[Report 1912] / School Medical Officer of Health, Bootle County Borough.

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BOROUGH OF BOOTLE,

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER.

1912.

Submitted to the Elementary Education Sub-Committee on January 31st, 1913.

BOOTLE:
BOOTLE TIMES, LIMITED, 30, ORIEL ROAD.

1913.

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Mr. Alderman ROBERTS, L.R.C.P., J.P. (Chairman of the Education Committee),

and

HIS WORSHIP THE MAYOR (Mr. Councillor W. H. Clemmey, J.P.)

Medical Staff.

School Medical Officer and Medical Officer of Health :—

W. ALLEN DALEY, M.D., B.S., B.Sc. (Lond.), B.A. (R.U.I.), D.P.H. (Cantab.).

Medical Inspector of Scholars :

D. M. MOFFATT, B.A., M.D., B.Ch., B.A.O., Dublin.
(To November 3rd, 1912.)

H. J. MILLIGAN, M.B., Glasgow, D.P.H. (Cantab.).
(From November 3rd, 1912.)

School Nurse:
Miss W. NICHOLLS.

CONTENTS.

THE SCHOOL MEDICAL OFFICER'S REPORT.

January 31st, 1913.

To the Chairman and Members of the
Local Education Authority.

LADIES AND GENTLEMEN,

I beg to present herewith my report on the Inspections of Schools and School Children performed during the past year.

Many of the subjects dealt with in this report have been included for the purpose of meeting the requirements of the Board of Education: some of them, such as the statements concerning local circumstances and conditions would be superfluous if intended only for the information of the Local Authority.

Dr. Moffatt who had acted as Medical Inspector since December, 1910, resigned in November, 1912, to the great regret of all who were familiar with his work.

Dr. Milligan has carried on the work since November, and has assisted me in the compilation of this report.

I wish again to acknowledge my appreciation of the constant help which I have received from the officials of the Education Department.

I have also to thank the members of the Elementary Education Sub-Committee for the active interest which they have taken in this branch of their work, and for the time and attention which they have devoted to it.

I am, Ladies and Gentlemen,

Yours obediently,

W. ALLEN DALEY,
School Medical Officer.

COUNTY BOROUGH OF BOOTLE.

The population of the Borough at the Census of 1911 was 69,876: 13,965 were between five and fourteen years of age.

The estimated population in July, 1912, was 71,152.

The area is 1,947 acres.

There are six Council, three Church of England, and three Roman Catholic Schools. Their accommodation, average number on the rolls and average attendance during 1912, are given in the following table :—

	Accommodation.	Average No. on Rolls.	Average Attendance.
Council Schools	6,508	6,524	5,880
Roman Catholic Schools...	2,776	2,950	2,550
Church of England Schools	2,407	2,550	2,233
Total ...	11,691	12,024	10,663

On January 31st, 1912, there were in the Denominational Schools, 105 boys and 128 girls who were then under the age of five years. Children under that age are not admitted to the Council Schools.

The nominal accommodation of the Day Industrial School is 300; during 1912, the average number on the rolls was 135 and the average attendance 125.

Another Council School, designed to receive 1,000 children, has lately been erected.

The Secretary for Education has kindly supplied the foregoing information.

I am indebted to the Borough Accountant for the following :—

The Rateable Value of the Borough in 1912 was £470,818.

The total cost of Medical Inspection for the twelve months ending July 31st, 1912, was £489.

The cost per child on the school rolls was 9·5d., and the cost as a decimal part of a penny rate was ·262, *i.e.* just over a farthing.*

*Whilst in the press a letter has been received from the Board of Education, stating that £140 6s. 0d. for the year ending March 31st, 1913, will be paid in accordance with the provisions of the Regulations for Grants in Aid of Medical Treatment, and work ancillary thereto, see page 50. Thus the total annual cost of the School Medical Service is about £349 or ·186 as a decimal of a penny rate.

GENERAL REVIEW OF ADMINISTRATIVE ARRANGEMENTS.

During the year a change occurred in the Medical Inspectorship, and this necessarily involved some change in the standards adopted, but an endeavour has been made to retain, as far as possible, those previously used. In certain conditions, such as defective vision, carious teeth, etc., the extent of the defect is a definitely measurable quantity, but the reports on many other conditions are influenced by the personal equation of the examiners, whose opinions may differ as to what constitutes a pathological defect worthy of record. Instances of this occur in judging what constitutes insufficient clothing or footwear, and the signs which lead one to *suspect* the presence of a small amount of adenoid growth at the back of the nose, or what combination of signs and symptoms leads one to say that a child is in a pre-tuberculous condition. It is essential that we should adopt, as far as possible, the same standard from year to year, as the *result* of medical inspection and its accompanying supervision of the health of the children can only be determined by comparing the reports of different years.

During 1912, home visitation was performed by Voluntary Helpers and to a certain extent by the Lady Inspectors appointed by the Health Committee. Towards the end of the year a school nurse was appointed and she entered upon her duties on January 1st, 1913.

