, 5, 9 and 10 have been omitted in this Report as their contents are sufficiently covered by the Board of Education's Table 2 (in Appendix A) and in the text; Tables 7 and 8 are omitted because the facts set forth thereby have probably been sufficiently emphasised in our previous Reports, and along with those in No. 12, are summarised in the text of this Report.

Three cases of suspected Heart Disease were referred by Head Teachers to the School Medical Officer during 1915 for advice as to curriculum and physical exercises and games.

Thirty-three cases of Squint were successfully rectified.

Otorrhea.—During the year 81 children suffering from Otorrhea of one or both ears were treated or supervised at the Clinic, and the number of those who were still under treatment at the end of the year amounted to 37.

Stammering.—The long-proposed commencement of special classes for children afflicted with Stammering and other forms of defective speech has again been deferred, much to the regret of the School Medical Service, and notwithstanding a report on the subject which I issued in September embodying the results of special enquiries made as to the numbers of such pupils in the York Elementary Schools, and as to the experience and cost of special classes in other towns. The replies from most of these towns were decidedly encouraging, although it was admitted that the work had its difficulties and disappointments; the costs were small, consisting chiefly in the employment of a specially trained teacher.

The totals of afflicted children returned by the Head Teachers of the York Elementary Schools may be briefly stated as follows:—

		Upper Schools.	Infant Schools.	Totals.
Stammering, or Stuttering	..	97	35	132
Lisping, marked ..	..	13	3	16
Other defects of speech	..	68	35	103
		<hr/>	<hr/>	<hr/>
Boys	.. .. .	150	58	208
Girls	.. .. .	49	32	81
				<hr/>
Total, all forms, marked and slight = 289				
				<hr/>

It is proposed to make a detailed examination of these cases during 1916, in order to learn more about the exact character of their defect and the needs for this branch of special teaching; also to seek a teacher who will volunteer to be trained for this work.

The Vision of the Children BETWEEN 12 AND 14 YEARS OF AGE, who have been medically inspected during the year, was tested by means of Snellen's Test Types at a distance of 20 feet, and, as far as possible, this test is carried out in the forenoon, advantage thus being taken of the better lighted portion of the day. Artificial light is only used under exceptional circumstances.

The results of the vision testing are stated in Appendix A, Table 2.

83.3 per cent. of the boys, and 81.0 per cent. of the girls, have what is termed "good" vision; 16.7 per cent. of boys and 19.0 per cent. of girls had more or less defective vision; these were referred for attention at the School Clinic by the Ophthalmic Assistant School Medical Officer. Detailed account of the results of his work is given under the heading "The School Clinic."

The relationship between efficiency of eyesight and efficiency of school work is obvious, and, therefore, attention to defects of vision is a most important part of the school medical service. Markedly defective vision is also not without its bearing upon the general health.

Defective Teeth.—In the 847 senior children inspected by the Assistant School Medical Officer during the year 1915 the percentages of children with one, two, or three defective teeth were

60.4 for boys and 59.7 for girls,
as compared with the averages for the whole of the three previous years of

54.3 for boys and 56.1 for girls.

The percentages in 1915 of children with four or more defective teeth were

17.7 for boys and 19.6 for girls,
as compared with the averages for the whole of the three previous years of

26.4 for boys and 23.4 for girls.

The average percentage of "Injurious Decay of the Teeth" in the Elementary Schools of England and Wales is stated by the Chief Medical Officer of the Board of Education as about 50.

We believe that improvement is sure to follow the sale of tooth-brushes in the schools, the teaching of dental hygiene in the schools, the advice given during the routine inspections and at the Clinic, the work of the Dentist and of the School Nurses. Our Dental Clinic is now busily engaged in the preservation of the teeth of hundreds of children commencing school life. These children will be followed up through school life, so that they shall leave school when the time comes with a sound mouth of teeth. In the meantime a campaign of teaching of dental hygiene must be pursued unremittingly. During the past year Mr. Constant has completed a most thorough investigation into the condition of the teeth in ten thousand of the elementary school children, and his interesting Report thereon is appended to this Report.

Tuberculosis.—Cases of Tuberculosis amongst city children between 5 and 15 years of age, which were notified to the Medical Officer of Health during the year 1915, under the “Public Health (Tuberculosis) Regulations, 1912,” of the Local Government Board. (See also Appendix A., Table 2):—

		Males.	Females.	Total.
Tuberculosis of Lungs (Phthisis)*	..	13	7	20
„ of Mediastinal Glands	..	—	1	1
„ of Tracheo-Bronchial Glands	..	1	—	1
„ of Submaxillary Glands	..	1	—	1
„ of Neck Glands	..	7	7	14
„ of Meninges (Meningitis)	..	—	1	1
„ of Abdominal Glands	..	3	—	3
„ of Intestines	..	1	—	1
„ of Skin	..	3	—	3
„ of Hip Joint	..	2	2	4
„ of Other Joints	..	1	1	2
„ of Finger	..	2	—	2
Totals	..	34	19	33
				53

* Two of these cases had also developed other forms of tuberculosis.

This total is equivalent to about 0.45 per cent. of total elementary school children in York, which appears to be our average rate.* Of these total notifications, 6 of the lung cases and 7 of “Other Tubercular” cases were sent in to the Medical Officer of Health by the Tuberculosis Officer, and 4 by the Assistant School Medical Officer.

* The Board of Education’s average percentage for England and Wales is 2; the standard of the observers varies very considerably however.

Three cases of Phthisis and 14 cases of Non-Pulmonary Tuberculosis were also notified amongst children under five years of age.

Total children excluded from school attendance during whole or part of year, 40.

Total deaths of children at ages 5—15 in York in 1915:—

			Total.
Pulmonary Tuberculosis	..	..	7
Non-Pulmonary „	..	..	9

There is much need for some system of standard classification of *child tuberculosis* on broad lines, such as the following schemes suggested by our Tuberculosis Officer, Dr. Bell Ferguson :—

Pulmonary Tuberculosis :—

(1) Definite clinical pulmonary tuberculosis ;

(2) Indefinite pulmonary tuberculosis—children with the following signs and symptoms suggestive of infection of the tracheo-bronchial glands :—inadequate increase in weight, languor, anorexia, irritability, “growing pains,” persistent dry cough, accompanied by dilated chest-veins, projecting scapulæ, interscapular dulness, and possibly harsh breathing in the nipple regions. “Pigeon-breast” or flatness or hollowness of chest give rise to suspicion.

Other forms of Tuberculosis :—

(1) Clinically definite forms.

(2) Indefinite but highly suspicious forms, such as operation scars in the neighbourhood of glands, small enlargements of cervical and supra-clavicular glands, scrofulosis in general, the latter term including scrofuloderma, lupus-like conditions, recurrent phlyctenules and chronic blepharitis, corneal ulcers, tuberculides, lichen, etc.

The following provision has been made for the treatment of tubercular cases occurring amongst city school children :—

(a) All child cases are referred to the York Tuberculosis Dispensary as a clearing house, for diagnosis in doubtful cases, for supervision, for the purposes of clinical record, and for tuberculin or other treatment when required.

(b) Children of school age, fit or likely to become fit to receive education, even in modified form, are referred to the temporary Open-Air School at No. 11, Castlegate, where they undoubtedly benefit.

			Boys.	Girls.
Admitted to the Class in 1915	..	..	30	19
Discharged	..	..	21	10
On books December 31st, 1915	..	..	14	11

The after-care of these children is now entrusted to the Tuberculosis Crusade Committee.

(c) Cases of tubercular disease of the lungs or of other organs, if suitable for open-air treatment, are referred to the open-air ward and shelters for tubercular patients at the Isolation Hospital, Yearsley Bridge.

Eighteen cases of children of school age were so referred by the Tuberculosis Officer during 1915.

(d) Cases requiring surgical treatment are sent into the York County Hospital, at the cost of the Corporation Health Committee.

Ten cases of children of school age were so referred by the Tuberculosis Officer during 1915.

(e) The provision of meals for necessitous children, which has been generously carried out in the city, has also an important bearing upon the salvation of these children and upon the prevention of the occurrence of new cases of the disease.

We are disappointed that the splendid scheme in hand for a joint school for mentally defective and physically defective and delicate children, to be erected on the charming site at Fulford Field House, has not yet advanced any further.

THE OCCURRENCE OF INFECTIOUS OR CONTAGIOUS DISEASES AMONGST THE SCHOOL CHILDREN

and the action taken as to detection and prevention thereof.

Cases of infectious disease notifiable under the Infectious Diseases (Notification) Acts, 1889 and 1899, occurring amongst the school children are directly controlled by the Public Health Department, and home contacts are excluded from school by that department.

Cases of the infectious diseases not notifiable by law, viz. :— Measles, Whooping Cough, Mumps, Chickenpox, Ringworm, Impetigo, etc., are notified to the School Medical Officer by the Head Teachers under "The Regulations regarding Contagious or Communicable Diseases in the York Public Elementary Schools," compiled by your Medical Officer of Health in 1906, and revised and re-issued in 1913.

During the year 1915 the most prevalent infectious diseases have been Measles, Whooping Cough, Chickenpox, "Influenza" and "Ophthalmia." Impetigo was still very prevalent, a very ubiquitous, contagious disease of uncleanness. Mumps and Diphtheria were very much less prevalent than in preceding years.

The following tabular statement gives the numbers of school children notified to the Medical Officer of Health (Scarlet Fever and Diphtheria), and to the Assistant School Medical Officer (Measles, Whooping Cough and Chickenpox), for each of the past seven years:—

	Scarlet Fever.	Diphtheria.	Measles.	Whooping Cough.	Chickenpox.	Mumps
1909 ..	67	47	352	125	229	32
1910 ..	98	42	737	309	244	70
1911 ..	187	25	267	277	167	760
1912 ..	215	56	1,158	69	347	105
1913 ..	84	54	119	278	369	124
1914 ..	181	97	664	247	109	755
1915 ..	120	48	505	220	169	61

Scarlet Fever.—During 1915, the prevalence was not marked, 47 school cases occurring in the first six months, and 73 in the second six months of the year; 22 "missed" cases of Scarlet Fever were discovered by the School Nurses. No particular school or department was affected, except South Bank Temporary School (13 cases).

The cases were distributed as follows:—

		Primary cases.	Secondary cases.
7 years of age and under 7	Attending City Public Infants' Schools	31	5
	Not attending School	22	18
		53	23
At ages 7—14	Attending City Public Element- ary Schools (Upper Depts.) ..	66	18

Diphtheria.—Only 20 of these cases occurred during the first half of the year, and 28 during the second half, and they were distributed as follows :—

		Primary cases.	Secondary cases.
7 years of age and under 7	Attending City Public Infants' Schools	17	3
	Not attending School	7	1
		24	4
At ages 7—14	Attending City Public Element- ary Schools (Upper Depts.) ..	26	2

Ten cases attended Shipton Street Infants' School—the last of the cases of the 1914 outbreak.

Measles.—An epidemic of Measles commenced in July, and pursued a somewhat erratic course to the end of the year, and was continuing in the early months of the new year; 86 per cent. of the cases of Measles occurred in the second half of the year; 87·7 per cent. in the Infant Schools.

In the blue book Memorandum on "Closure of and Exclusion from School," issued in 1909, and compiled by the Chief Medical Officers of the Local Government Board and the Board of Education, the following direction was given in regard to Measles :—

"If Measles is introduced into a school, the first crop of secondary cases will occur about 12 days after the original case, and in 12 days more there will be a second crop comprising the majority of the unprotected children." In view of this experience a class closure of short duration after the occurrence of *the first cases of Measles* in the class is recommended, the class being closed on the ninth day after the sickening of the first child, for a period of five days only.

I believe these suggestions to be sensible and scientific and entirely reasonable in the prevention of the spread of this disease. The above rule is one which involves a minimum of exclusion from school and of school closure, but it requires that the epidemic should be followed very closely, and to that purpose

the School Nurses and I have devoted dozens of hours during this epidemic, with the result that I sincerely believe we have done a good deal actually to prevent the spread of the disease, and to reduce its mortality, and most certainly we have retarded the progress of the epidemic, and thus enabled us to give more individual attention to cases. Acting upon the above-mentioned system, the following classes and schools have been closed, mostly for the period of one week, in order to prevent the admission of second crops of cases :—

LIST OF SCHOOLS CLOSED ON ACCOUNT OF MEASLES
DURING 1915.

Name of School.	Date closed.	Until.
	1915	1915
Poppleton Road, Class II., Infants' Dept.	Sept. 6th.	Sept. 13th.
St. Barnabas', Infants' Dept.	Sept. 6th.	Sept. 13th.
Park Grove, Infants' Dept.	Sept. 6th.	Sept. 13th.
St. Margaret's, Class II., Infants' Dept.	Sept. 18th.	Sept. 27th.
Castlegate, Class I., Infants' Dept. . .	Sept. 27th.	Oct. 4th.
Poppleton Road, Babies' Class	Oct. 1st.	Oct. 18th.
Clifton, Infants' Dept.	Oct. 25th.	Nov. 1st.
South Bank, Class VI., Infants' Dept. .	Nov. 5th.	Nov. 15th.
Convent Day School, Infants' Dept. . .	Nov. 10th.	Nov. 22nd.
St. Thomas', Class III., Infants' Dept.	Nov. 16th.	Nov. 23rd.
St. Thomas', Infants' Dept.	Nov. 29th.	Dec. 6th.
English Martyrs', Infants' Dept. . . .	Nov. 23rd.	Nov. 29th.
		1916
St. Paul's, Infants' Dept.	Dec. 10th.	Jan. 10th.
Micklegate Bar, Infants' Dept.	Dec. 17th.	Jan. 10th.

With regard to the rapid spread of Measles in Infant Schools, the School Medical Service regrets that infants under five years of age are still universally admitted to our schools. If only the children of those mothers who were obliged to go out to work were admitted to those schools, the evil would be very much reduced ; even those children would be better collected together in nursery schools, of very limited capacity—say 20 or 30 per school. There is no question as to the happiness and the care taken of the infants in our schools, but however watchful the Head Teacher and her assistants may be, their efforts are from time to time absolutely checkmated by the insidious and rapid attacks made upon infant schools by such epidemic diseases as Measles.

Whooping Cough.—The number of cases of this disease notified by the Head Teachers during the year was nearly as large as in 1914; 57 per cent. occurred in the second half of the year; 87·7 of the notifications were from the Infants' Departments. The Bootham Ward Schools were those chiefly affected.

There was a large number of indefinite cases of "Influenza" and "Ophthalmia," which were investigated by the School Nurses. Some of the latter cases were treated at the School Clinic.

CLEANSING NOTICES UNDER SECTION 122 OF THE CHILDREN ACT, 1908.—The following is an account of the work done in this connection :—

Number of cleansing notices served on parents by the Education Department	33
Number of children referred to the Medical Officer of Health by the Assistant School Medical Officer since January 1st, 1915	33
Number of children cleansed at home	31
Number of schools affected	12

The Chief Inspector of Nuisances, Mr. Drummond, has kindly furnished the following data in connection with these cases :—

Number of houses inspected 55, of which were :—	
Very filthy	4
Filthy	7
Moderately clean	44
Number of houses where bedding was removed for steam disinfection	21
Number of houses where bedding was not removed owing to bedding being clean	34

THE " FOLLOWING-UP " AND MEDICAL TREATMENT OF THE PHYSICAL DEFECTS IN THE SCHOOL CHILDREN.

"Following-Up."—Whatever *defects* are *discovered upon* medical inspection an advice note is sent to the parents, and verbal efforts of persuasion by the Assistant School Medical Officer, School Nurses, Managers, Care Committees, and others follow. Every case is given ample opportunity to consult its own chosen medical adviser.

Failing the above-mentioned efforts of persuasion there are the levers of exclusion from school in suitable cases, the pressure of the Medical or School Attendance Sub-Committees of the Education Committee, and, in the last resort, proceedings in the Police Court under the Cruelty or Neglect Section (Section 12) of the Children Act of 1908.

(See Table 4, Appendix A, as to results of treatment and following-up.)

Ameliorative measures do not necessarily involve the child being excluded from school attendance; there is no need for that unless the child's condition is contagious, or such as to render it absolutely unfit and unable to benefit educationally.

During the year 67 children were reported to the Secretary of the Education Committee for irregularity of attendance at the Clinic; in twelve cases strong warnings were sent to the parents; in eight cases parents were interviewed by a Sub-Committee, and two children were referred to the magistrates; one girl was sent to an Industrial School and one case was fined 2s. 6d.