The clerical work which is constantly growing is carried out in the Public Health Department; the clerks are thus directly under the control of the School Medical Officer, and the arrangement is a good one.

The methods of keeping the cards and obtaining the medical history described in last year's report are still in use and are satisfactory.

Owing to the migratory habits of the parents, it is a difficult matter to arrange that the cards correspond with the children actually present in the various schools. In 1910, Mr. J. C. Iles, H.M. Inspector of Schools, drew attention to the fact that of the scholars who were then in Standard II throughout the Borough, 38·5% of the girls and 31% of the boys had not been educated in the corresponding Infants' School. A clerk periodically visits each school and assorts the cards.

Groups of Children Examined.—During the year, 3,966 routine examinations were performed, comprising 2,243 entrants, 1,055 leavers and 668 children of an intermediate age group.

An admission form is received by the School Medical Officer concerning every child who enters a school. An inspection card is filled up for each case and thus a complete list of entrants is obtained. In 1912, entrants formed 21 per cent. of the average attendance. All children born on or before December 31st, 1899, were examined as "leavers": by thus examining children, some of whom were aged twelve years only, ample time was given in which to follow them up and secure treatment for any defects discovered. The 1,055 "leavers" represent 9·8 per cent. of the average attendance. The number whose examination is required by the Code, *i.e.*, the entrants and leavers, is 30·8 per cent. of the average attendance.

It was also possible to examine a certain number of children in the Junior Schools; many of these had been examined as entrants when in the Infants' Departments. They represent 6·2 per cent. of the average attendance. The total number of children inspected at routine examinations was 37 per cent. of the average attendance.

Immediately after the routine inspection of each department, a list of the children who require treatment is sent to the Head Teacher; six weeks afterwards the Medical Inspector re-examines all children whose names appear upon the "following-up" registers. The registers are then handed to the School Nurse who visits the homes of those children who are in need of treatment and endeavours to obtain amelioration of the defects. If any child is found at a routine or special examination to be in urgent need of treatment, the case is referred immediately to the School Nurse. Further re-examinations take place from time to time.

Children who obviously require medical attention are presented as "Special" cases during the routine visits; or they may be seen at the Inspection Clinic, at the Town Hall, on Monday, Wednesday and Thursday at 4 p.m., and on Saturday at 10 a.m.

Time taken for Examinations.—The number of children who could be examined in a school session varied considerably and depended largely upon the amount of assistance given by the teachers. Under favourable circumstances it was possible to examine some twenty children between 9-45 a.m. and noon, or 1-45 and 4 p.m.

Where Examinations are held.—In 1912, the examinations were held in the school buildings except in the case of St. James' Select School where no

accommodation can be provided for the Medical Inspector. The children from this school were examined at the Day Industrial School, which is a few yards distant. The accommodation for Medical Inspection at St. James' Elementary School is most unsuitable. The infants and juniors were examined in the cloak rooms. It has been arranged that for future examinations, the children from this school also will be taken to the Day Industrial School. In eight of the schools the examinations take place in the teachers' rooms, and in class-rooms in the remaining two. In at least three of the teachers' rooms the accommodation is unsuitable for the testing of vision, for which good illumination and a room twenty feet long are required. In some schools, the noise from the street or surrounding rooms rendered examination of the chest and hearing rather difficult.

Co-ordination with other Departments.—As the School Medical Officer is also Medical Officer of Health, there is complete co-ordination of school medical work and those other branches of preventive medicine which are carried out by the Local Sanitary Authority.

The cordial co-operation between the Education and Public Health Departments of the Corporation, which was noted in last year's report, continues.

The School Attendance Department is daily furnished with certificates of children excluded under the provisions of Article 53 (b) of the Code. The Secretary for Education sends notifications of cases of infectious diseases, eczema, ringworm, sore eyes, etc., as soon as they are brought to the notice of the School Attendance Officers; these cases are visited, and, if need be, excluded. If any doubt exists as to whether a child is unfit to attend school on medical grounds, and a certificate from a medical practitioner is not produced, he or she is sent to the Medical Inspector for examination and report.

All medical certificates received by the School Attendance Department are referred to the School Medical Officer, and the contents are noted on the Inspection Schedules.

Extension of Medical Inspection.—In several towns, scholars who attend the Secondary Schools are medically examined, for in them, as in the children attending the Elementary Schools, latent defects and diseases commonly exist. It is probable that objection would be made by the parents of some children;

this difficulty could be surmounted by asking the parents of such children to obtain the requisite information to be recorded on the inspection schedule from their usual medical attendant.

In Bootle, Scholarship Candidates and Bursars only are examined.

In addition to the six sub-divisions of School Medical Work dealt with last year, a section of Juvenile Employment is now added.

I.—MEDICAL INSPECTION.