Teachers are requested not to wait for the routine inspections before calling the attention of the School Medical Officers to children obviously suffering from ill-health, and there is considerable, sometimes overwhelming, activity on their part in this direction.

Report of St. Denys' Care Committee:—

April, 1916.

"The work of this Committee has been somewhat interfered with by the many calls for voluntary work in connection with the war, nevertheless, much sound and valuable work has been accomplished, and the parents welcome the visits of the helpers. The Boot Club, which was commenced in 1910, continues to be a success; the number of members is 36; the weekly contributions average 5s. 6d., and no less than 46 pairs of boots were supplied during last year.

The Care Committee have noted with considerable satisfaction the effective and sympathetic treatment of our scholars at the Clinic."

(Signed),

F. BIRKETT,

Hon. Sec. (pro. tem.)

Report of Bilton Street School Care Committee :—

April, 1916.

" It is with great pleasure that I am able to write a satisfactory report on the working of the School Care Committee. Though no more formal meetings have been held, a good deal of unseen work has been done by the different members of the Committee, and careful enquiries have been made into all cases submitted for visitation. In this way, the Rev. R. G. Pyne and Miss Pyne have obtained valuable information which in some instances has led to practical results.

Though not strictly connected with the work of the Care Committee, the system of School Bathing in vogue is a feature worthy of notice as bearing on health and cleanliness, and consequently on the future welfare of the children. As mentioned in previous reports, hot baths are provided daily for all who desire them, supervision being exercised by a male and female attendant on alternate days. No compulsion is exercised, neither is it needed, no less than 4,140 baths having been voluntary taken during the year ending March 31st.

Excellent results cannot fail to follow the public-spirited action on the part of the School Managers."

(Signed),

GEO. J. JENKINSON.

Medical Treatment.—The facilities at the disposal of ailing or defective school children may now be stated as follows :—

- (1) The General School Clinic ;
- (2) The Ophthalmic School Clinic ;
- (3) The Dental School Clinic ;
- (4) Intractable ringworm of the scalp is X-rayed by the specialist at the County Hospital, by arrangement with the Education Committee.
(See section of this Report on " The School Clinic ") ;
- (5) The Tuberculosis Dispensary ;
- (6) The Open-Air Class and the Open-Air Ward.
- (7) The York Dispensary, Duncombe Place, is available for the treatment of suitable cases ;
- (8) The York County Hospital is available for those cases, both medical and surgical, which require " hospital treatment," provided the patient presents the necessary " hospital note."

THE SCHOOL CLINIC.

The School Clinic now forms a well-elaborated and established addendum to Medical Inspection. Indeed, it may be regarded as the centre of the whole system. Besides a General Inspection Clinic for the supervision of children who are unfit to be in attendance at school, and a Treatment Clinic for children suffering from the so-called "minor" ailments (such as external eye diseases, impetigo, "eczema," discharging ears, etc.) there are the Dental and Ophthalmic Departments.

Sessions of Clinics and Attendances in 1915.

	General Inspection.	Miscellaneous Treatment.	Ophthalmic.	Dental.	Totals for :—	
					1914.	1915.
Number of Clinic Sessions held	82	212	36	257	629	587
Average attendance per Session	44.3	34.3	16.0	14.1	18.6	25.7
Number of children who attended the Clinic ...	1,345	364	267	1,479	3,395	3,455
Number of attendances at the Clinic	3,634	7,275	579	3,643	11,729	15,131

The number of children who attended the "Inspection," and "Miscellaneous Treatment" Clinics during the year, the number of attendances made, and the number of children still in attendance on the 31st December, 1915 :—

	January to Midsummer.		Midsummer to December 31st.		Totals.	
	1914	1915	1914	1915	1914	1915
Number of children who attended	1,179	987	958	722	2,137	1,709
Number of attendances	4,344	5,668	3,607	5,241	7,951	10,909
Number of children still attending	88	202	146	204	146	204

The following tabular statement classifies the children according to the various diseases and defects from which they were suffering:—

	January —July.	August— December	Children who were still attending the Clinic on 31st December, 1915 with the undermentioned defects.	Totals.	
	1915.	1915.		1914.	1915.
Scalp Ringworm	81	92	50	123	173
Body Ringworm	55	27	4	74	82
Pediculosis (Lice and Nits) ..	42	48	4	94	90
Impetigo ("Scab-head") ..	189	176	34	210	365
Eczema	59	37	6	261	96
Contagious Ophthalmia ..	121	93	20	91	214
Blepharitis ("Sore Eyelids")	21	20	7	45	41
Scabies (Itch)	18	18	7	12	36
Abscess	6	10	5	16	16
Otorrhœa (Discharging Ears)	70	57	42	91	127
Debility	19	11	..	46	30
Defective Vision and Squint	50	14	1	185	64
Various	365	362	38	739	727
Total defects	1,096	965	218	1,987	2,061

In most of the above cases parents were as usual given reasonable opportunity to obtain treatment from their own medical attendant or other sources, failing which they were requested and persuaded to send their children to the School Clinic.

Non-routine Cases.

During the Medical inspection of the children at the schools, a number of non-routine children were referred to the Inspecting Medical Officer by the Head Teachers on account of suspected diseases or defects. They are called "non-routine" because they were outside the age-periods which were being inspected and scheduled.

The following is a tabular statement of the non-routine children thus inspected, together with the diseases from which they were found to be suffering :—

	Upper Schools.		Infant Schools.		Totals.
	Boys.	Girls.	Boys.	Girls.	
Total number of children examined ..	97	94	20	3	214
Defective Vision (including Squint) ..	31	26	—	1	58
Defective Teeth	85	86	19	2	192
Enlarged Tonsils	13	10	4	1	28
Adenoids	1	—	—	—	1
Defective Hearing	2	6	—	—	8
Defective Speech	9	4	1	—	14
Mentally Defective	1	—	—	—	1
Heart Disease	2	2	1	—	5
Various	20	22	4	2	48
Total defects	164	156	29	6	355

In most of these cases notes of advice and leaflets of instruction were sent to the parents.

Thirty-five children with defective vision have already been treated ; the remainder we have not been able to persuade to attend.

Fifty-nine children with defective teeth have been treated.

The mentally defective boy was transferred to Holgate Bridge School.

Four children with defective hearing and two cases of heart disease received medical attention.

Cases of adenoids and enlarged tonsils were referred for treatment to their own medical attendants, or to the County Hospital or Dispensary.

Scalp Ringworm (Tinea Tonsurans).

91 new cases of ringworm of the scalp were discovered amongst the children attending the elementary schools, and the total number of cases dealt with during the year was 120, as follows :—

Amongst children notified by Head Teachers on						
Forms A and C	59					
Amongst children medically inspected	9					
Amongst non-routine children	6				91	
Amongst children brought to the clinic by parents, etc.	17					
Carried over from 1914 (29 children who were still under treatment)					29	
Total						120

70 of the above children were re-admitted to school during 1915 as cured, as follows :—

After X-ray treatment at Hospital	28
„ private treatment	13
„ treatment at Clinic	21
„ treatment from other sources	8
Total re-admitted to school as cured	70

The remaining 50 children were still in receipt of treatment at the close of 1915, 5 of whom were re-admitted to school early in 1916.

The ages of the above 120 children were as follows :—

Age-periods.	No. of Children.
Under 5 years of age	11
5-7	42
7-11	47
11-14	20
Total	120

The Dental Clinic.

In July, 1912, a well-qualified local Dentist (Mr. T. E. Constant, M.R.C.S., L.D.S.), was appointed as Dental Assistant School Medical Officer, “to attend to such cases as have not been dealt with by private practitioners within one or two months after reference of the case to the attention of the parents.” He records full notes of the defective conditions, and of the exact character of the treatment carried out, and these records (on the card system) are kept at the School Clinic. A School Nurse is usually in attendance.

It was decided that from April 1st, 1914, the Dental Clinic be expanded, so that our School Dentist give at least fifteen hours per week instead of six, the stipend to be increased

accordingly from £100 per annum to £250. The children of five to eight years of age form the special care of the Clinic.

Mr. Constant and his Assistant are carrying out the policy, wisely desired by the Board of Education, of saving the teeth at the critical period of the commencement of eruption of the permanent or second teeth, by the methods of conservative (or preservative) dentistry. Children with defective teeth discovered in the school inspections are persuaded to come to the School Clinic if they do not go to their own dentists, which but few do.

Excellent tooth-brushes have been obtained by the Local Education Authority in quantities by contract, and sold to the children at the schools at cost price, viz., 2d. The Head Teachers have been requested to push the sale of the tooth-brushes in the schools, and also to give a lesson on the use of the tooth-brush in the early part of each term, so that all new pupils will receive such a lesson early in their school career, and also so as to reiterate such much-needed instruction to the older pupils. There is no need for the children ordinarily to use any tooth-paste or powder; brushing with plain warm or cold water is sufficient if done thoroughly.

Dental Work done at the School Clinic during the year 1915.

The number of Clinics held during the year was 257.

The total number of children referred to the Dental Clinic was 1,004 (438 boys and 566 girls). The following is an account of the number of those who attended the Clinic:—

Routine children (<i>i.e.</i> , those who had been inspected and scheduled by the Dentist at the schools) ..	476
*“ Non-routine ” children	1,003
	<hr/>
	1,479

*“ Non-routine ” cases are those who have otherwise been discovered, or referred by Head Teachers or brought by parents on their own initiative, etc.

Number of children who were fully treated ..	420
Number of children partially treated	889
Number of children inspected only	—
Number of children who refused treatment ..	170

Total = 1,479

Dental work done during the year:—

Inspections (at Schools and at Clinic)	7,314
Fillings	1,019
Dressings	2,485
Regulations	586
Extractions	2,209

(*Dressings*—This is one of the most important operations in connection with dental work, and includes scaling, “killing” of nerves, all preparations of teeth for filling, and various treatment of the gums).

The Ophthalmic Clinic.

In July, 1912, an expert local Ophthalmic Surgeon was appointed as Ophthalmic Assistant School Medical Officer, to attend to such cases as have not been dealt with by private practitioners, or by the medical charities, within one month after reference of the case to the attention of the parents, and to attend to such cases as cannot be dealt with by the Assistant School Medical Officer. He is appointed for a term of two years, and paid a retaining fee of ten guineas per annum, plus a uniform fixed fee of five shillings per case examined. He records full notes of the defective condition, and of the character of the spectacles or other treatment prescribed, and these records are kept at the Clinic.

The Education Committee made a new contract from September 1st, 1915, for twelve months, with Messrs. Charles Ledsham & Co., Stonegate, York, for the supply of spectacles as prescribed by the Ophthalmic Surgeon for the elementary school children. The Education Committee pays the contractor for the spectacles on a fixed scale of charges ranging from 2/- to 3/3 per pair for ordinary glasses, and 4/- and 5/6 for extreme cases.

In November, 1913, the Education Committee directed that all children should have the spectacles prescribed by the Ophthalmic Surgeon supplied to them immediately they were ready, provided the child's parent or guardian signed an acknowledgment form, the cost of the spectacles being paid in small instalments. This arrangement is working satisfactorily.

Cases of Squint and other cases which need operation are referred by the Ophthalmic Medical Officer to his own care at the York County Hospital.

Notes are made on a special card index which secures that all cases of myopia and other conditions in which it is advisable that repeated examination shall be made, are automatically brought up at intervals.

In two or three previous reports we have spoken of the desirability of establishing special classes here and there for myopic (very short-sighted) children, but the matter has so far not made any substantial progress.

The following children have been referred to the Ophthalmic Assistant School Medical Officer on account of defective vision during 1915 :—

ROUTINE CASES—

	Boys.	Girls.	Total.
5—7 years of age	4	5	9
12—14 years of age	31	34	65

NON-ROUTINE CASES—

	Boys.	Girls.	Total.
5—7 years of age	20	14	34
8—14 years of age	64	79	143

**Work performed by the Ophthalmic Assistant School Medical Officers (Peter Macdonald, M.D., assisted by G. Wilfred Gostling, M.B.) during the year 1915 :*

Total number of Ophthalmic Clinics held	36
Total number of children seen during the year	267
Total number of attendances of children	579
Number (average) of children who attended each Clinic ..	16.0
Number of children with defective vision referred to Dr. Macdonald :—	
Routine	74
Non-routine	177
Total	251

“ Routine ” cases are those discovered in school during medical inspection.

“ Non-routine ” cases are those who have otherwise been discovered, referred by Head Teachers, or School Managers, or by the County Hospital.

* Dr. Macdonald, having being engaged on military duty since the outbreak of war, found his Clinic work being much interfered with ; upon his suggestion Dr. Gostling was appointed in 1915 to act as his assistant and deputy at the Clinic.

Total children :—

For whom spectacles were prescribed	175
Who were prescribed for otherwise than by spectacles ..	37
Who refused treatment	5
Who accepted examination, but refused to have the spectacles	10*
Whose present spectacles were found to be correct	8
Advised Blind School	1
Still under treatment 31st Dec., 1915	15
Total	251

* These cases were referred to the Committee, and in two cases spectacles were provided gratis.

In addition to the above, two special cases were examined and treated for external eye disease.

Number of cases of Squint examined during 1915	39
Ditto in which glasses were prescribed	29
Ditto in which operation was advised	4

*Particulars of the above 251 Cases.**Exact Defects of Vision :—*

Hypermetropia (long sight)	..	..	53
Hypermetropic Astigmatism	..	..	70
Mixed Astigmatism	..	..	45
Myopia (short sight)	..	..	23
Myopic Astigmatism	..	..	39
			— 230

In combination with these, were 39 cases of Strabismus (Squint) :—

Convergent Strabismus	..	..	36
Alternating	..	..	2
Divergent	..	..	1
			— 39

Other Defects of Visual Apparatus :—

Iritis	..	..	1
Leucomata of Cornea	..	..	4
Corneal Scarring	..	..	4
Spasm (eye strain)	..	..	3
			— 12

During the year prescriptions for spectacles have been issued to the contracting optician as follows :—

Sphericals	..	..	63
Cylindricals	..	..	30
Sphero-Cylindricals	..	..	50
Combinations of these	..	..	32
			—
Total	..	..	175

		£	s.	d.
The total cost of the above glasses was	...	26	1	0
The total amount recovered from parents was	...	21	18	4
		—	—	—
Amount still owing on 31st December, 1915	...	4	2	8

Percentage of costs recovered = 84.1.

In 82 cases the spectacles were paid for in full ;

In 43 cases the spectacles were paid for in full by instalments ;

In 28 cases the spectacles were being paid for by instalments ;

In 2 cases the amount was remitted by the Education Committee ;

In 20 cases no attempt at payment had been made up to the 31st December.

“ The Ophthalmic Assistant School Medical Officer is desirous of again taking the opportunity of the Annual Report to point out one special method by which his services may be of value to the children of York, which, not being obvious,

needs to have attention called to it repeatedly. This is the advice he can give to parents of children with defective sight as to the future career of these children. He takes every opportunity that arises for doing this, and despite the interference caused by the war during the past twelve months in the work of the Ophthalmic Department of the School Clinic, he has many times been able to advise parents on the choice of employment for their children, so far as the condition of their eyes has a bearing on it, and he has persuaded other parents to promise to come to consult him when the question of the employment of their children arises. Obtaining such advice is usually a new and unthought-of idea to parents, and they are generally most grateful to receive it. The opportunities for giving it have, up to now, been those only which have been made by the Ophthalmic Assistant School Medical Officer himself as cases of defective vision have come before him. As he considers that this mode of employing his services is an exceedingly valuable one, he wishes to repeat in this report that he will welcome the application of any parent of a child of school age with defective eyesight to consult him upon what employment it is capable of. He also makes the suggestion that in cases of very defective eyesight the teacher should take any opportunity that may arise of urging the parent to obtain such expert advice either at the School Clinic or elsewhere."

It has been decided by the Education Committee to carry out the medical treatment of children attending City Elementary Schools from districts outside the city boundary and the Board of Guardian's boarded-out children, and a few such cases have attended the Dental Clinic during the year.

Grants received or due from the Board of Education :—

(a) In respect of Medical Inspection or inspection and treatment :—

			£	s.	d.
For year ending March 31st, 1913	...	...	185	18	9
" " " 1914	...	...	516	12	6
" " " 1915	...	...	543	10	3

(b) In respect of Temporary Special School for Mentally Defective Children :—

			£	s.	d.
For year ending March 31st, 1913	...	...	237	8	0
" " " 1914	...	...	224	9	0
" " " 1915	...	...	222	17	0

(c) In respect of Temporary Open-Air School for Physically Defective Children :—

			£	s.	d.
For year ending March 31st, 1915	...	...	65	16	10

THE CARE OF INFANTS UNDER SCHOOL AGE ; SCHOOLS FOR MOTHERS, &c.

This work, more fully described in last year's Annual Report, is of growing importance. It is being carried on by the York Infants' Welfare Association and the Corporation Health Visitors, working in co-operation. This Association receives grant from the Board of Education as a School for Mothers, and it is also the "Maternity Centre" within the scheme of the L.G.B.

The rooms are at No. 22, St. Saviourgate and at No. 74, Stamford Street, Leeman Road. Here, skilled medical practitioners volunteer their services, with the assistance of a trained superintendent (Miss Follows, who now has an Assistant Nurse, Miss M. Swanson), to help poor mothers in numerous ways in securing their own health and the healthy development of their young children. Practical instruction is given in the care of young children, in domestic and personal hygiene, home nursing, the making of clothing, and the numerous little things which comprise so much of home and family comfort and prosperity. The institution serves as a dispensary for the granting of detailed advice to expectant and nursing mothers, and for the young children. The mothers are visited in a friendly and informal manner at their homes. Half-starved mothers receive a good mid-day dinner. There are sewing meetings, and a thrift club, and other detailed means of help.

Grant received :—1913-1914, £66 16s. 7d. 1914-15, £96 os. 6d.

Children between 1 and 5 years of age seen at Infants'

Clinics	176
Total attendances	924
Visited by Miss Follows and Assistant	733 (visits)
Total on the books of the Infants' Clinic	500
Total children visited by Corporation Health Visitors	260

Mothers now often bring up two or three children to the Clinics and these are inspected, and in visiting babies enquiries are also made about the health of the older little ones, whose welfare is being increasingly kept in mind.

By a further circular of the Board of Education (No. 879), dated November 26th, 1914, grants are now payable towards the cost of working day nurseries, voluntary or otherwise, such nurseries being institutions which receive, for care in the day-time, primarily, the infants and children under three years of age (and secondarily, children over three years of age, if urgently required) of mothers who are obliged to go to work

during the day-time, and who cannot leave their children to be properly nursed at home. The Medical Officer of Health has to be satisfied with the day nursery and its work, its arrangements for feeding, sleeping, washing, and obtaining fresh air, and the Matron must be a person of some nursing experience. Such Annual grants are now being paid to the Crèche established by the private charity of the Sisters of St. Vincent de Paul in 1896, in Fishergate, which can receive fifteen to twenty children, and has for some years done a useful and necessary work.

THE SPECIAL SCHOOLS.

Review of action taken as regards Blind, Deaf, and Mentally and Physically Defective Children, under the Special Acts of 1893 and 1899—(Elementary Education (Blind and Deaf Children) Act, 1893), (Elementary Education (Defective and Epileptic Children) Act, 1899.)

There are at present :—

Eleven children at Special Schools for the Deaf and Dumb—seven being at the Doncaster School, three at Boston Spa, and one at Newcastle-upon-Tyne.

Eight children at Special Schools for the Blind—seven of whom are at the York Blind School, and one at Liverpool.

Four epileptics are inmates of residential schools, two at Much Hadham, one at Starnthwaite, and one in the Chalfont Colony.

Forty-seven educable mentally defective boys attend the temporary special school at Holgate Bridge, York, and one is at Hopwell Hall Home, Derby. There is at present no local special provision for the education of educable mentally defective girls under the above-mentioned Act, neither is there any special provision for physically defective children other than tubercular or pre-tubercular children, for whose benefit we have a temporary open-air school at No. 11, Castlegate. We have a number of crippled, delicate and ill-nourished children for whom a larger open-air school would be a great boon.

***The Temporary Special School for Mentally Defective Boys
at Holgate Bridge, York.***

This school is held in a parochial building belonging to St. Paul's Church and continues to carry out excellent work, notwithstanding its limitations.

Total Boys on register, September 30th, 1914 ..	50
Number of boys admitted October 1st, 1914, to September 30th, 1915	6
Number of boys who were removed from the school register October 1st, 1914, to September 30th, 1915 ..	9
Total boys on register September 30th, 1915 ..	47

Reasons for leaving:—

Transferred to ordinary elementary schools (at age 12)	1
Left school for employment (at ages 14—15) ..	3
Left York (at ages 10 and 12)	2
Arrived at age-limit (16)	2
Transferred to Open-Air School	1
Excluded as idiot or imbecile	—
Total	9

Amongst the boys are 15 affected with stammering or other forms of defective speech; 3 with defective hearing; 4 with adenoids. In 8 cases the clothing was very defective.

The children have been mentally and physically examined by the A.S.M.O. during the year. In addition, numerous visits have been paid by the School Medical Officer and the Assistant S.M.O. to see how the school was being conducted.

Number of boys admitted since the commencement of the School to September 30th, 1915	92
„ re-admitted	3
Boys left school in 1912-13 (October to September) ..	16
„ „ „ 1913-14 „ ..	14
„ „ „ 1914-15 „ ..	8
	38

The staff consists of:—A Head Mistress, with two assistant female teachers (one certif., one uncertif.); Manual Instructor (chiefly light woodwork), 2½ hours per week; two women are engaged in connection with the dinners and subsequent kitchen work; bath-attendant (three half-days per week). School-Nurse Simpson visits the homes of the boys, when they are sick or there are other reasons, as required.

Detailed records of the mental and physical condition of the children on admission to the school, of the results of the periodical re-examinations, and of the progress of the children in the experience of the Assistant School Medical Officer and of the Head Mistress, are kept systematically.

Manual occupations constitute a large portion of the curriculum and comprise over 36 different kinds of work ; leather work and strip woodwork have been added during last year ; so also some advances in Montessori methods of teaching and in such constructive " games " as " Meccano." Increasing efforts are being made to get the maximum out of each boy, to develop each one according to his capacities and to stimulate initiative ; class teaching here occupies a secondary place. Again, we deplore the lack of our larger new school.

Some excellent joinering and other manual instruction is being accomplished, and it is now proposed to direct this manual work for the senior boys into the course of wage-earning trade channels, so that the boys should now be taught not only advanced woodwork, but shoe-making and kitchen-gardening, which are the trades in which these children are being found to prosper most.

Mid-day dinner is provided at the school, of which about 25 availed themselves during the year, an average of 74 pennies per week being paid towards the cost ; the remainder (5) have their meals free of cost, on the recommendations of the School Attendance Officers to the Provision of Meals Sub-Committee. The mid-day dinner at the school secures that some of these children, who are very apt to be insufficiently fed at home, if the home be poor or the parents indifferent, do get at least one substantial meal per day. On the occasions of our recent visits to the school we have found the children clean and being supplied with excellent nourishing meals ; the table is covered with a clean white American cloth, and a few green plants or flowers are placed thereon. Proper table manners are taught as part of the curriculum.

About 36 of the boys receive a warm slipper bath at the school every week, under the supervision of a matronly bath attendant.

This school is hardly getting fair play during the War ; every truly defective boy ought to be retained according to the special laws until he is 16, but it has been very difficult to insist upon that in face of the extra demand for boy labour and in the absence of more advanced trade-training ; indeed Dr. Crowley appeared to think we were hardly justified in trying to retain them under the conditions, but under 14 the boys do not acquire the full benefits possible in such a school.

A circular (No. 888) and a Minute of the Board of Education, dated February 3rd, 1915, were received with

regard to the provision to be made for the care of mentally defective children. An Act of 1914 had made the duty of making provision for the instruction of educable cases between the ages of 7 and 16 obligatory. "Accommodation in *Residential Schools* will also be needed for children from urban areas who, owing to their home conditions or other causes, are unable to profit by instruction in a Day School but would benefit by instruction in a Residential School."

The Minute regulates the Grants for such schools :—

- (1) Where a Local Education Authority establishes a *Boarding School* for mentally defective children, the grant payable will be *one half* of the expenditure.
- (2) Where a Local Education Authority *sends* mentally defective children as *boarders* to a certified school in *another area* the Board will pay to *such Local Education Authority* half the cost.

Circular 888 states that :—

- (a) The Local Education Authority should make a complete survey and ascertain the number of mentally defective children requiring education in their area.
- (b) Provision must be made for such children. The Committee may provide Day or Residential Schools or send the children to a School provided by some other Local Education Authority.

NOTE.—It should be borne in mind that idiots, imbeciles, and certain border-line cases must be notified to the recently constituted Local Control Authority. This is being done at present. Ordinary mentally defective boys are now sent to the Holgate Bridge Special School, but there is no provision in York for girls. When the new school is ready on the Fulford Field House site, accommodation will be available for both sexes, but there will be a small number of cases of educable mentally defective children (not being idiots or imbeciles) for whom a *residential* school will be necessary. The pressing need at present is for accommodation (residential) for Epileptic children.

*Resolved by the Education Committee :—*That, as it is possible for the Committee to make provision for the reception of boarders at the proposed new school for mentally defective children, the Yorkshire Riding Authorities be asked whether they will send any of their children to the York school should it be decided to provide accommodation.

All three Riding Authorities have replied satisfactorily.

One mentally defective boy was sent to such a residential school by the York Education Authority during the year.

The local Committee under the Mental Deficiency Act of 1913 is in such working order as is possible under the present conditions. Dr. Hopkins, Medical Superintendent of the York City Asylum at Fulford, is Medical Adviser, and two other Superintendents of private asylums are the "approved" practitioners to sign certificates under Sections 3 and 5 of the Act. Arrangements have been made whereby the boys leaving the Special School between 14 and 16 years of age will be notified to the above Committee.

It has been decided to abandon the Reformatory at Cattal as a place of detention for Inebriates, and to utilise it as a County Institution for those affected by the Mental Deficiency Act.

The Temporary Open-Air School (Castlegate Temporary Council School for Tuberculous Children.

The Open-Air Class, which has been held in the garden of No. 11, Castlegate, behind the Tuberculosis Dispensary since August 18th, 1913, has been approved by the Board of Education as from that date as a special school for 20 physically defective children and it continues to maintain its recognised usefulness. The premises consist of a large garden, with small gardening plots for the children, and an open-air teaching shelter in it, and there is a dining-room (with one side entirely open to the outer air) in the same building as the Dispensary. The School has been established for definitely tubercular cases for the most part, but anæmic, weakly, and other possibly pre-tubercular children are admitted according to accommodation. Great care is taken to exclude any child suffering from an infectious form of tuberculosis.

The children are given frequent intervals of exercise or rest, and breathing and Swedish exercises are carried out. Definite periods of rest after the mid-day meal are enforced, the children lying on canvas reclining-chairs, wrapped up in warm rugs. Some of the children have feverish temperatures; such children are given additional rest, and their activities are controlled throughout the day. Temperatures are taken in the

mouth before breakfast and before tea, and are charted. The school has been carried on throughout the winters, and the children did not complain even on the coldest days. In severe cold, the intervals for work are shortened, and the periods of exercise or organised games are increased. Personal cleanliness and tooth-brushing are insisted upon.

The curriculum comprises all the ordinary school work, simple and practical lessons in dental and general hygiene, gardening, organised games, raffia, needlework, modelling, and other handiwork.

As the maintenance of nutrition is as important as the open-air life, the children receive three meals per day, per the Provision of Meals Sub-Committee of the Education Committee ; children who are likely to benefit by free meals during the holidays are given tickets to nearest Meals Centre. Clogs are lent to the children to keep their feet dry, and jerseys to keep the body warm, and although the conditions are not ideal for an open-air school, yet they have been much to the advantage of the children who have been taught there for the weeks or months they required.

The school-work is conducted by one lady teacher.

The certifying of children into the School and the general supervision of the Class is carried out by the Assistant School Medical Officer, under the direction of the School Medical Officer.

Special supervision and treatment as to *tubercular* conditions is carried out by the Tuberculosis Officer (Dr. Bell Ferguson). Cases on "general" treatment are supervised by the Assistant School Medical Officer.

The School Nurse visits the Class occasionally, as required by the School Medical Officers, and attends fortnightly for weighing and measuring and examining hair and skin.

In cases of emergency there is the Tuberculosis Nurse at the adjacent Tuberculosis Dispensary premises able to render aid. This nurse carries out the instructions of the Tuberculosis Officer in connection with actual treatment and home supervision, when for any reason the child is confined to bed at home.

A certain number of the scholars are under tuberculin treatment, and are under the supervision of the Tuberculosis Officer. The Temporary Assistant School Medical Officer,

Dr. Norah Kemp, inspected the children eight times during the year, and scheduled the results. In November, 1915, the school was inspected by Dr. Evelyn Wilson of the Board of Education.

There were 72 children on the roll for varying periods during 1915 (43 boys and 29 girls). Most of those discharged during the year now attend ordinary schools.

Totals of children who have passed through the school during 1915 :—

	Boys.	Girls.	Total.
Admitted	30	19	49
Discharged	21	10	31
On Roll, 31st December, 1915	14	11	25

Average length of stay in the school per pupil, 191 days.

The tubercular cases were as follows :—Neck glands 13 ; lungs 11 ; tracheo-bronch. glands 4 ; skin 2 ; hip joint 1 ; tibia 1 ; spine 2 ; maxilla 1 ; abdomen 5 ; throat 1 ; other joints 3. Three children were able to dispense with splints and crutches before leaving. The remaining seven cases were weakly children, contacts of tubercular cases.

	Stones.	lbs.	ozs.
Average weight on admission to the School ..	4	0	3
„ „ „ discharge from the School	4	3	11

The *average increase* in the boys was 3 lbs. 2 ozs., and in the girls was 3 lbs. 14 ozs.

It may be argued that it is natural for the growing child to increase in weight, but the characteristic of the tuberculous child is *inadequate increase in weight*.

First Medical Inspection of Pupils attending the Municipal Secondary School for Girls, Autumn, 1915.

The desirability of such inspection was suggested in Circular No. 779 of the Board of Education, dated June, 1911, particularly with regard to the fitness of the pupils for participating in gymnastic exercises and in such vigorous games as tennis and hockey. In accordance with the request of the Education Committee, Dr. Norah Kemp, the Temporary Assistant School Medical Officer, and I, in consultation with the Head Mistress of this school, modified the form for medical examination required from pupil teachers before admission to the school, the modified form providing for suitable enquiries into the

medical history, general health and physique of each pupil and their fitness for vigorous physical exercises, and for a brief verification or otherwise each subsequent year. It was arranged that the examination and filling up of the form should be carried out by the pupil's own medical adviser, or by the Assistant S.M.O., as preferred by the parents. No compulsion was involved, but the response of parents has been most gratifying (there were only twelve downright refusals) and the Education Committee, as well as the parents, have the satisfaction of knowing that the great majority of the pupils are "sound in wind and limb" and of healthy stock. On the other hand, in certain cases limitation of physical exercises was indicated, or spectacles were required, and so forth; the need for skilled attention to decaying or irregular dentition was noted in the majority of pupils; this was the most prevalent defect,—it was evident that there is need for calling the attention of the parents to the importance of the supervision of the teeth and the amelioration of their defects.

The results of this first inspection may be summarised as follows:—In all, forms were returned for 232 pupils, filled in, in 132 cases, by private medical practitioners (of whom one was a lady practitioner), and in 100 cases by the Temporary lady Assistant School Medical Officer.

Medical History.—The main facts were that 79 had at some time suffered from measles and 43 from scarlet fever; 3 had at some time suffered from pleurisy; 4 from tubercular glands; 3 St. Vitus's dance (chorea); 4 rheumatism or rheumatic fever.

Family History.—In 10 instances only was any history of tubercular disease obtained.

Normal Children.—143 of the girls appeared to be absolutely normal in health and physique apart from defects of teeth, and 35 others had only some degree of defective vision. (Total otherwise normal 178, or 76·7 per cent.)

Deformities.—Eleven of the girls had some degree of lateral curvature of the spine; in most cases it was of only slight degree. In two cases there was poor development of the chest.

Vision.—In 177 cases (76·3 per cent.) no defect of vision was recorded. In 19 cases there was defective vision (mostly myopia or astigmatism), for which suitable spectacles were being worn; in 25 cases of defective vision no spectacles were being worn, and in 9 cases those worn were unsuitable or doubtful as to their suitability. (Total cases of defective vision, 53.)

Hearing.—In no instance was actual deafness recorded.