Routine Examinations.—The following table gives the number of children examined at the routine examinations :—

Age.	Boys.	Girls.	Total.
3	15	19	34
4	59	84	143
5	533	486	1,019
6	258	243	501
7	214	245	459
8	141	166	307
9	85	104	189
10	80	52	132
11	84	43	127
12	197	193	390
13	294	334	628
14	20	16	36
15	1	0	1
Total	1,981	1,985	3,966

Inspections have been performed in all the departments of each school.

Special Examinations.—The number of children who were presented for special examination was 648. Of these, 172 were presented by

the teachers at school during the course of the routine inspections and 476 were seen at the Town Hall.

The following table shows the number of children who were referred for examination at the Town Hall by:—

Teachers	153 or 32%.
School Attendance Officers ...	202 ,, 42%.
Lady Health Visitors	83 ,, 18%.
Parents and Others	38 ,, 8%.

The Inspection Clinic, held at the Town Hall on three afternoons from 4 to 5 o'clock, and on Saturday mornings is very popular; so popular, in fact, that children under school age have been brought for examination.

If any serious defect is found, the parents are asked to take the child to their usual medical attendant: in many cases he is the medical officer of a hospital or other charitable institution. No treatment is given by the School Doctor.

Though it has been impossible to devise a scheme by which waiting to see the doctor can be altogether avoided, it is found, in practice, that a maximum of about fifteen attend at one time and it is seldom that a patient has to wait more than half to three-quarters of an hour. Many attend simply to report themselves, e.g., cases of ringworm, and these can usually be dealt with in a few minutes.

Re-Examinations.—3,170 re-examinations were made; 2,196 were performed at the schools and included the re-examinations of all those routine or special cases whose names appeared on the following-up registers: 974 re-examinations were made at the Town Hall; these included re-examinations for certificates to attend school after ringworm, etc., and visits paid by tuberculous and other children who were being kept under observation.

Eight children who had been committed to Industrial Schools were examined and also twelve bursars.

The number of examinations performed since the inauguration of the work shows a steady increase, as can be seen from the following table, but it is probable that 1912 has demonstrated the maximum amount which can be efficiently performed by the present staff.

Year.	Routine Inspections.	Special Examinations.	Re-Examinations.	Totals.
1908 ...	1,565	—	—	1,565
1909 ...	2,550	408	—	2,958
1910 ..	2,049	?	—	2,049
1911 ...	2,920	515	1,119	4,554
1912 ...	3,966	648	3,170	7,784
Total ...	13,050	1,571	4,289	18,910

Attendance of Parents.—The following table gives the number of parents present at the routine examinations :—

	Boys.	Girls.	Infants.	Total.
Children examined	1,018	1,059	1,889	3,966
Parents present ...	322	495	1,239	2,056
Percentage ,, ...	31·6	46·7	65·5	51·8

It is gratifying to note that the percentage of parents present at the examinations of the boys has increased from 9·7 in 1911 to 31·6 in 1912, and of the girls from 21·6 to 46·7. This shows that medical inspection is stimulating the interest of the parents in the physical condition of their children, and hence is increasing their sense of parental responsibility.

The children who attend the Inspection Clinic are generally accompanied by their parents.

Objections to Examination.—Six children were not examined because their parents had sent written objections.

Disturbance of School Arrangements by Inspections.—Three days' notice of a routine inspection and one day's notice of a re-examination is sent to the Head Teacher of the department about to be examined. The teachers generally gave much assistance and greatly facilitated the work by preparing the inspection cards where this was required, and in some schools by weighing and measuring the children. For the expeditious examination of the children the co-operation of the teachers is essential.

I wish to express my thanks to all the teachers, and particularly the Head Teachers, for the very valuable assistance which they have given.

Visits to Schools.—229 visits to schools for routine inspections were paid by the Medical Inspector. The School Medical Officer or the

Medical Inspector paid 46 visits for special examinations and 39 for re-examinations. Thirty-four visits where paid to the Day Industrial School.

Inspection Cards.—The cards are similar to those used in previous years.

MEDICAL HISTORY OF THE 3,966 CHILDREN INSPECTED.

Before commencing school life,

2,730	or	68·8%	were said to have suffered	from		Measles,
1,747	,,	44·0%	,,	,,	,,	Whooping Cough,
1,107	,,	27·9%	,,	,,	,,	Chickenpox,
356	,,	8·9%	,,	,,	,,	Scarlet Fever,
84	,,	2·1%	,,	,,	,,	Diphtheria.

Since commencing school life,

137	or	3·4%	were said to have suffered	from		Scarlet Fever,
95	,,	2·3%	,,	,,	,,	Chickenpox,
94	,,	2·3%	,,	,,	,,	Measles,
58	,,	1·4%	,,	,,	,,	Whooping Cough,
17	,,	·4%	,,	,,	,,	Diphtheria.

Vaccination had not been performed in 215 instances or 5·4%.

GENERAL SUMMARY.

A general summary may now be given of the numbers examined at each school, and the defects found.