Speech.—No cases of stammering were recorded.

Adenoids.—Seven girls had more or less enlarged tonsils, in two cases accompanied by adenoids, and there were three other cases of moderate tonsillar enlargement. (In all 4·3 per cent. of the total children were thus affected.)

In 15 of the girls, the enlarged tonsils or adenoids had been already removed.

Teeth.—66 of the girls (28½ per cent.) appeared to have entirely sound sets of teeth. Amongst the remainder (144) decaying teeth varied in number from one to nine per head. A total of 383 obviously decaying or carious teeth were noted. In 110 pupils the carious teeth were under four per head; in 34 there were from four to nine per head. Some sets of teeth had been recently treated, and some others were under the dentist at the time of inspection—22 in all.

Miscellaneous Defects.—There were four cases of anæmia, four of asthma or other pathological bronchial condition, and there were cases of tubercular glands, rheumatism, nervous debility and goitre.

Gymnastic Exercises and Games.—Limitation of physical exercises was recommended in 10 instances for the following, amongst other reasons:—heart disease, debility, “rapid growth,” anæmia or bronchitis. Limitation of games was recommended in 7 cases, owing to anæmia or other forms of debility. The playing of hockey was forbidden in 8 instances, owing to the following causes:—lateral curvature, anæmia, debility, bronchitis and astigmatism. Both physical exercises and the playing of tennis and hockey were forbidden in 6 cases.

Height and Weight.—Measurements of height were recorded in 141 instances, and of the weight in 134 instances, and the results according to age periods may be summarised in the following tables :—

Age.	AVERAGE HEIGHT.		
	York Averages for Elementary School Children for 7 years.	Mr. Arthur Greenwood's Averages, 1913.	York Secondary School for Girls, 1915.
	inches.	inches.	inches.
12—13	54.2	55.5	56.8
13—14	56.6	56.8	59.3
14—15	—	—	60.8
	AVERAGE WEIGHT.		
	lbs.	lbs.	lbs.
12—13	71.5	73.9	78.5
13—14	79.1	80.4	93.6
14—15	—	—	97.3

Provision of Meals for Necessitous Children :—Your School Medical Officer, when possible, attends the meetings of the Sub-Committee dealing with this matter. The School Medical Officers from time to time meet with needy, ill-nourished children for whom these meals should be provided, and children whose condition as to nutrition is in any doubt are occasionally referred to them, though not often. In this latter respect, the School Medical Officers can be of much service to the Sub-Committee.

Meals were provided at the following centres during some part or other of the year :—Skeldergate Mission Hall ; White Cross Lodge ; St. Margaret's Parish Room ; The Adult School Leeman Road ; The Junior School, Layerthorpe ; Central Mission, Swinegate ; St. Wilfrid's School ; St. George's School ; Holgate Bridge School ; St. Barnabas' School.

Under the difficult circumstances of the past year, it has been impossible for your School Medical Officers to keep as

well in touch with this work and with the matter of Physical Exercises as one would have desired. But such meals as we have seen were, on the whole, of nourishing and appetising character. Owing to the war-time prices of food, the scale of need was raised last Autumn, although the total number of children fed was declining considerably.

There was some considerable discussion as to breakfasts *versus* dinners. Medical Inspectors of the Board of Education disapproved of the increasing number of children having breakfasts and the diminishing number having dinners, and thought that the breakfast should comprise more milk and fatty food such as margarine or dripping. The Sub-Committee's observations and Councillor Davies' experiments had led the Sub-Committee to prefer breakfasts for many of the children, owing to their apparent lack of food, their fainting attacks during the morning, and the teachers' recommendations. The Inspectors strongly held that even where breakfasts are given dinner should also be given, as being the more important and more sustaining meal. As I pointed out to the Sub-Committee, the children who have dinners and who also need breakfast, would get an ample breakfast in porridge and milk, with or without bread and dripping or bread and margarine. The Sub-Committee decided in October to run dinners during the forthcoming winter and to ask the teachers to report such cases needing breakfasts in addition,—the teachers or the Sub-Committee to refer doubtful cases for the opinion of the Assistant School Medical Officer. The Sub-Committee would then be able to ascertain the effect of the change from breakfasts to dinners, and to obtain the views of the teachers as to the condition of the necessitous children under their charge. Hitherto, only one meal per day has been provided for such children.

Physical Exercises :—

The Assistant School Medical Officer forwards to the Head Teacher the names of any children found by him when visiting the schools to be unfit to undertake the physical exercises, and the Head Teachers are also asked to consult him about any children for whom certain physical exercises might be unwise or dangerous. During the year, thirteen children suffering from heart disease were specially excluded from drill, and instructions were sent to the Head Teachers accordingly.

Circular 910, dated June 4th, 1915, from the Board of Education, stated that the Board are glad to recognise the improvement which has been effected since the issue of the present syllabus in 1909, but the development of the subject is retarded by the fact that a large proportion of the teachers have not received adequate training in the best methods of teaching Physical Exercises. With a view to increasing the number of persons qualified to act as instructors, the Board proposed to make to selected teachers attending vacation courses at Scarborough and Barry, a maintenance allowance of £1 per week and travelling expenses. Candidates must be recommended by the Local Education Authority under whom they are serving.

Juvenile Employment Bureau.

Arrangements have been made to carry out the request of the Board of Education's Circular No. 813, whereby the Bureau is able to benefit by the records of Medical Inspection, made during their school life, of children about to enter into the world of employment. This arrangement is in systematic operation.

We hope that the After-Care Committees formed in connection with this work will eventually multiply the Care-Committees which have been doing good work in connection with the Medical Inspection of School Children, some of which have recently declined, to our regret. One Committee at each school should suffice to deal with both classes of "Care" work.

Child Wage-Earners in York :—

The operation of the proposed bye-laws under the Employment of Children Act, was postponed on account of the great need for workers produced by the War. There is undoubted need, in the opinion of the School Medical Service, for some carefully planned regulation of the employment of children; otherwise children are exploited, to their excessive fatigue, insufficiency of sleep, arrest of growth, and general physical detriment. The Bureau has recently published tables shewing that 713 boys and 79 girls are engaged in working for wages out of school hours. The corresponding numbers in May, 1914, were 640 and 116, showing 11% increase in the number of boys, 47% decrease in the number of girls, and 6% increase in the number of children employed. Taking the boys

of 12 years of age, 96 are in the class in which an average child of 12 years should be found ; 34 are one year, and 5 are two years in advance of their standard ; 53 are backward to the extent of one year, 27 to the extent of two years, 4 to three years, and 2 to four years. Taking the whole table of boys, 46% are in their normal standard, 12% are one year in advance, and 1.5% two years in advance of their normal standard ; while 26% are one year, 10% two years, 3% three years, and 1% more than three years behind the average in educational attainments. An examination of the table for girls gives the following results :—38% normal standard ; 10% one year in advance ; and 1% two years in advance of the normal ; 30% one year below, 17% two years below, and 4% three or more years below the standard. Thus, 40% of these boy workers and 51% of the girl workers are below the educational standard they should have reached. Compared with the returns of last year, the children are now working longer hours. This year 293 work 20 or more hours per week as compared with 198 in 1914 ; 43 work over 30 hours against 29 in 1914 ; and 5 over 40 hours, against 1 in 1914.

Three boys work night shifts, one from 6 p.m. to 12 p.m., one from 12 midnight to 5 a.m., and one from 6 p.m. to 5 a.m. The note made by the Head Teacher of the last-named boy is as follows :—“ This boy tells me he works during the night and comes without sleep to school ; he has been employed by his father unknown to the management. This work was stopped immediately on discovery, and steps taken to punish the father.”

The Hygienic Arrangements and Equipment of the School Buildings.

The School Medical Officer has attended most of the meetings of the Sites Sub-Committee, with the object of giving every help possible in the improvement of the older schools and in the hygienic designing of new schools, in relation to the health and physique of the children.

Brook Street School was closed in October as an elementary school. The only other matter to record is that the building of the new Knavesmire School dragged along during the year. The School Medical Officer had much to do with the provision of the south side open-air teaching arrangements and the spray baths and the choice of hygienic lavatory basins, etc.—new ideals which cannot fail to be beneficial to the scholars. It only remains to add that all measures should be taken to prevent encroachment on the lighting of the windows by possible adjacent house building.

MISCELLANEOUS.

Pupil Teachers examined :—

Twenty-four pupil teachers were medically examined during the year by the Assistant School Medical Officer as to their physical fitness for their future career. They all passed the test.

Industrial School Children :—

Eight boys and girls about to be sent to truant schools or industrial schools were also medically examined by the Assistant School Medical Officer, and all passed the test.

Microscopical Work :—

During the year, 801 swabs, taken from the throat or nose of suspected, convalescent or contact school cases of diphtheria were bacteriologically examined.

Ringworm Hairs : 100 microscopical examinations were made of hairs taken from the heads of children suspected to be suffering from ringworm of the scalp, or recovering therefrom.

Teaching of Infant Management in the Elementary Schools :—

On four occasions one of the Health Visitors has attended at the central Domestic Centre, and has given a demonstration to the senior girls on the washing and proper dressing and

care of infants, on a live and healthy baby, loaned for the occasion by a mother, who was in each case present and quite proud to be so. This has proved to be a most admirable and vivid way of instructing girls, who already often act as deputy mothers at home, and it is a great pleasure to record their delight in the lessons, and the enthusiasm of the Superintendent of the Domestic Centres, Miss Lucy Dobson, in making the arrangements.

Lectures to Teachers and Pupil-teachers :—I was informed by the Principal of the York Diocesan Training College, that students of these colleges are now required to know something of the medical inspection of school children, of the diseases of children and their prevention, of School Clinics, Special Schools, etc. ; and I felt it a duty and pleasure to respond to his request to give them lectures on the subject and to arrange for demonstrations of our Clinic and Special Schools. Upon my suggestion, the Education Committee extended the invitation to the lectures to the teachers and pupil-teachers of the elementary schools. Two lectures were given in the Museum of the Yorkshire Philosophical Society, and they were freely illustrated by lantern slides. Mr. T. E. Constant, the Dental Surgeon of the School Clinic, also spoke on "Dentition and Defects of Dentition," and he used some superb lantern illustrations. At the first lecture the Chairman of the Education Committee presided, and at the second lecture the Vice-Chairman presided ; the lectures appeared to be much appreciated by the large audiences which assembled.

In conclusion, I beg to express my appreciation of the Committee's adoption of my suggestion that the Annual Report for 1914 be circulated to all the teachers throughout the schools. That Report was largely written for their instruction and to secure their future interest and co-operation, and I hope and believe that that has truly been the result.

(Signed) EDMUND M. SMITH, M.D., D.P.H.,

School Medical Officer.

May, 1916.

APPENDIX A.

CITY OF YORK.

THE BOARD OF EDUCATION TABLES.

TABLE 1.—NUMBER OF CHILDREN INSPECTED 1ST JANUARY, 1915, TO 31ST DECEMBER, 1915.
A.—"CODE" GROUPS.

AGE :—	ENTRANTS.						LEAVERS.						GRAND TOTAL.
	3	4	5	6	Other Ages.	Total.	12	13	14	Other Ages.	Total.		
Boys ..	—	—	203	150	—	353	249	198	—	—	447	800	
Girls ..	—	—	220	166	—	386	230	170	—	—	400	786	
Totals ..	—	—	423	316	—	739	479	368	—	—	847	1586	

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B. GROUPS OTHER THAN "CODE."

	Intermediate Group.	Special Cases.	Re-examinations. i.e., Number of children re-examined.
Boys	—	117	20
Girls	—	97	13
Totals	—	214	33

CITY OF YORK—1915.

TABLE 2.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN INSPECTED.

Condition.	Entrants.			Leavers.			Intermediate Group.*			Total.			Special Cases.		
	B.	G.	T.	%	B.	G.	T.	%	B.	G.	T.	%	B.	G.	T.
Total Inspected.	353	386	739	—	447	400	847	—	—	—	—	—	117	97	214
CLOTHING.															
Satisfactory ..	326	366	692	93.7	425	377	802	94.7	—	—	—	—	109	90	199
Unsatisfactory ..	27	20	47	6.3	22	23	45	5.3	—	—	—	—	8	7	15
FOOTGEAR.															
Satisfactory ..	325	351	676	91.5	405	368	773	91.3	—	—	—	—	101	85	186
Unsatisfactory ..	28	35	63	8.5	42	32	74	8.7	—	—	—	—	16	12	28
CLEANLINESS OF HEAD.															4 [∞]
Clean (<i>i.e.</i> , no N. or P.) ..	344	308	652	88.3	441	274	715	84.5	—	—	—	—	115	68	183
Nits only ..	4	68	72	9.7	4	122	126	14.8	—	—	—	—	1	25	26
Pediculi* ..	5	10	15	2.0	2	4	6	0.7	—	—	—	—	1	4	5
CLEANLINESS OF BODY.															
Clean ..	316	360	676	91.5	365	377	742	87.7	—	—	—	—	100	96	196
Dirty ..	37	26	63	8.5	82	23	105	12.3	—	—	—	—	17	1	18
Pediculi present* ..	3	2	5	0.6	—	1	1	0.1	—	—	—	—	1	—	1
NUTRITION.															
Excellent ..	50	57	107	14.4	53	76	129	15.2	—	—	—	—	5	5	10
Normal ..	274	294	568	77.0	317	279	596	70.4	—	—	—	—	100	80	180
Below Normal ..	29	35	64	8.6	77	45	122	14.4	—	—	—	—	12	12	24
Bad ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

B—boys; G—girls; T—total.

* Pediculi = living lice.

Table 2.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN INSPECTED—Continued.

	Condition.	Entrants.			Leavers.			Intermediate Group.			Total.			Special Cases.		
		B.	G.	T.	%	B.	G.	T.	%	B.	G.	T.	%	B.	G.	T.
NOSE AND THROAT.	No defect ..	308	314	622	84.3	394	355	749	88.6	—	—	—	—	702	669	1371
	Mouth Breathers ..	17	27	44	5.9	19	24	43	5.0	—	—	—	—	36	51	87
	Tonsils : slightly enlarged ..	28	45	73	9.8	34	21	55	6.4	—	—	—	—	62	66	128
	Tonsils : much enlarged ..	11	18	29	3.9	14	23	37	4.3	—	—	—	—	25	41	66
	Adenoids : slight ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Adenoids : marked ..	6	9	15	2.0	5	1	6	0.7	—	—	—	—	11	10	21
EXTERNAL EYE DISEASE.	No disease ..	344	381	725	98.3	442	392	834	98.6	—	—	—	—	786	773	1559
	Blepharitis ..	2	—	2	0.2	4	6	10	1.1	—	—	—	—	6	6	12
	Conjunctivitis ..	4	2	6	0.8	1	—	1	0.1	—	—	—	—	5	2	7
	Corneal Opacities ..	2	2	4	0.5	—	—	—	—	—	—	—	—	2	2	4
	Other diseases ..	1	1	2	0.2	—	2	2	0.2	—	—	—	—	1	3	4
EAR DISEASE.	No disease ..	353	382	735	99.6	440	399	839	99.2	—	—	—	—	793	781	1574
	Obstruction : R. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Obstruction : L. ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Otorrhœa : R. ..	—	2	2	0.2	3	—	3	0.3	—	—	—	—	3	2	5
	Otorrhœa : L. ..	—	2	2	0.2	3	1	4	0.4	—	—	—	—	3	3	6
	Other diseases ..	—	—	—	—	1	—	1	0.1	—	—	—	—	1	—	1
TEETH.	Sound ..	38	57	95	12.9	89	80	169	20.0	—	—	—	—	127	137	264
	Less than 4 decayed ..	127	154	281	38.0	271	239	510	60.2	—	—	—	—	398	393	791
	4 or more decayed ..	188	175	363	49.1	87	81	168	19.8	—	—	—	—	275	256	531
	Sepsis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

B—boys ; G—girls ; T—total.

R—right ear ; L—left ear.