TABULAR STATEMENT SHOWING THE NUMBER OF CHILDRE
THE NUMBER OF DEFECT

School	Number examined	Number of children with physical defects	Percentage with physical defects	Number of parents present	Skin Disease	Dirty condition of body	Head		Clothing		Footwear		External Eye Diseases	
							Nits present	Vermin present	Fair	Insufficient	Needing repair	None	Blepharitis, etc.	Squint
Infants—														
St. Mary's	230	182	79·1	149	10	60	65	...	63	7	29	4	15	19
Bedford Road ..	168	131	77·9	120	7	16	20	...	20	...	5	...	6	4
Christ Church ..	81	69	85·1	53	1	7	8	...	3	...	3	...	3	1
Gray Street	130	107	82·3	80	4	7	28	2	26	...	16	9	6	5
Hawthorne Road ...	251	209	83·2	165	16	29	65	..	40	2	25	1	15	8
Linacre	131	106	80·9	106	4	9	17	...	7	...	3	...	6	6
St. James'	185	116	62·7	89	17	58	40	..	48	...	22	16	17	9
St. James' Select ..	144	127	88·1	74	7	18	31	1	29	...	7	...	12	3
St. John's	109	83	76·1	95	7	24	17	...	30	2	8	3	10	5
St. Winefride's ...	117	83	70·9	93	1	20	43	...	35	...	7	24	8	3
Salisbury Road ...	185	128	69·1	113	1	12	62	1	27	...	8	2	11	10
Orrell	158	135	85·4	102	8	19	34	...	22	...	8	...	10	9
Totals ...	1889	1476	78·1	1239	83	279	430	4	350	11	141	59	119	82
Girls—														
St. Mary's	89	80	89·8	36	4	10	24	...	22	1	15	...	4	2
Bedford Road... ..	121	98	80·9	54	4	13	48	...	7	...	2	...	2	2
Christ Church ...	46	42	91·3	14	1	...	14	...	...	...	..	...	1	...
Gray Street	90	80	88·8	50	4	4	36	2	8	...	7	...	6	2
Hawthorne Road ...	89	82	92·1	25	3	8	39	...	28	...	18	...	5	2
Linacre	24	19	79·1	17	...	1	9	...	...	...	...	...	...	1
St. James'	81	71	87·6	37	5	20	43	...	17	...	6	10	4	3
St. James' Select ...	156	142	91·0	60	6	12	59	...	12	...	5	...	5	7
St. John's	81	72	88·8	45	5	20	37	..	18	2	6	1	5	2
St. Winefride's ...	39	34	87·1	16	2	3	21	..	10	...	4	3	1	...
Salisbury Road ...	152	131	86·1	83	3	6	85	...	10	...	13	2	7	4
Orrell	91	86	94·5	58	3	6	26	...	4	...	4	...	4	1
Totals ...	1059	937	88·4	495	40	103	441	2	136	3	80	16	44	26
Boys—														
St. Mary's	45	39	86·6	14	2	6	...	...	23	...	6	2	3	1
Bedford Road ...	135	109	80·7	42	3	14	...	...	24	...	6	...	2	4
Christ Church ...	75	62	82·6	23	5	5	...	...	3	...	5	..	2	...
Gray Street	73	63	86·3	38	3	2	...	1	15	1	...	4	3	2
Hawthorne Road ...	76	69	90·7	14	2	19	1	...	28	3	8	2	4	2
Linacre	91	77	84·6	42	3	12	...	...	11	...	7	...	4	6
St. James'	80	74	92·5	16	2	18	...	...	25	..	10	9	4	...
St. James' Select ..	159	142	89·3	12	15	21	...	.	50	...	9	...	6	4
St. John's	36	33	91·6	16	2	7	...	...	17	...	1	6	3	1
St. Winefride's ...	27	23	85·1	13	2	3	...	..	8	..	1	6	1	1
Salisbury Road ...	142	122	85·9	45	4	12	2	...	38	...	12	13	5	6
Orrell	79	75	94·9	47	6	13	2	...	14	...	3	2	3	6
Totals ..	1018	888	87·2	322	49	132	5	1	256	4	68	44	40	33
Grand totals	3966	3301	83·2	2056	172	514	876	7	742	18	289	119	203	141
Percentages				51·8	4·3	12·9	22·0	·17	18·7	·45	7·2	3·0	5·0	3·5

EXAMINED, THE NUMBER FOUND WITH PHYSICAL DEFECTS, THE NUMBER OF PARENTS PRESENT AT THE EXAMINATIONS, AND DISCOVERED, FOR EACH SEPARATE DEPARTMENT OF THE VARIOUS SCHOOLS IN THE BOROUGH.