Table 2.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN INSPECTED—*Continued.*

	Condition.	Entrants.			Leavers.			Intermediate Group.			Total.			Special Cases.		
		B.		%	B.		%	B.		%	B.		%	B.		%
		G.	T.		G.	T.		G.	T.		G.	T.		G.	T.	
HEART AND CIRCULATION.	No disease ..	347	381	728	441	389	830	—	—	—	788	770	1558	112	95	207
	Organic disease ..	3	4	7	3	10	13	—	—	—	6	14	20	3	2	5
	Functional disease ..	—	—	—	1	—	1	—	—	—	1	—	1	—	—	—
	Anemia ..	2	1	3	1	1	2	—	—	—	3	2	5	2	—	2
	Other defect ..	1	—	1	1	—	1	—	—	—	2	—	2	—	—	—
LUNGS.	No disease ..	304	345	649	424	389	813	—	—	—	728	734	1462	113	94	207
	†Ch. Bronchitis and Br. Cat.	49	40	89	21	8	29	—	—	—	70	48	118	4	2	6
	Tuberculosis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Tuberculosis suspected ..	—	1	1	1	1	2	—	—	—	1	2	3	—	1	1
	Other diseases ..	—	—	—	1	2	3	—	—	—	1	2	3	—	—	—
NERVOUS SYSTEM.	No disease ..	351	382	733	446	400	846	—	—	—	797	782	1579	114	95	209
	Epilepsy: major or minor	—	—	—	1	—	1	—	—	—	1	—	1	1	—	1
	Chorea (St. Vitus' Dance) ..	—	1	1	—	—	—	—	—	—	—	1	1	—	—	—
	Other diseases ..	2	3	5	—	—	—	—	—	—	2	3	5	2	2	4
				0.6									0.3			
SKIN.	No disease ..	343	378	721	435	391	826	—	—	—	778	769	1547	116	94	210
	Ringworm: body ..	—	—	—	1	—	1	—	—	—	1	—	1	1	—	1
	Ringworm: head ..	4	2	6	1	2	3	—	—	—	5	4	9	—	—	—
	Impetigo (Scab head) ..	1	3	4	1	2	3	—	—	—	2	5	7	—	1	1
	Scabies (Itch) ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Other diseases ..	5	3	8	9	5	14	—	—	—	14	8	22	—	2	2
				1.0			1.6						1.3			

† Ch.—chronic.

† Br. Cat.—bronchial catarrh.

Table 2.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN INSPECTED—Continued

Condition.	Entrants.				Leavers.				Intermediate Group.				Total.				Special Cases					
	B.		G.		T.		%		B.		G.		T.		%		B.		G.		T.	
RICKETS.	No disease	..	317	384	731	99-0	443	397	840	99-3	—	—	—	—	790	781	1571	99-1	114	96	210	
	Slight	..	4	1	5	0-6	2	3	5	0-5	—	—	—	—	6	4	10	0-6	3	1	4	
	Marked	..	2	1	3	0-4	2	—	2	0-2	—	—	—	—	4	1	5	0-3	—	—	—	
DEFORMITIES.	No deformity	..	334	376	710	96-1	426	390	816	95-4	—	—	—	—	760	766	1526	96-3	114	92	206	
	Deformity present	..	19	10	29	3-9	21	10	31	3-6	—	—	—	—	40	20	60	3-7	3	5	8	
TUBERCULOSIS NON- PULMONARY.	No disease	..	352	386	738	99-9	447	399	846	99-9	—	—	—	—	799	785	1584	99-8	117	97	214	
	Glandular	..	—	—	—	—	—	1	1	0-1	—	—	—	—	—	1	1	0-06	—	—	—	
	Bones and Joints	..	1	—	1	0-1	—	—	—	—	—	—	—	—	1	—	1	0-06	—	—	—	
	Other forms	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
SPEECH.	Not defective	..	341	375	716	97-0	434	390	824	97-4	—	—	—	—	775	765	1540	97-2	107	93	200	
	Defective Articulation	..	11	10	21	2-8	11	8	19	2-2	—	—	—	—	22	18	40	2-5	10	3	13	
	Stammering	..	1	1	2	0-2	2	2	4	0-4	—	—	—	—	3	3	6	0-3	—	1	1	
MENTAL CONDITION.	Normal	..	300	360	660	89-4	351	292	643	76-0	—	—	—	—	651	652	1303	82-3	88	82	170	
	Dull or Backward	..	53	26	79	10-6	93	107	200	23-6	—	—	—	—	146	133	279	17-5	28	15	43	
	Mentally defective	..	—	—	—	—	3	1	4	0-4	—	—	—	—	3	1	4	0-2	1	—	1	
	(All grades)																					

B—boys; G—girls; T—total.

Table 2.—RETURN SHOWING THE PHYSICAL CONDITION OF CHILDREN INSPECTED—Continued.

	Condition.	Entrants.			Leavers.			Intermediate Group.			Total.			Special Cases.		
		B.	G.	T.	%	B.	G.	T.	%	B.	G.	T.	%	B.	G.	T.
VISION.	6/6 each Eye (Nrml. Vision)	—	—	—	—	229	168	397	46.9	—	—	—	—	229	168	397
	Less than 6/6 but not less than 6/9 in one or both eyes	—	—	—	—	143	156	299	35.3	—	—	—	—	143	156	299
	Less than 6/9 in one or both eyes (i.e., 6/12ths or less and requiring treatment)	—	—	—	—	75	76	151	17.8	—	—	—	—	75	76	151
SQUINT.		10	13	23	3.1	4	—	4	0.4	—	—	—	—	14	13	27
HEARING (WHISPER).	20 ft. each Ear (Nrml. Hear'g)	344	374	718	97.1	440	394	834	98.4	—	—	—	—	784	768	1552
	20 ft. R. ..	4	3	7	0.9	4	3	7	0.8	—	—	—	—	8	6	14
	20 ft. L. ..	2	2	4	0.5	3	2	5	0.5	—	—	—	—	5	4	9
	10 ft. R. ..	3	8	11	1.4	1	3	4	0.4	—	—	—	—	4	11	15
	10 ft. L. ..	6	9	15	2.0	3	2	5	0.5	—	—	—	—	9	11	20
	5 ft. R. ..	2	1	3	0.4	2	—	2	0.2	—	—	—	—	4	1	5
	5 ft. L. ..	1	1	2	0.2	1	2	3	0.3	—	—	—	—	2	3	5
OTHER DISEASE OR DEFECT.	Not present ..	350	381	731	99.0	433	373	806	95.2	—	—	—	—	783	754	1537
	Present ..	3	5	8	1.0	14	27	41	4.8	—	—	—	—	17	32	49

R—right; L—left.

TABLE 3.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

		Boys.	Girls.	TOTAL.
BLIND.	Attending Public Elementary Schools (partially blind—6/60 or less)	11	36	47
	Attending Certified Schools for the Blind	5	3	8
	Not at School	1	1	2
DEAF AND DUMB.	Attending Public Elementary Schools (partially deaf—5 ft. or less)	28	9	37
	Attending Certified Schools for the Deaf	8	3	11
	Not at School	—	—	—
MENTALLY DEFICIENT.	Attending Public Elementary Schools	—	17	17
	Attending Certified Schools for Mentally Defective Children	48	—	48
	Notified to the Local Control Authority during the year	1	1	2
Feeble-Minded.	Not at School	—	—	—
	At School	—	—	—
	Notified to Local Control Authority during the year	2	1	3
Imbeciles.	Not at School	3	2	5
	At School	—	—	—
	Notified to Local Control Authority during the year	—	1	1
Idiots.	Notified to Local Control Authority during the year	—	—	—
	Attending Public Elementary Schools	8	2	10
	Attending Certified Schools for Epileptics	2	2	4
EPILEPTICS.	Not at School	1	—	1
	Attending Public Elementary Schools	—	—	—
	Attending Certified Schools for Physically Defective Children (passed through in 1915)	11	4	15
Pulmonary Tuberculosis.	Not at School	2	3	5
	Attending Public Elementary Schools	—	—	—
	Attending Certified Schools for Physically Defective Children (passed through in 1915)	14	9	23
Other forms of Tuberculosis.	Not at School	4	5	9
	Attending Public Elementary Schools	16	24	40
	Attending Certified Schools for Physically Defective Children (passed through in 1915)	1	—	1
Cripples other than Tubercular.	Not at School	5	4	9
	Attending Public Elementary Schools	182	116	298
	Attending Certified Schools for Physically Defective Children (passed through in 1915)	30	47	77
DULL OR BACKWARD.*	Retarded 2 Years	—	—	—
	Retarded 3 Years	—	—	—
	Not at School	—	—	—

* Judged according to age and standard.

In the absence of any definition by the Board of Education as to what constitute partially blind and partially deaf children this Table is very conjectural.

TABLE 4.—TREATMENT OF DEFECTS OF CHILDREN DURING 1915.

	No. of defects found for which treatment was considered necessary			No. of defects for which no report is available, 1914-1915	1915 cases :—		1915 cases :—			1915 cases :—	
	Untreated from previous year, 1914.	New (1915).	Total.		No. of defects treated.	Results of treatment.			No. of defects not treated.	Per-centage of defects treated.	
						Reme-died.	Im-proved.	Un-changed.			
Clothing ...	202	92	294	294	—	—	—	—	—	—	—
Footgear ...	203	137	340	340	—	—	—	—	—	—	—
Cleanliness of Head ...	357	219	576	576	—	—	—	—	—	—	—
Cleanliness of Body ...	203	168	371	371	—	—	—	—	—	—	—
Nutrition ...	243	186	429	429	—	—	—	—	—	—	—
Nose and Throat ...	298	215	513	323	84	84	—	—	106	39.0	—
External Eye Disease ...	10	22	32	12	9	9	—	—	11	40.9	—
Ear Disease ...	—	11	11	1	8	5	3	—	2	72.7	—
Teeth ...	1,407	1,322	2,729	1,153	210	210	—	—	959	15.8	—
Heart and Circulation ...	27	28	55	30	12	8	4	—	13	42.8	—
Lungs ...	43	124	167	43	26	26	—	—	98	20.9	—
Nervous System ...	12	7	19	12	—	—	—	—	7	—	—
Skin ...	—	23	23	1	6	6	—	—	16	26.0	—
Rickets ...	9	15	24	24	—	—	—	—	—	—	—
Deformities ...	69	60	129	129	—	—	—	—	—	—	—
Tuberculosis (non-pulmonary) ...	3	2	5	3	2	—	2	—	—	100.0	—
Speech ...	58	46	104	104	—	—	—	—	—	—	—
Mental Condition ...	298	283	581	581	—	—	—	—	—	—	—
Vision and Squint...	189	178	367	166	87	20	67	—	56*	48.8	—
Hearing ...	17	34	51	20	17	9	8	—	14	50.0	—
Miscellaneous ...	23	49	72	15	47	47	—	—	2	95.9	—
Total ...	3,671	3,221	6,892	4,627	508	424	84	—	1,284	—	—

Owing to the war conditions it has been impossible to "follow-up" many of the untreated cases of the year 1914.

* A number of these will be treated during 1916.

APPENDIX B.

TABLE A. 1915.

Showing the Total Number of Children Medically Inspected at the various age periods at certain of the Schools during the year 1915, together with the number and percentage of parents and guardians present during the Inspection.

School.	Total Children Inspected.	Age Periods and Sex.				Number and Percentage of Parents present.	
		(B = boys. G = girls).					
		5—7 .		12—14			
		B.	G.	B.	G.	No.	Percentages.
Micklegate ..	138	30	29	44	35	25	18·1
English Martyrs' ..	67	15	12	14	26	1	1·4
Poppleton Road ..	227	35	44	68	80	59	25·9
Haxby Road ..	238	71	60	58	49	71	29·8
Park Grove ..	329	88	87	79	75	73	22·1
Bedern	49	—	—	32	17	7	14·2
Castlegate	122	44	59	—	19	29	23·7
The Manor	51	5	—	46	—	—	—
Fishergate	365	65	95	106	99	96	26·3
Totals ..	1,586	353	386	447	400	361	22·7

739

847

Total Boys, 800. Total Girls, 786.

TABLE B.—1915.—Investigation throughout the York Elementary Schools with a view to the detection of Scalp Ringworm, Nits, &c., amongst the scholars.

TOTALS AND PERCENTAGES.	BOYS (Upper).			BOYS (Infants).			GIRLS (Upper).			GIRLS (Infants).		
	Total examined.	Ring-worm.	Nits, &c.	Total examined.	Ring-worm.	Nits, &c.	Total examined.	Ring-worm.	Nits, &c.	Total examined.	Ring-worm.	Nits, &c.
Totals 1915 ...	4,156	—	43	1,677	2	31	4,856	—	679	1,634	3	219
Percentages ...	—	—	1.0	—	0.1	1.8	—	—	13.9	—	0.1	13.4
Totals 1914 ...	3,946	—	15	1,958	3	26	4,356	—	740	1,888	1	208
Percentages ...	—	—	0.3	—	0.1	1.3	—	—	16.9	—	0.05	11.0
Percentages for 1909 (First whole year of medical inspection)	3,659	3.0	7.8	1,672	5.3	11.2	3,726	2.2	52.0	1,596	3.0	56.0
Both sexes—all ages.				Percentages in previous years:—								
				1915.								
Ringworm	Total Cases.	Percentage.	1914.	1913.	1912.	1911.	1910.	1909.				
	5	0.04	0.03	0.1	0.09	0.1	0.3	3.0				
Vermineous conditions (Nits and Lice)		972	7.8	8.1	5.8	5.1	15.4	31.0				
Total No. of children examined ...				12,323	12,755	11,526	10,065	11,591	10,653			

Table C.—1915.—Cases of Disease notified to the Office by Head Teachers under "The Regulations regarding Contagious Diseases" (per Forms A and C) during the year.

Disease or Condition.]	Absentees notified by Head Teachers.				Suspects sent Home from School by Head Teachers in 1915.		TOTAL ABSENTEES AND SUSPECTS.		
	Upper Dept.		Infants' Dept.		Upper Dept.	Infants' Dept.	1915	1914	1913
	1915	1914	1913	1915	1914	1913	1915	1914	1913
Scarlet Fever ..	31	37	19	14	17	23	1	61	46
Diphtheria ..	9	21	7	4	14	3	2	41	12
Sore Throat ..	84	142	95	42	52	35	34	268	156
Mumps ..	21	237	24	23	376	63	10	755	124
Measles ..	44	54	10	406	574	105	19	664	119
Whooping Cough ..	25	27	14	172	195	234	2	247	278
Chickenpox ..	25	17	38	120	84	299	9	109	369
Influenza or Cold ..	107	84	42	197	182	81	1	282	125
Pneumonia ..	—	—	1	5	5	—	—	5	1
Ophthalmia or Sore Eyes ..	46	15	23	31	20	16	13	44	67
Blepharitis (sore eye-lids) ..	4	1	2	1	1	1	2	6	6
Ringworm ..	34	23	51	33	41	60	17	93	142
"Sore head" ..	—	—	—	—	—	—	—	—	—
"Dirty head" ..	—	—	—	—	—	—	—	—	—
Impetigo ..	69	86	63	80	72	59	41	243	175
"Eczema" ..	—	—	—	—	—	—	—	—	—
Head Lice ..	4	2	10	3	2	4	3	23	60
Body Lice ..	2	—	6	3	1	—	—	9	12
Scabies (Itch) ..	—	1	3	4	1	—	—	2	3
Enlarged Glands ..	17	23	13	6	38	14	1	69	32
Scabs ..	—	11	2	—	7	4	—	18	12
Tubercular Conditions ..	4	2	9	9	1	—	1	3	9
Various ..	195	148	162	214	209	142	16	412	354
Not stated ..	273	322	169	237	150	89	38	602	267
Totals ..	994	1,253	763	1,604	2,042	1,232	210	3,956	2,369

1915:—12 cases of Scarlet Fever, 1 Diphtheria, 16 Sore Throat, 25 Mumps, 52 Measles, 24 Whooping Cough, 24 Chickenpox, 77 Cold, 2 Scabies, 8 Ophthalmia, 1 Blepharitis, 10 Ringworm, 18 Impetigo, and 5 Tubercular Suspects turned out to be some disease or condition different from that suspected or notified by the Head Teachers, but most were worthy of investigation.

REPORT
ON
THE CONDITION OF THE TEETH
OF
TEN THOUSAND CHILDREN
ATTENDING THE ELEMENTARY SCHOOLS IN THE
CITY OF YORK,
DURING THE YEARS 1914-15,
BY
T. E. CONSTANT, M.R.C.S., L.D.S., L.R.C.P.,
Dental Surgeon to the York School Clinic.

APRIL, 1916.

*To the Chairman and Members of the York Education
Committee.*

Mr. Chairman, Ladies and Gentlemen,

After the inception of the Dental Clinic, I deferred making a report until a sufficient number of children had been inspected to enable me to present statistics from which an accurate inference could be drawn as to the extent of "the need for dealing with the problem of dental disease as it affects school children" in York.

When the Dental Clinic was inaugurated, the number and urgency of the cases that presented themselves for treatment suggested that the time allotted would be more usefully employed in work at the Clinic than in a tour of inspection at the schools. It was necessary, however, that an early record of the condition of the children's teeth should be made if the results of treatment were to be shown in the future with any degree of accuracy. There was another consideration of wider interest that rendered such inspection advisable. The dental profession is convinced, and the conviction is largely shared by the medical profession and the public, that dental disease has been increasingly prevalent for many years. At the same time, until quite recently, there have been no satisfactory statistics to shew to what extent that conviction is justified. The City of York has many characteristics that give peculiar value to the inquiry into, and record of, the physical condition of the children attending its schools. Its population* is large enough to afford ample material for investigation, and, at the same time, the city being of a residential rather than industrial character, comparison of such investigations from time to time is less likely to be complicated by the introduction of the varying elements that the term industrial implies in this connection. It is probable, therefore, that the following tables may be of permanent interest, indeed it was the hope of this that lightened the labour involved in the inspection of such a large number of children in such a comparatively short space of time.

* See Table 1c.

YORK PUBLIC ELEMENTARY SCHOOLS.

TABLE 1a.—BOYS.—Total Teeth Sound, Saveable, Unsaveable, etc.

Age Period.	Number of Children Examined.	TEMPORARY TEETH.			PERMANENT TEETH.			Total Missing Teeth.	Total Sound Sets.	Total Sets requiring Regulation.	*Stomatitic Sets of Teeth.
		Sound.	Saveable.	Un-saveable.	Sound.	Saveable.	Un-saveable.				
3—4	20	317	82	—	—	—	—	1	6	—	—
4—5	60	806	357	32	—	—	—	5	7	—	—
5—6	468	5,406	2,439	899	251	23	—	340	9	—	—
6—7	576	5,630	2,436	1,658	1,779	142	1	831	8	14	—
7—8	639	5,307	1,740	2,195	4,078	475	5	1,597	7	21	1
8—9	323	1,808	158	1,379	3,469	516	14	626	8	20	3
9—10	634	2,473	109	2,296	7,583	1,318	*75	1,321	11	39	10
10—11	621	2,019	68	1,675	8,660	1,340	125	1,095	18	48	5
11—12	612	777	22	973	10,539	1,504	192	792	24	45	6
12—13	603	345	14	519	11,771	1,552	302	666	33	46	7
13—14	474	65	6	208	9,986	1,472	390	1,124	20	52	7
14—15	21	—	—	2	443	84	23	36	—	3	1
15—16	4	—	—	—	85	14	3	10	—	3	—
Totals ..	5,055	24,953	7,431	11,836	58,644	8,440	1,130	8,444	151	291	40

* For meaning of term " Stomatitic " see text of Report, page 75.

The addition of Saveable and Unsaveable Teeth gives the total Carious Teeth.

TABLE 1b.—GIRLS.—Total Teeth Sound, Saveable, Unsaveable, etc.

Age Period.	Number of Children Examined.	TEMPORARY TEETH.			PERMANENT TEETH.			Total Missing Teeth.	Total Sound Sets.	Total Sets requiring Regulation.	Stomatitic Sets of Teeth.
		Sound.	Saveable.	Unsaveable.	Sound.	Saveable.	Unsaveable.				
3—4	10	160	40	—	—	—	—	—	2	—	—
4—5	42	549	245	32	2	—	—	12	2	—	—
5—6	451	5,100	2,245	783	403	12	—	303	9	—	—
6—7	567	5,649	2,467	1,357	2,200	131	—	1,807	6	8	—
7—8	638	4,952	1,709	2,056	4,773	572	42	1,238	4	23	—
8—9	337	1,800	204	1,315	3,550	579	30	629	5	17	—
9—10	580	2,319	176	1,789	7,313	1,223	88	1,056	15	38	2
10—11	649	1,853	79	1,379	9,579	1,344	302	857	21	30	8
11—12	579	583	36	751	10,421	1,458	272	567	32	49	6
12—13	585	149	8	345	11,969	1,587	402	1,894	31	59	5
13—14	472	61	—	146	10,025	1,530	458	987	12	47	12
14—15	27	—	—	3	528	147	24	54	—	3	—
15—16	8	2	—	1	165	34	5	27	—	—	—
Totals ..	4,945	23,177	7,209	9,957	60,928	8,617	1,623	9,431	139	274	33

TABLE 1c.—BOYS AND GIRLS (combined). Total Teeth Sound, Saveable, Unsaveable, etc.

Age Period.	Number of Children Examined.	TEMPORARY TEETH.			PERMANENT TEETH.			Total Missing Teeth.	Total Sound Sets.	Total Sets requiring Regulation.	Stomatitic Sets of Teeth.
		Sound.	Saveable.	Unsaveable.	Sound.	Saveable.	Unsaveable.				
3—4	30	477	122	—	—	—	—	1	8	—	—
4—5	102	1,355	602	64	2	—	—	17	9	—	—
5—6	919	10,506	4,684	1,682	654	35	—	643	18	—	—
6—7	1,143	11,279	4,903	3,015	3,979	273	1	2,638	14	22	—
7—8	1,277	10,259	3,449	4,251	8,851	1,047	47	2,835	11	44	1
8—9	660	3,608	362	2,694	7,019	1,095	44	1,255	13	37	3
9—10	1,214	4,792	285	4,085	14,896	2,541	163	2,377	26	77	12
10—11	1,270	3,872	147	3,054	18,239	2,684	427	1,952	39	78	13
11—12	1,191	1,360	58	1,724	20,960	2,962	464	1,359	56	94	12
12—13	1,188	494	22	864	23,740	3,139	704	2,560	64	105	12
13—14	946	126	6	354	20,011	3,002	848	2,111	32	99	19
14—15	48	—	—	5	971	231	47	90	—	6	1
15—16	12	2	—	1	250	48	8	37	—	3	—
Totals ..	10,000	48,130	14,640	21,793	119,572	17,057	2,753	17,875	290	565	73

The total population of the City for the year 1914 was 83,380.

The total number of children attending the Elementary Schools in the City on September 30th, 1914, was 14,342.

TABLE 2.—Percentages of Sound Teeth and of Saveable and Unsaveable Carious Teeth, according to sex and yearly age periods.

Age Periods:—		3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-16
(a) TEMPORARY TEETH—													
Sound—Boys ..	..	79.4	67.3	61.8	57.9	58.1	54.1	51.7	53.7	43.8	39.4	23.3	—
„ Girls ..	..	80.0	66.5	62.3	59.7	57.0	54.4	54.2	56.1	43.3	29.8	29.5	33.4
Saveable—Boys..	..	20.6	30.0	27.9	25.0	18.8	4.7	2.2	1.8	1.2	1.6	2.2	—
„ Girls ..	..	20.0	29.5	28.0	26.0	19.5	6.0	4.1	2.3	2.7	1.6	—	—
Unsaveable—Boys	..	—	2.7	10.3	17.1	23.1	41.2	46.1	44.5	55.0	59.0	74.5	—
„ Girls ..	..	—	4.0	9.7	14.3	23.5	39.6	41.7	41.6	54.0	68.6	70.5	66.6
(b) PERMANENT TEETH—													
Sound—Boys ..	..	—	—	91.6	92.5	89.5	86.8	84.5	85.6	86.2	86.4	84.3	81.0
„ Girls ..	..	—	—	97.0	94.6	88.6	85.3	84.8	85.3	85.8	85.7	83.5	78.3
Saveable—Boys..	..	—	—	8.4	7.4	10.4	12.9	14.7	13.2	12.3	11.4	12.4	15.0
„ Girls ..	..	—	—	3.0	5.4	10.6	14.0	14.2	12.0	12.0	11.3	12.7	18.8
Unsaveable—Boys	..	—	—	—	0.05	0.1	0.3	0.8	1.2	1.5	2.2	3.3	4.0
„ Girls ..	..	—	—	—	—	0.8	0.7	1.0	2.7	2.2	3.0	3.8	2.9

Footnote.—The addition of Saveable and Unsaveable Teeth gives the total Carious Teeth.

CHART FOUNDED UPON TABLE 3.

PERCENTAGES OF TOTAL POSSIBLE TEETH
TEMPORARY AND PERMANENT AT YEARLY AGE PERIODS.

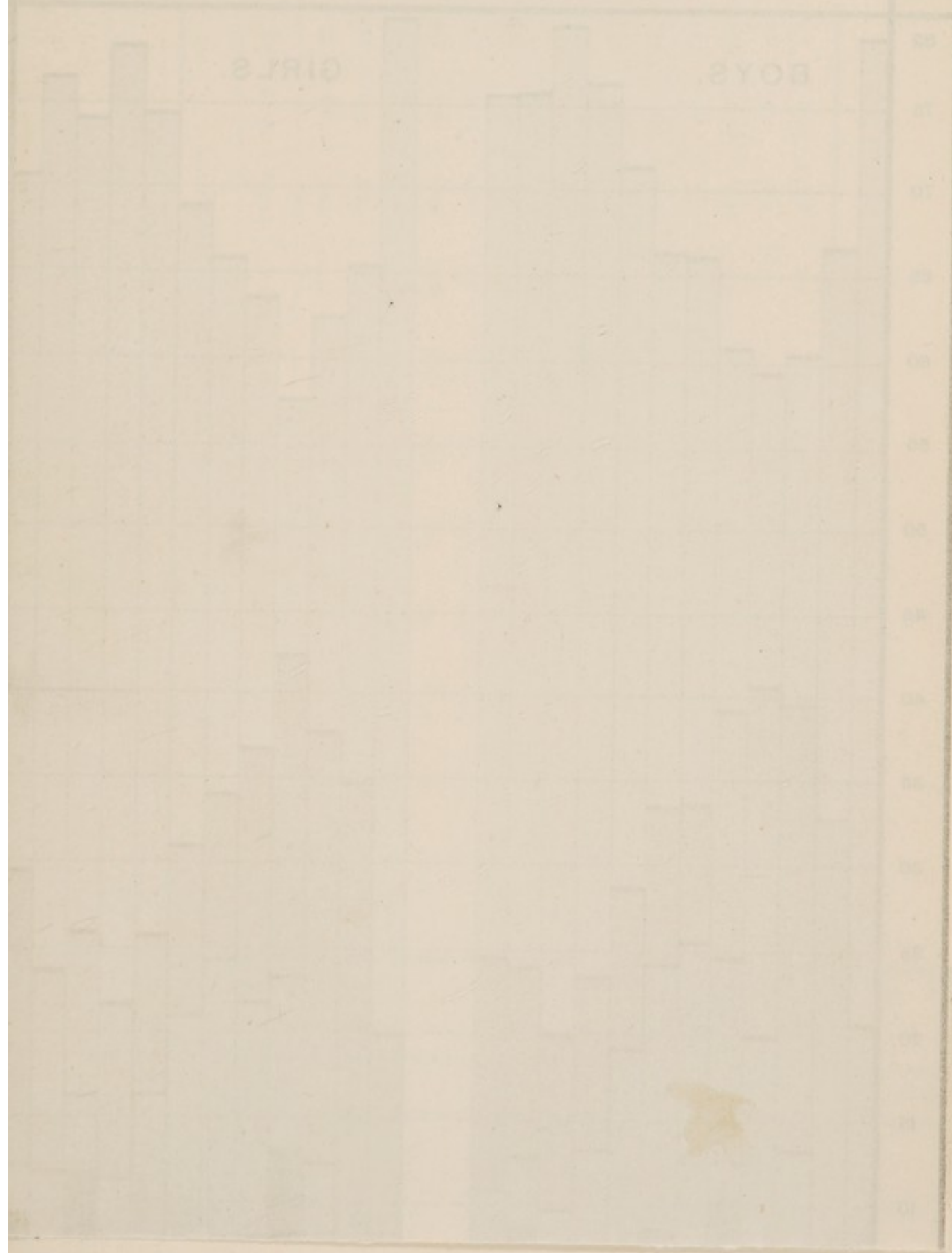
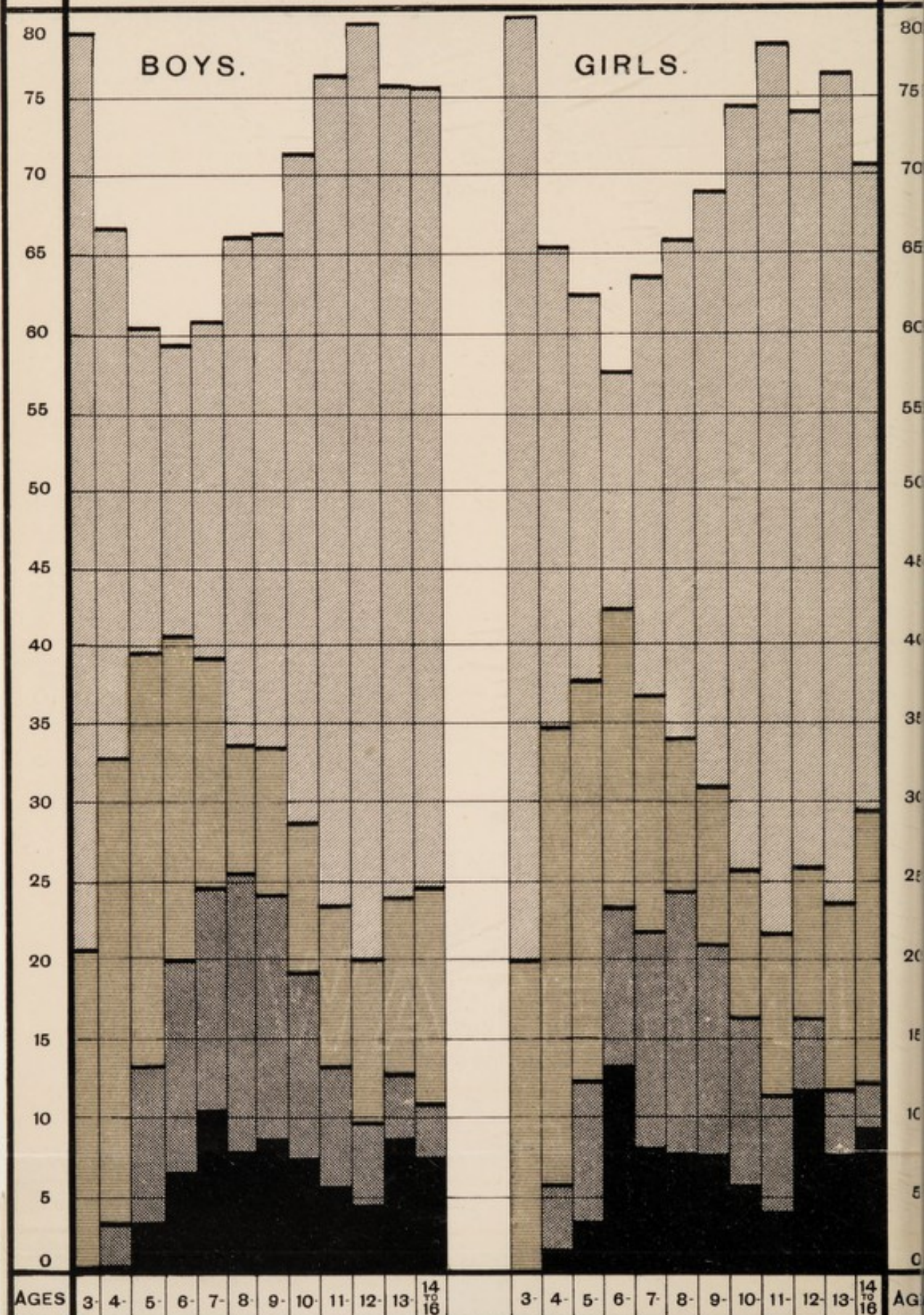


CHART FOUNDED UPON TABLE 3.

PERCENTAGES OF TOTAL POSSIBLE TEETH.
(TEMPORARY AND PERMANENT) AT YEARLY AGE PERIODS.



TOTAL HEIGHT OF COLUMNS = SOUND TEETH.

BLACK PORTION OF COLUMN = MISSING TEETH.