Defective Vision.	Nutrition below normal	Teeth		Nasal defects	Throat		Tonsils			Adenoids			Sub-maxillary Glands slightly enlarged	Enlarged Glands in neck	Ear disease			Hearing			Speech	Mental condition				Heart & circulation				Lungs		Nervous system	Tuberculosis					Rickets	Deformities	
		1–3 bad	4 or more bad		Mouth breathers	Congenital defects	Somewhat enlarged	Enlarged	Much enlarged	Small amount.	Definite	Marked			Wax	Suppurative disease: Present	Suppurative disease: Past	Moderate	Semi-deaf	Deaf		Fair	Dull	Very dull	Mentally defective	Functional	Organic	Anæmia: Slight	Anæmia: Well marked	Bronchitis	Deficient expansion		Pulmonary: *	Pulmonary: Definite	Osseous	Glandular	Other forms		Paralytic	Other
13	24	94	76	3	41	...	41	21	8	18	10	1	66	13	...	4	1	14	1	1	5	4	1	5	..	3	...	19	4	19	10	...	4	...	2	..	...	3	...	1
3	16	65	75	2	23	...	30	10	6	6	1	..	39	...	...	2	3	10	1	1	5	15	...	...	...	...	...	16	...	17	21	...	2	...	..	...	...	...	1	...
5	10	35	19	1	14	...	17	15	2	6	1	...	25	...	...	...	1	1	..	...	1	...	...	...	..	...	...	4	...	9	12	1	...	...	...	..	...	...	1	...
6	25	41	44	4	32	..	22	17	1	6	8	3	37	...	...	2	2	9	...	...	3	5	2	1	...	...	...	13	...	17	13	...	1	...	...	...	...	3	...	1
7	29	81	125	3	46	...	46	31	10	14	6	4	51	1	...	6	5	13	2	...	3	1	..	...	...	...	...	20	6	19	19	1	3	...	...	...	...	4	...	1
2	10	45	62	...	18	1	26	22	3	2	4	3	45	...	..	1	2	4	...	...	2	3	...	1	...	1	1	6	...	8	12	1	...	...	...	...	...	...	1	...
...	12	79	34	2	24	...	32	10	3	...	...	..	35	...	.	2	2	6	...	..	1	10	...	...	...	1	...	9	...	16	8	...	2	...	...	...	...	2	...	...
23	19	68	49	1	17	...	39	15	5	11	1	3	39	..	1	1	2	8	1	...	4	5	...	...	...	1	1	6	3	5	20	...	1	...	...	...	...	3	1	...
1	20	35	32	5	22	...	15	6	6	4	7	3	27	1	...	1	2	7	1	...	4	1	1	...	1	1	...	15	..	17	8	1	4	...	1	...	...	3	1	...
...	12	41	32	1	13	...	15	4	1	3	...	...	27	...	...	...	...	4	...	...	1	1	...	...	...	...	...	4	4	10	8	1	1	...	...	...	...	3	...	1
1	15	71	45	...	27	...	22	14	3	4	4	2	35	..	2	2	...	8	..	...	3	1	1	...	...	1	3	15	4	11	15	...	1	...	...	...	...	6	...	...
5	16	66	51	1	30	1	25	19	11	5	5	1	54	1	..	1	5	9	...	...	..	1	...	2	...	4	...	8	...	15	20	1	3	...	...	...	...	1	1	...
66	208	721	644	23	307	2	330	184	59	79	47	20	480	16	3	22	25	93	6	2	32	47	5	9	1	12	5	135	21	163	166	6	22	...	3	...	...	28	6	4
34	15	50	29	6	5	..	26	9	4	2	2	...	27	1	..	2	4	3	1	1	1	13	..	..	...	3	2	3	...	6	4	...	...	...	..	...	...	...	1	...
35	19	67	36	..	16	...	25	11	5	3	...	1	40	..	..	2	1	4	4	...	..	10	...	..	..	1	1	12	...	1	8	...	...	...	...	...	...	...	1	1
10	5	24	12	...	3	..	9	5	...	...	1	1	9	..	.	...	1	3	...	1	..	1	...	2	...	...	...	3	...	2	6	...	...	...	..	...	...	...	...	...
22	22	43	26	1	12	...	24	9	5	3	1	...	24	...	1	2	5	8	1	1	...	18	..	3	...	1	1	10	1	5	6	1	2	...	...	...	...	1	...	...
40	27	47	35	3	17	...	16	8	4	6	10	..	25	1	...	...	3	4	1	...	3	9	...	5	...	6	1	9	...	2	11	...	1	...	1	...	..	...	...	2