UNSAVEABLE TEETH =

SAVEABLE TEETH =

COMBINED =
TOTAL CARIOUS

TABLE 3.—BOYS and GIRLS compared.—Temporary and Permanent Teeth

Age Periods :—		3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-16
Sound Teeth—Boys ..		79.1	66.9	60.5	59.4	60.9	66.1	66.3	71.3	76.5	79.9	75.8	75.6
" " Girls ..		80.0	65.4	62.3	57.6	63.3	66.0	69.0	74.3	78.2	74.0	76.4	70.5
Sound and Saveable—Boys ..		99.7	96.6	86.8	80.0	75.3	74.6	75.7	80.7	86.8	90.2	87.0	89.0
" " " Girls ..		100.0	94.6	87.8	76.7	78.2	75.7	79.0	83.5	88.8	83.8	88.0	87.7
Saveable Carious—Boys ..		20.6	29.7	26.3	20.6	14.4	8.5	9.4	9.4	10.3	10.3	11.2	13.4
" " " Girls ..		20.0	29.2	25.5	19.1	14.9	9.7	10.0	9.2	10.6	9.8	11.6	17.2
Unsaveable Carious—Boys ..		Nil.	3.0	9.6	13.3	14.3	17.5	15.6	12.0	7.8	5.4	4.5	3.5
" " " Girls ..		Nil.	4.0	8.8	10.0	13.7	16.6	13.4	10.9	7.2	4.6	4.5	3.0
Total Carious—Boys ..		20.6	32.7	35.9	33.9	28.7	26.0	25.0	21.4	21.1	15.7	15.7	16.9
" " " Girls ..		20.0	33.2	34.3	29.1	28.6	26.3	23.4	20.1	17.8	14.4	16.1	20.2
Unsaveable and Missing—Boys		0.3	3.4	13.2	20.0	24.7	25.4	24.3	19.3	13.2	9.8	13.0	11.0
" " " Girls		Nil.	5.4	12.2	23.3	21.8	24.3	21.0	16.5	11.2	16.2	12.0	12.3
Missing Teeth only—Boys ..		0.3	0.4	3.6	6.7	10.4	7.9	8.7	7.3	5.4	4.4	8.5	7.5
" " " Girls ..		Nil.	1.4	3.4	13.3	8.1	7.7	7.6	5.6	4.0	11.6	7.5	9.3

TABLE 5.—Percentages of Sound Teeth and of Saveable and Unsaveable Carious Teeth, in Grouped Age Periods.

Age Period.	TEMPORARY TEETH.				PERMANENT TEETH.				TEMPORARY AND PERMANENT TEETH.				
	Percentages of Total Existing Teeth.				Percentages of Total Existing Teeth.				Percentages of Total Possible Teeth.				
	Sound.	Saveable.	Unsaveable.		Sound.	Saveable.	Unsaveable.		Sound.	Saveable.	Unsaveable.	Unsaveable and Missing.	Missing Teeth only.
(a) BOYS.													
3—7	60.7	26.4	12.9		92.5	7.5	—		66.5	24.3	9.2	6.5	2.7
7—12	53.9	9.1	37.0		86.1	12.9	1.0		68.2	10.4	21.4	13.4	8.0
12—14	35.5	1.7	62.8		85.4	11.9	2.7		78.1	10.7	11.2	4.9	6.3
14—16	—	—	—		81.0	15.0	4.0		75.6	13.4	11.0	3.5	7.5
(b) GIRLS.													
3—7	62.4	26.0	11.6		94.8	5.2	—		66.4	23.4	10.2	5.7	4.5
7—12	54.8	10.5	34.7		85.7	12.5	1.8		69.7	10.9	19.4	12.9	6.5
12—14	27.9	1.1	69.2		84.7	12.0	3.3		75.0	10.7	14.3	4.5	9.8
14—16	33.4	—	66.6		78.3	18.8	2.9		70.5	17.2	12.3	3.0	9.3
(c) BOYS and GIRLS (combined).													
3—7	61.5	26.2	12.3		93.6	6.3	—		66.5	23.8	9.7	6.1	3.6
7—12	54.4	9.8	35.8		85.9	12.7	1.4		69.0	10.7	20.4	13.1	7.3
12—14	31.7	1.4	66.0		85.1	11.9	3.0		76.5	10.7	12.8	4.7	8.1
14—16	—	—	—		79.6	16.9	3.5		73.0	15.3	11.6	3.2	8.4

TABLE 6a.—TEMPORARY AND PERMANENT TEETH.—Percentages of Sound Sets of Teeth, etc.

Age Period.	BOYS.					GIRLS.					BOYS AND GIRLS.		
	PERCENTAGES.					PERCENTAGES.					PERCENTAGES.		
	Total Children Examined.	Sound Sets.	Sets requiring Regulation.	Sets of Stomatitic Teeth.	Total Children Examined.	Sound Sets.	Sets requiring Regulation.	Sets of Stomatitic Teeth.			Sound Sets.	Sets requiring Regulation.	Sets of Stomatitic Teeth.
3-4	20	30.0	—	—	10	20.0	—	—			26.6	—	—
4-5	60	11.6	—	—	42	4.7	—	—			8.8	—	—
5-6	468	1.9	—	—	451	1.9	—	—			1.9	—	—
6-7	576	1.3	2.4	—	567	1.0	1.4	—			1.2	1.9	—
7-8	639	1.0	3.2	0.1	638	0.6	3.6	—			0.8	3.4	0.07
8-9	323	2.4	6.1	0.9	337	1.4	5.0	—			1.9	5.6	0.4
9-10	634	1.7	6.1	1.5	580	2.5	6.5	0.3			2.1	6.3	0.9
10-11	621	2.8	7.7	0.8	649	3.2	4.6	1.2			3.0	6.1	1.0
11-12	612	3.9	7.3	0.9	579	5.5	8.4	1.0			4.7	7.8	1.0
12-13	603	5.4	7.6	1.1	585	5.2	10.0	0.8			5.3	8.8	1.0
13-14	474	4.2	10.9	1.4	472	2.5	9.9	2.5			3.3	10.4	2.0
14-15	21	—	14.2	4.7	27	—	11.1	—			—	12.5	2.0
15-16	4	—	75.0	—	8	—	—	—			—	25.0	—
Totals ..	5,055	2.9	5.7	0.7	4,945	2.8	5.5	0.6			2.9	5.6	0.7

TABLE 6b.

Age Period.	Total Children Examined.	Sound Sets.	Sets requiring Regulation.	Sets of Stomatitic Teeth.	Total Children Examined.	Sound Sets.	Sets requiring Regulation.	Sets of Stomatitic Teeth.			Sound Sets.	Sets requiring Regulation.	Sets of Stomatitic Teeth.
3-7	1,124	2.6	1.2	—	1,070	1.7	0.7	—			2.2	1.0	—
7-12	2,829	2.4	6.1	0.8	2,783	2.7	5.6	0.5			2.5	5.8	0.7
12-14	1,077	4.9	9.0	1.2	1,057	4.0	10.0	1.6			4.4	9.5	1.4
14-16	25	—	24.0	4.0	35	—	8.5	—			—	15.0	1.6
Totals ..	5,055	2.9	5.7	0.7	4,945	2.8	5.5	0.6			2.9	5.6	0.7

TABLE 7.—Average Temporary and Permanent Saveable and Unsaveable Carious Teeth and Missing Teeth per child in Yearly Age Periods.

Age Period.	BOYS (a).			GIRLS (b).			BOYS AND GIRLS (c).		
	Saveable.	Unsaveable and Missing.	Missing Teeth only.	Saveable.	Unsaveable and Missing.	Missing Teeth only.	Saveable.	Unsaveable and Missing.	Missing Teeth only.
3—4	4.0	—	0.05	4.0	Nil.	Nil.	4.7	0.03	0.03
4—5	6.0	0.5	0.08	6.0	1.0	0.3	5.9	0.8	0.16
5—6	5.3	2.6	0.73	5.0	2.4	0.7	5.1	2.5	0.7
6—7	4.5	4.3	1.4	4.6	5.6	3.2	4.5	4.9	2.3
7—8	3.5	6.0	2.5	3.6	5.2	2.0	3.5	5.6	2.2
8—9	2.1	6.3	2.0	2.3	5.8	2.0	2.2	6.0	1.9
9—10	2.2	5.8	2.1	2.4	5.0	1.8	2.3	5.4	1.9
10—11	2.3	4.7	1.8	2.2	4.0	1.3	2.2	4.3	1.5
11—12	2.5	3.2	1.3	2.6	2.8	0.9	2.5	3.0	1.1
12—13	2.6	2.4	1.1	2.7	4.5	3.2	2.7	3.5	2.1
13—14	3.1	4.0	2.4	3.2	3.4	2.1	3.2	3.5	2.2
14—15	4.0	3.0	1.7	5.4	3.0	2.0	4.8	3.0	1.9
15—16	3.5	3.2	2.5	4.2	4.1	3.4	4.0	3.9	3.1

TABLE 8a.—Table shewing the condition of the Teeth of the BOYS of 6 to 8 years of age at each School.

School.	No. of Boys examined.	TEMPORARY TEETH.			PERMANENT TEETH.			Total Missing Teeth.	Total Sound Sets.	Total Sets requiring Regulation.	Stomatitic Sets of Teeth.
		Sound.	Save-able.	Unsave-able.	Sound.	Save-able.	Unsave-able.				
Micklethorpe ..	8	54	10	22	89	5	—	12	—	1	—
Scarcroft Road ..	70	646	205	198	255	36	—	208	1	—	—
St. Barnabas' ..	54	504	224	165	234	18	—	99	—	—	—
Priory Street ..	61	454	213	215	370	51	—	79	2	3	1
South Bank ..	30	323	114	87	85	13	—	44	4	1	—
St. Paul's ..	45	372	127	190	256	34	—	60	—	1	—
English Martyrs' ..	6	29	4	23	58	5	—	21	—	—	—
St. Clement's ..	86	817	287	268	304	31	5	240	1	4	—
Poppleton Road ..	71	581	307	234	381	40	—	97	—	2	—
St. Thomas' (Infants)	22	219	56	86	77	10	—	46	—	1	—
Haxby Road ..	70	622	281	196	410	29	—	139	1	1	—
Park Grove ..	117	1,039	411	397	586	71	—	206	—	5	—
St. Wilfrid's ..	47	427	171	160	268	10	—	59	—	1	—
Shipton Street ..	61	528	247	176	349	20	—	98	—	4	—
Clifton (Infants) ..	3	43	7	5	5	—	—	4	—	—	—
Brook Street (Boys only)	1	12	—	3	10	—	—	—	—	—	—
Manor (Boys only) ..	4	43	22	5	16	—	—	2	—	—	—
Model (Boys only) ..	14	104	58	50	96	6	—	20	—	1	—
Bedern ..	22	157	73	81	154	23	—	40	—	—	—
Castlegate (Infants) ..	38	416	99	85	103	15	—	83	2	1	—
Bilton Street ..	32	292	24	136	172	23	—	117	3	1	—
St. Lawrence's ..	82	736	281	255	290	54	—	268	—	2	—
Heworth ..	26	215	110	60	126	18	—	51	—	—	—
Fishergate ..	113	971	449	354	616	47	—	191	1	2	—
St. Margaret's ..	22	207	52	63	108	14	1	39	—	—	—
St. Denys' ..	42	452	145	105	206	14	—	59	—	4	—
St. George's ..	51	521	144	145	200	19	—	131	—	—	—
Laythorpe (Infants)	17	153	55	89	33	11	—	15	—	—	—
Totals ..	1,215	10,937	4,176	3,853	5,857	617	6	2,428	15	35	1
Percentages ..	..	..	..	..	..	..	..	..	1.2	2.8	0.08

TABLE 8b.—Table shewing the condition of the Teeth of the GIRLS of 6 to 8 years of age at each School.

School.	No. of Girls examined	TEMPORARY TEETH.			PERMANENT TEETH.			Total Missing Teeth.	Total Sound Sets.	Total Sets requiring Regulation.	Stomatitic Sets of Teeth.
		Sound.	Save-able.	Unsave-able.	Sound.	Save-able.	Unsave-able.				
Micklethorpe ..	1	14	6	—	—	—	—	4	—	—	—
Scarcroft Road ..	84	753	211	248	385	57	7	359	1	2	—
St. Barnabas' ..	56	476	281	143	302	21	—	124	1	3	—
Priory Street ..	57	400	175	182	420	48	—	145	1	2	—
South Bank ..	27	271	124	37	150	2	—	64	2	2	—
St. Paul's ..	41	324	171	95	309	20	25	46	1	1	—
English Martyrs' ..	6	24	19	28	34	6	—	35	—	—	—
St. Clement's ..	79	888	218	188	288	49	—	270	—	—	—
Poppleton Road ..	91	662	314	252	657	45	—	183	1	4	—
St. Thomas' ..	57	442	207	202	314	44	6	159	2	2	—
Haxby Road ..	58	540	199	167	364	29	—	99	2	—	—
Park Grove ..	94	730	365	324	578	59	2	182	—	4	—
St. Wilfrid's ..	56	490	181	156	375	44	—	110	—	1	—
Shipton Street ..	88	752	274	277	590	54	—	179	—	3	—
Clifton ..	14	119	32	53	90	19	—	25	1	—	—
Bedern ..	24	189	72	66	189	20	—	40	—	4	—
Castlegate ..	43	379	124	98	220	21	2	195	—	—	—
Bilton Street ..	26	223	51	131	143	36	—	56	—	1	—
St. Lawrence's ..	74	700	305	163	399	35	—	184	—	1	—
Heworth ..	19	156	98	38	95	8	—	61	—	—	—
Fishergate ..	100	931	380	276	611	37	—	178	—	—	—
St. Margaret's ..	28	286	89	63	126	18	—	92	—	—	—
St. Denys' ..	30	319	90	70	156	13	—	78	—	1	—
St. George's ..	29	281	119	82	113	14	—	91	—	—	—
Laythorpe ..	23	252	71	74	65	4	—	86	—	—	—
Totals ..	1,205	10,601	4,176	3,413	6,973	703	42	3,045	10	31	—
Percentages ..	..	..	..	..	—	..	..	..	0.8	2.5	—

TABLE 8c.—Table shewing the condition of the Teeth of Children (Boys and Girls) of 6 to 8 years of age at each School.

School.	No. of Children examined	TEMPORARY TEETH.			PERMANENT TEETH.			No. of Missing Teeth.	No. of Sound Sets.	Number requiring regulation.	Stomatitic
		Sound.	Save-able.	Unsave-able.	Sound.	Save-able.	Unsave-able.				
Micklethorpe ..	9	68	16	22	89	5	—	16	—	1	—
Scarcroft Road ..	154	1,399	416	446	640	93	7	567	2	2	—
St. Barnabas' ..	110	980	505	308	536	39	—	223	1	3	—
Priory Street ..	118	854	388	397	790	99	—	224	3	5	1
South Bank ..	57	594	238	124	235	15	—	108	6	3	—
St. Paul's ..	86	696	298	285	565	54	25	106	1	2	—
English Martyrs' ..	12	53	23	51	92	11	—	56	—	—	—
St. Clement's ..	165	1,705	505	456	592	80	5	510	1	4	—
Poppleton Road ..	162	1,243	621	486	1,038	85	—	280	1	6	—
St. Thomas' ..	79	661	263	288	391	54	6	205	—	3	—
Haxby Road ..	128	1,162	480	363	774	58	—	238	3	1	—
Park Grove ..	211	1,769	776	721	1,164	130	2	388	—	9	—
St. Wilfrid's ..	103	917	352	316	643	54	—	169	—	2	—
Shipton Street ..	149	1,280	521	453	939	74	—	277	—	7	—
Clifton ..	17	162	39	58	95	19	—	29	1	—	—
Brook Street ..	1	12	—	3	10	—	—	—	—	—	—
Manor ..	4	43	22	5	16	—	—	2	—	—	—
Model ..	14	104	58	50	96	6	—	20	—	1	—
Bedern ..	46	346	145	147	343	43	—	80	—	4	—
Castlegate ..	81	795	223	183	323	36	2	278	2	1	—
Bilton Street ..	58	515	75	267	315	59	—	173	3	2	—
St. Lawrence's ..	156	1,436	586	418	689	89	—	452	—	3	—
Heworth ..	45	371	208	98	221	26	—	112	—	—	—
Fishergate ..	213	1,902	829	630	1,227	84	—	369	1	2	—
St. Margaret's ..	50	493	141	126	234	32	1	131	—	—	—
St. Denys' ..	72	771	235	175	362	27	—	137	—	5	—
St. George's ..	80	802	263	227	313	33	—	222	—	—	—
Layerthorpe ..	40	405	126	163	98	15	—	101	—	—	—
Totals ..	2,420	21,538	8,352	7,266	12,830	1,320	48	5,473	25	66	1
Percentages ..	..	..	..	..	..	..	..	..	1.0	2.7	0.04

TABLE 9.—TEMPORARY AND PERMANENT TEETH.
Percentages of Children at each School with Sound Sets of Teeth.