5	2	10	11	2	1	...	4	5	...	1	...	..	4	...	...	...	...	..	..	...	...	1	...	...	...	...	1	2	...	1	3	..	...	...	...	...	...	...	...	1
20	14	46	20	...	12	...	13	5	6	5	1	...	19	...	...	1	2	6	1	...	1	9	...	1	...	...	...	5	...	5	8	...	3	...	...	...	...	1	...	...
51	33	64	59	...	19	...	35	24	9	12	2	4	29	2	...	1	4	5	...	...	...	12	...	1	..	3	2	6	1	..	18	...	2	...	1	...	...	...	...	...
30	13	36	37	1	7	...	22	9	2	4	2	...	20	1	...	...	3	4	3	...	...	3	...	2	...	...	...	8	...	2	5	1	...	...	..	...	...	...	...	...
13	10	18	11	...	6	...	8	3	...	3	...	..	6	...	...	1	...	...	...	...	1	3	...	...	...	1	1	3	...	1	6	...	1	...	...	...	...	...	..	...
35	16	63	74	...	15	...	27	8	1	...	...	1	26	...	1	4	1	11	5	...	1	3	2	1	..	...	2	20	2	8	7	2	2	...	1	...	...	1	...	...
20	13	58	30	2	16	...	22	7	8	3	2	1	32	...	1	3	1	5	...	1	1	1	...	1	...	1	1	6	1	4	8	1	...	...	...	...	1	...	..	2
315	189	526	380	15	129	...	231	103	44	42	21	8	261	5	3	16	25	53	16	4	8	83	2	16	...	16	12	87	5	37	90	5	11	...	3	..	1	3	2	6
18	9	25	13	...	2	...	5	4	1	1	...	...	14	...	...	...	1	..	...	...	1	11	...	...	...	...	1	2	1	3	..	1	...	...	..	...	...	...	...	...
50	19	66	48	2	16	...	26	13	4	2	1	2	35	...	...	...	...	4	1	...	1	10	...	...	...	1	..	11	...	4	15	...	2	...	...	...	...	1	...	2
11	10	29	27	1	9	...	16	8	1	2	2	...	21	1	...	...	1	4	1	...	1	8	...	...	...	1	1	...	...	1	7	...	1	...	...	...	...	...	...	...
17	10	37	22	1	6	...	17	2	1	1	...	1	24	...	...	3	1	3	1	...	1	1	...	...	...	..	...	2	...	5	8	...	1	...	...	...	...	...	...	...
24	10	40	26	1	6	...	13	11	...	5	...	...	29	1	...	..	..	3	2	..	...	12	...	...	...	1	...	4	...	3	6	...	..	...	1	...	1	...	...	2
21	10	51	32	...	15	...	26	7	2	6	1	...	34	...	...	2	2	2	...	...	2	1	...	...	...	1	...	4	1	5	7	...	...	...	...	...	...	...	...	...
9	12	34	25	...	12	...	13	14	3	1	1	...	34	...	..	1	1	1	...	...	2	15	...	...	1	...	..	12	...	3	8	..	...	...	...	...	...	...	1
45	27	80	57	3	17	...	46	18	5	14	1	...	50	...	1	2	2	3	..	...	1	2	...	2	...	...	3	11	1	8	9	...	...	...	...	...	2	2	...	2
12	7	23	7	...	8	...	9	7	1	1	..	.	10	...	1	2	1	3	..	...	2	4	...	...	...	1	...	1	...	...	4	...	...	...	...	...	...	1	...	...
9	6	12	7	...	3	...	7	2	1	...	.	...	5	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	1	...
43	31	65	50	1	15	...	26	15	3	2	..	2	15	...	...	3	1	12	4	...	2	7	...	1	...	...	1	13	2	4	9	...	3	...	1	1	..	2	...	...
17	17	40	25	4	12	...	35	4	4	5	1	...	33	...	1	1	1	4	...	...	...	3	1	3	...	...	1	6	1	2	12	...	1	...	...	...	...	...	...	...
273	168	502	339	13	121	...	239	105	26	40	7	5	304	2	3	14	15	38	7	..	13	75	1	6	1	5	7	66	6	38	89	1	8	...	2	1	3	6	2	7
654	565	1749	1363	51	557	2	800	392	129	161	75	33	1045	23	9	52	65	184	29	6	53	205	8	31	2	33	24	288	32	238	345	12	41	...	8	1	4	37	10	17
		16·4	14·2	44·0	34·3	1·2	14·0	·05	20·2	9·9	3·2	4·0	1·9	·83	26·3	·57	·22	1·3	1·6	4·6	·73	·15	1·3	7·4	·28	1·1	·7	·83	·61	7·2	·8	6·0	8·6	·3	1·0	...	·2	·02	·1	·93	·25	·42