SCHOOL.	PERCENTAGES.	
	Boys.	Girls.
Micklegate	3·7	5·3
Scarcroft Road	3·2	3·3
St. Barnabas'	6·0	3·1
Priory Street	4·2	4·2
South Bank	4·4	7·5
St. Paul's	4·6	3·2
English Martyrs'	4·4	5·3
St. Clement's	3·9	1·9
Poppleton Road	2·3	5·0
Holgate Bridge	0·0	0·0
St. Thomas'	0·0	0·4
Haxby Road	2·8	3·4
Park Grove	0·8	2·0
St. Wilfrid's	2·7	1·1
Shipton Street	9·0	1·9
Clifton	7·1	8·9
Brook Street	3·6	—
Manor	1·3	—
Model	1·9	—
Bedern	2·0	3·4
Castlegate	3·7	3·9
Bilton Street	5·3	2·4
St. Lawrence's	2·0	1·4
Heworth	1·1	0·0
Fishergate	1·7	3·0
St. Margaret's	2·6	0·9
St. Denys'	2·0	0·9
St. George's	2·8	1·0
Layorthorpe	0·0	0·0

Some explanation of the classification employed in the foregoing tables is necessary. From the list of children with "sound sets" all those have been excluded who have had teeth extracted. For statistical purposes it is unreasonable to classify children who have had a large number of teeth extracted as having sound sets, although the teeth that remain are sound; and, at the same time, classify children with the normal complement of teeth, one of which is carious, as having unsound sets. Nevertheless, it appears that this must have been done by some investigators, otherwise the discrepancy in the various reports is incomprehensible except upon the assumption that it is the result of imperfect inspection.

The number of children included in Table 1c with teeth which are sound but deficient in number is 121 (sixty-two boys and fifty-nine girls), percentage 1.2.

The percentage of children each with 28 sound permanent teeth which require regulating is 4.4.

It was noticeable that the proportion of children with the deformity known in this country as "superior protrusion" (undue prominence of the upper front teeth) was lower than in the case of children met with in private practice.

There were noted in the whole number of children inspected five cases of geminated* teeth, and seven of supernumerary teeth. Of the latter, one was associated with hare-lip, and one with cleft palate, an interesting conjunction in view of Warnekros' theory† of the ætiology of cleft palate and hare-lip.

The teeth classified as stomatitic in the above tables are those in which the incisor teeth and the first molars of the permanent dentition shewed definite evidence of faulty enamel formation, being either denuded of enamel or their surfaces presenting a pitted appearance, the pits admitting the point of a probe. Careful enquiry elicited the fact that in nearly half of the cases the children affected suffered during the early months of infancy from one or other of the eruptive fevers.

* A geminated tooth is the result of the fusion of two teeth during development.

† Warnekros has advanced the theory that there is a causative relationship between supernumerary teeth and cleft palate and hare-lip.

The term "Stomatitic" was applied by Jonathan Hutchinson to teeth the crowns of which presented a pitted or honey-combed appearance. He attributed the condition to the administration of mercury during infancy, but this view has not been upheld by later observers who have substituted the term "hypoplastic" for "stomatitic" without, I think, sufficient justification.

The tables must not be regarded as giving accurately the percentage of children with stomatitic teeth, as the less pronounced cases were not included, only those cards being marked stomatitic where the enamel lesions were sufficiently gross to enable a comparison to be made that would shew how far such defect in its most definite expression increases the tendency to dental decay.

The following table shews the condition of the children's teeth (stomatitic) :—

TABLE 11.—STOMATITIC TEETH.

Age Periods.		PERCENTAGES OF						
		TEMPORARY TEETH.			PERMANENT TEETH.			
		Sound.	Saveable.	Unsaveable.	Sound.	Saveable.	Unsaveable.	Missing.
9—10	Boys	17.5	—	20.0	41.2	12.5	—	8.7
	Girls	20.8	—	16.6	37.5	16.5	—	8.3
10—11	Boys	22.5	—	10.0	53.3	8.3	—	5.8
	Girls	8.8	—	11.4	54.6	16.6	—	8.3
11—12	Boys	—	5.5	3.4	72.9	14.5	0.6	4.1
	Girls	2.0	2.7	6.2	76.3	15.2	—	—
12—13	Boys	4.9	—	1.6	75.8	7.6	1.0	5.4
	Girls	0.7	—	2.8	71.4	6.4	5.0	13.5
13—14	Boys	—	—	—	79.0	13.7	—	4.0
	Girls	—	—	0.5	78.8	13.3	—	7.1

A comparison of this table with the following, which shews the condition of the non-stomatitic teeth of the same number of children of the same age periods, is interesting as shewing how far faulty amelification (enamel formation) predisposes to caries.

TABLE 12.—NON-STOMATITIC TEETH.

Age Periods.	PERCENTAGES OF							
	TEMPORARY TEETH.				PERMANENT TEETH.			
	Sound.	Saveable.	Unsaveable.		Sound.	Saveable.	Unsaveable.	Missing.
9—10	Boys	19.5	4.1	10.4	48.7	6.6	0.4	10.0
	Girls	18.7	6.2	20.8	37.5	10.4	—	6.2
10—11	Boys	13.3	1.6	16.6	60.0	5.0	1.6	2.5
	Girls	8.8	1.0	10.9	59.3	10.4	—	10.4
11—12	Boys	12.5	—	11.1	61.1	11.1	—	4.1
	Girls	6.9	—	5.5	63.1	10.4	5.5	8.3
12—13	Boys	3.8	—	0.5	79.1	10.9	2.1	4.3
	Girls	—	—	1.4	77.8	9.2	3.5	7.8
13—14	Boys	—	—	1.5	83.6	8.6	2.0	4.0
	Girls	0.8	—	0.8	77.6	10.7	2.6	7.1

The cards from which this latter table is made were taken haphazard, the only care being to exclude stomatitic teeth and to select the same number of boys and girls in each age period as there are in the preceding table.

This comparison naturally confronts us with the vexed question as to the predominating factor in the production of dental decay. The question is not one of mere academic interest or this report would not be the place for it. It is vital. There is ever increasing evidence of the prejudicial effect of dental disease upon the health of the individual, and the establishment of dental clinics by the more enlightened municipalities indicates the recognition of the fact. In most departments of healing, prevention has made great strides, but dental surgery, although it has probably more than held its own as a remedial art, has done very little in that direction. This is unsatisfactory; therefore, although it would be impossible to discuss at length the various theories which have been advanced to account for the admitted increase of dental disease, the subject cannot be altogether ignored.

Firstly, there is the matter of food. It has been strongly urged that the chief cause of the weak teeth of the children of to-day is that so few of them were breast fed when infants. My former colleague, Mr. R. B. Hunter, of Scarborough, very carefully investigated this point some years ago, and his findings clearly shewed that the difference between the teeth of breast fed children and the others was not sufficient to justify the theory.

Another food theory which has found wide acceptance is that the presence or absence of decay of the teeth is determined by the kind of food, particularly the bread, that they are required to masticate. Now both in private practice and during the inspection of school children, I have often observed that different members of the same family of approximate ages vary as to the condition of their teeth within the widest limits. In a certain case of twin boys, fourteen years old, whereas one had a flawless set of teeth, the other's teeth were all filled except the lower incisors and canines.

Another recent theory, or, to be more accurate, a recent revival of an old theory, is that the decay of teeth is from causes which act within the tooth. Under the attractive

appellation of "Eburnitis" this theory was advanced, and exploded many years ago. There is no doubt that changes of a degenerative type do take place within the tooth, and are reflected in corresponding and consequent changes in the sockets, changes which sometimes give rise to that interesting condition misnamed *pyorrhœa alveolaris*. This is not a disease of school children, and would not have been mentioned here but for the fact that sometimes medical practitioners, taking the term to mean, as it literally does, a flow of pus from the sockets of the teeth, confound chronic alveolar abscess with *pyorrhœa alveolaris*, and alarm anxious parents by assuring them that their child is suffering from a complaint that threatens to vie with appendicitis in the estimation of the medical profession. *Pyorrhœa alveolaris* many years ago was named Rigg's disease, after the gentleman who first described it. It is not invariably accompanied by a flow of pus, so that *pyorrhœa alveolaris* is a misnomer. By those who like the flavour of a defunct language with their pathology, it would be better described as *Osteitis Alveolaris Dentium Denudans*, as its characteristic feature is a rarefying osteitis which lays bare the necks of the teeth.

Yet another theory of the prevalence of dental decay is the omission of the use of the tooth-brush. "Clean teeth do not decay." It is unfortunate for this theory that some of the elder children inspected, who had perfectly sound sets of teeth, had never used a tooth-brush in their lives.

One more theory, the last to be considered, is that, owing to the diminished size of the jaws in civilised races, the teeth not diminishing *pari passu* with the jaws, overcrowding occurs, and decay of the teeth is the inevitable consequence. This theory for a certain period held sway in this country, and the extraction of the four first permanent molars was systematically practised with disastrous results.

It would appear from this review of the various theories that have been more or less in vogue, that the writer is adopting the easy role of the destructive critic. Such is not the case. All of the factors suggested in the theories under consideration are no doubt contributory causes, with the possible exception of those implied in the Eburnitis theory. That theory is entirely a matter of faith.

There is no doubt that infant feeding must affect the teeth as well as the other structures of the body. Indeed, to go further back than that, the ante-natal care of children that is now so strongly advocated is a move in the right direction, and will doubtless have a beneficial influence upon the teeth. The temporary teeth are developing during the intra-uterine life of the child, and it is highly probable that the health of the mother has more effect upon their development than the diet of infancy has upon the development of the permanent teeth ; *and one of the best safeguards of the permanent dentition is a sound first dentition.*

Then, with regard to diet after infancy, no physiologist would question the advisability of giving any organ opportunity for the proper exercise of its functions, yet, in view of the evidence before us, we are driven to the conclusion either that teeth which are given that exercise decay notwithstanding, or else that teeth which are denied it remain sound.

Again, very few people now-a-days would find fault with the proper use of the tooth-brush—which, at the very least, should be an essential item in the daily toilet—but, at the same time, it must be the experience of every dental surgeon that teeth decay even when it is employed with the utmost ritual, and it is not unusual to find comparatively sound sets of teeth in the mouths of adults who have never used it.

• Overcrowding of the teeth, particularly when it results in the formation of inter-dental spaces, which favour the accumulation of food, must tend to promote decay, but that it is only a contributory cause is evident from the fact that the most evenly arranged teeth are not immune, far from it.

Two opinions as to the cause of dental caries for which we are indebted mainly to the general medical practitioner, are the “hardness” and “softness” of the teeth, and the “hardness” and “softness” of drinking water. With regard to the first of these, it has been shewn that it is impossible for modern chemistry to distinguish by analysis between the hard tissues of teeth which clinical evidence has proved to be extremely liable to caries and of those which upon the same ground have been warranted sound. With regard to the second, it is not an infrequent experience to be told by a patient that the doctor attributes the weak teeth in his district where the water is soft to the deficiency of lime in it, and by a patient from another district that the doctor says her teeth are bad

as a result of the hardness of the water. It seems hardly probable that both of these views can be correct, and there is, moreover, no very satisfactory evidence in support of either.*

The drinking water theory is, however, very wide spread, and probably for the following reason. A person removes from one district to another, and some time afterwards his teeth, which had "given him no trouble before," commence to plague him. If it should have happened that he removed from a district where the water is soft to one where it is hard, or contrariwise, the change would be so pronounced that it would naturally suggest itself to him as the cause of the degeneration of his teeth. In some of these cases the real explanation is that decay had been going on for some time unperceived during the person's residence in the first district, and reached a degree that forced itself upon the attention some time after he had migrated to the second.

Making allowance for this, however, the variability of the teeth of the same person in their susceptibility to decay at different periods is a common experience and is in itself very significant. It is particularly marked in the case of children. Teeth which for months have been wasting away from the erosive effects of caries, seem to be suddenly endowed with powers of resistance. The walls of the cavities in them harden, and for a period which varies from weeks to years the destructive process is arrested. This happy result is brought about neither by a change of diet nor by the application of the tooth-brush. It has been due to an alteration in the character of the oral secretions. Under normal conditions the oral secretions must have a preservative effect upon the teeth. That the mere mechanical flushing out of the mouth by the saliva must be of great value is shewn by the condition of the mouth in those disorders in which the secretion of saliva is diminished. That the saliva sometimes not only fails to have a preservative effect upon, but is actually injurious to, the teeth was first noted by me about fifteen years ago. A patient whose teeth were otherwise sound, had the molar teeth on each side of the mouth decayed just where the saliva is ejected from the opening of the parotid duct. The buccal (outer) side of the tooth had the appearance of being dissolved by the stream of saliva which flowed freely across it. The appearance of the cavity was strikingly suggestive of what one might expect to see had the

* Dr. Röse, of Freiburg, published statistics to shew that in certain districts where the water is hard the teeth are better than in adjacent districts where it is soft.

tooth been made of sugar and kept dry except upon the surface which was in contact with the cheek. I have many times since seen similar cases, and a careful consideration of them, together with the more general phenomena of dental caries has convinced me that *the predominant factor in the production of dental caries is a variation from the normal of the oral secretions.*

So very little is known of the variations of these secretions in health and disease, that any suggestion as to the probable cause of the variation that is most commonly inimical to the teeth would be mere surmise. Considering the functional importance of the oral secretions, and their accessibility it is remarkable that they have been so little studied in this country, and I venture to predict that very little real progress will be made in dental prophylaxis until a fuller knowledge is obtained of the various secretions in which the teeth are constantly immersed.

Several American and Continental investigators have shewn that the relative amount of sulphocyanide in the saliva has probably an important bearing upon the question of dental caries, and it is to be hoped that further investigation in this direction will enable dental surgeons to do more in the way of prevention in the future than their imperfect knowledge has rendered possible in the past.

To return to the more immediate subject of the Report. It is of interest to note that in the large number of children inspected there were no teeth of the type described by Hutchinson as pathognomonic of congenital syphilis, even in the case of children exhibiting other stigmata of that disorder.

During the tour of inspection one child only refused inspection, and forty-nine were noted as being under the care of private dentists, less than 0.4 per cent. of the total number of children attending the schools. This estimate must be accepted with some reservation, because it was found that the number claiming to be attended by private dentists increased very remarkably after the first few days of inspection. This was regarded as gratifying evidence of interest in the care of the teeth stimulated by the inspection until it was discovered that the word had been passed that children claiming to "have their own dentists" were not required to attend the clinic. After this only the cards of children not attending the clinic, whose teeth shewed evidence of conservative treatment, were marked "own dentist."

Judging by the results obtained there seems to be considerable variety of method in the actual working of the various dental clinics throughout the country.

This suggests the desirability of enunciating definite principles for the guidance of those directly responsible for the work. The conditions and requirements with which we are confronted in the dental clinic are, at present, and for some considerable time will be, so widely different from those of private or even (dental) hospital practice, that the best results will not be obtained until the differences are clearly defined.

The ultimate aim, of course, should be to approximate, as nearly as possible, to the highest ideals of hospital and private practice, but it will necessarily be so many years before this can be achieved that the best results will only be obtained by keeping in view, and providing for, the actualities of the moment. The immediate recognition of these by young dentists fresh from hospital, from whom the ranks of assistant dental officers will be largely recruited in the future, cannot be expected, so that uniformity of treatment would be ensured, and saving of public monies would result from the formulation of definite rules. I would suggest that the School Dentists' Society, which includes in its membership most of those dentists who have had practical experience of dental clinic work since its inception, should be invited to undertake this task.

I feel I cannot conclude this Report without recording my indebtedness to Dr. Edmund Smith, Medical Officer of Health and School Medical Officer, for much kind advice and assistance in every department of my work in connection with the Clinic, also to him and his staff for the tables of percentages and the admirable chart which crystallizes the results of my inspection. I also desire to express my thanks to Miss Masterman, Chief Clerk of the School Clinic, for her assistance in the working out of the inspection tables, to the School Nurses for their help in the work of the Clinic, and to the Masters and Mistresses of the various schools who have done so much to facilitate the work of inspection.

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