* The results of the further examination of these cases are shown in the body of the report.

The number in the third column of the large table gives the percentage of the children examined who were found to be suffering from physical defects. It reaches the high figure of 83·2%. Hence only 16·8% of the children attending the Public Elementary Schools are in perfect physical condition. The 83·2% does *not* include children who are found in an unclean condition or who have insufficient clothing or footwear and who are otherwise sound. It must, however, be stated that many physical defects, e.g., slight enlargement of the glands of the neck, may be of a minor character, and these are, of course, included in calculating the third column. The names of children who are suffering from the more serious defects which ought to receive treatment are placed upon the Following-up Registers and the number placed thereon is an index of the amount of actual disease found in the children. The names of 1,772 or 44·6% of those examined were added to these Registers during 1912.

The largest percentages of physical defects are, defective vision 16·4% of those examined; four or more unsound teeth 34·3%; mouth breathers 14%; enlarged tonsils 33·3%; and slightly enlarged sub-maxillary glands 26·3%.

It is to be noted that many children suffer from more than one defect.

Figures similar to these have been obtained by School Medical Officers throughout the country.

SUMMARY OF DEFECTS NOTED AT SPECIAL EXAMINATIONS.

The following table gives the result of the examinations of the 648 children who were presented for special inspection.

Nature of Defects.	St. Mary's.	Bedford Road.	Christ Church.	Gray Street.	Hawthorne Road.	Linacre.	St. James'.	St. James' Select.	St. John's.	St. Winefride's.	Salisbury Road.	Orrell.	Bootle Children at St. Alexander's	Total.
No. on School roll ...	920	1334	795	1001	974	953	1527	546	822	902	1445	805	463	12,487
Dirty Condition of Head and Body ...	4	7	0	2	3	1	5	1	4	4	8	0	3	42
External Eye Disease	5	4	3	12	3	4	9	1	9	7	34	0	2	93
Defective Vision ...	7	7	8	11	21	3	48	2	3	3	21	13	5	155
General Debility ...	3	1	0	2	0	0	3	1	1	3	4	2	1	21
Mouth-breathing ...	0	0	2	2	0	1	3	0	0	3	9	0	0	20
Enlarged Tonsils ...	6	4	2	6	3	0	6	2	1	1	14	2	2	49
Adenoids	2	2	2	6	2	1	2	1	2	1	11	1	1	34
Ear Disease	2	2	0	5	0	1	1	0	1	3	3	0	0	18
Defective Hearing ...	2	0	1	4	0	0	0	0	0	1	3	2	0	13
Defective Speech ...	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Mental Condition ...	2	0	0	2	0	0	1	0	1	0	4	0	0	10
Nervous System ...	1	2	2	4	0	0	2	0	0	1	4	0	0	16
Heart & Circulation	5	2	0	3	1	0	3	1	2	2	7	2	1	29
Lungs...	4	2	1	8	1	0	5	2	3	8	12	2	3	51
Tuberculosis	3	1	3	6	0	0	4	0	2	3	6	1	5	34
Ringworm...	4	5	15	4	2	0	4	1	11	1	17	1	9	74
Impetigo	7	4	2	7	0	0	3	0	0	2	21	2	2	50
Scabies	1	0	0	2	0	0	1	0	2	0	2	0	0	8
Various	5	3	1	10	0	1	11	1	2	2	13	1	2	52
Total No. of defects	63	46	42	97	36	12	112	13	44	45	196	29	36	778
Number of Children Examined	56	38	35	75	31	11	98	10	36	42	160	27	29	648
% of Number on School Roll	6·0	2·8	4·4	7·5	3·1	1·1	6·4	1·8	4·3	4·6	11·0	3·3	6 2	5·1

The large percentage of children presented from certain schools shows the keen interest which is there taken in the welfare of the children; it does not follow that because a small percentage of the children have been sent for examination from other schools that the children in those schools are in a better physical condition, though it is to be expected that a smaller percentage will be sent from schools attended by children of better class parents. By far the largest numbers of special examinations were for defective vision and other eye diseases; ringworm, impetigo, tuberculosis, enlarged tonsils and adenoids were found in many other cases.

Irregular Attenders.—Thirty-nine children inspected at the routine examinations were stated by the teachers to be irregular attenders. Many of the children specially examined were referred to the School Medical Officer because of their irregular attendance. During 1912, twenty-four children were absent on medical grounds for more than six months: particulars of these cases are kept in a "Chronic Sickness" Register. In five of these, ringworm of the head caused the absence: in four others, suspected or definite tuberculosis.

HEIGHT AND WEIGHT.

The following table gives the average height and weight of the children examined at the routine inspections distributed according to age and sex and compared with the anthropometric standard for England and Wales obtained by the Committee of 1883. In all cases the children were weighed and measured without boots. The boys were weighed after their coats had been removed.

Age Last Birthday.	Number of children Examined.		HEIGHT (in Centimetres.*)						WEIGHT (in Kilograms†).					
			Males.			Females			Males.			Females.		
	Males	Females	Anthropometric standard.	Average height of children examined.	% above or below standard.	Anthropometric standard.	Average height of children examined.	% above or below standard.	Anthropometric standard.	Average weight of children examined.	% above or below standard.	Anthropometric standard.	Average weight of children examined.	% above or below standard.
3	15	19	88·9	91·4	+1·0	86·4	105·4	+12·1	15·4	14·9	—3·3	14·2	17·2	+12·1
4	59	84	94·0	95·5	+1·0	91·4	91·1	—0·4	16·7	15·6	—6·6	16·3	14·1	—13·5
5	533	486	101·6	102·2	+1·0	99·0	101·4	+1·0	18·1	17·4	—3·9	17·6	16·9	—4·0
6	258	243	109·2	106·4	—2·6	106·6	105·5	—1·1	20·1	18·7	—7·0	18·9	17·9	—5·3
7	214	245	116·8	116·9	+1·0	111·7	110·5	—1·1	22·5	20·6	—8·5	21·5	20·1	—6·6
8	141	166	119·4	117·9	—1·3	118·0	111·5	—5·6	24·9	22·8	—8·5	23·5	20·9	—11·1
9	85	104	126·4	123·1	—2·7	123·8	119·9	—3·0	27·4	25·2	—8·1	25·1	23·6	—6·0
10	80	52	131·4	127·6	—2·9	129·5	125·3	—3·3	30·6	27·1	—11·5	28·1	25·9	—7·9
11	84	43	135·9	132·4	—2·6	134·6	134·1	—0·4	32·6	30·1	—7·7	30·8	29·6	—3·9
12	197	193	139·7	137·3	—1·8	141·0	136·6	—3·2	34·8	30·0	—13·8	34·7	31·8	—8·4
13	294	334	144·8	139·3	—3·8	146·7	141·6	—3·3	37·4	33·7	—9·9	39·4	35·4	—10·2
14	20	16	150·5	144·6	—4·0	151·8	137·8	—9·3	41·7	36·3	—13·0	43·8	37·2	—15·1

* 1 centimetre = 3·9 inch. † 1 Kilogram = 2·2 lbs.

It is to be noted that in practically all cases, Bootle children fall short of the average weight and height

Nutrition.—It is difficult to lay down a fixed standard of normal nutrition, and the estimation of sub-normal nutrition is a matter for personal judgment unless elaborate measurements or calculations which are unsuitable for ordinary use are made.

At the beginning of the year the following experimental classification was adopted; excellent, good, normal, below normal, bad. The general appearance of the children was mainly taken into consideration in assigning them to any particular group. It was found at the end of the year that no child had been placed under the headings "excellent" or "bad"; the nutrition of 80·9% was regarded as normal, 4·9 as good, and 14·2 as below normal.

An investigation was made concerning the causes of sub-normal nutrition. The following table gives an analysis of 289 consecutive cases (routine and special):—

General debility associated with lung disease (bronchitis or suspected pulmonary tuberculosis)	94	or 32%
Sub-normal nutrition associated with mouth-breathing or adenoids	57	,, 20%
Sub-normal nutrition associated with cardiac murmurs (probably functional in all cases)...	8	,, 3%
Sub-normal nutrition associated with anæmic conditions due to various causes such as "worms," disturbance of digestion due to improper feeding, bad teeth, etc. ...	66	,, 23%
Sub-normal nutrition with no definite physical signs of organic disease (12 of these occurred in phthisis contacts)	49	,, 17%
Sub-normal nutrition associated with neglect	15	,, 5%
	289	

It is interesting to note the large percentage of cases which are associated with diseases of the lungs. It is not generally recognised that adenoids are often associated with deficient bodily growth, though it is fairly well known that they interfere with mental development. The above figures show that careful investigation will reveal a definite cause in over four-fifths of ill-nourished children.

All the children whose parents could not afford to obtain sufficient nourishment for them were provided with free breakfasts.

The names of all ill-nourished children are placed upon the Following-up Registers; the children will be weighed regularly. Although I am loth to suggest anything which will increase the burden of non-professional work performed by teachers, yet I must mention the great value of the yearly weighing of all children. This might be done as part of a school lesson on the subject. Any failure to gain weight, or notable variation from the normal, should be reported. In this way, many pre-tuberculous children would be singled out for special examination.

CLEANLINESS AND CONDITION OF THE SKIN.

As will be seen from the following table the number of children reported to be dirty is increasing.

These figures relate to routine cases.

	1908.	1909.	1910.	1911.	1912.
Dirty condition of body or head	?	13	27	157	296
Verminous ,, ,, (flea-bitten, etc) ...	?	38	77	101	218
,, ,, head (nits, etc.) ...	?	33	48	375	883
Totals	152	84	152	633	1,397
Number examined	1,565	2,550	2,049	2,920	3,966

It must not be inferred from these figures that the children are not so clean as in former years: the increased number is solely due to the fact that in 1912 every child was carefully examined and recorded as "dirty" if any signs of vermin or nits were found. Very marked cases of neglect are now seldom seen.

An analysis of the records of the routine inspections shows that under the heading "Cleanliness or otherwise of the body," 87% of the children were recorded as "clean," 5·9% were "somewhat dirty," 1·5% were "dirty," and none "very dirty"; 5·4% were flea-bitten, viz., 6·3% of the infants examined, 4·4% of the girls and 5% of the boys. On examining the heads, nits were seen in 430 infants or 22·7% of those examined, and in 441 or 41·6% girls; only 5 boys had nits in their hair. In one girls' department 55·9% of those examined had nits in their hair; in another 53·5%.

These figures reveal a disgusting state of affairs and though it is becoming well known that throughout the country 30 to 40% of "leaving" girls have dirty heads, it is very difficult to effect any marked improvement. It is necessary that each case shall be "followed-up" at home: a visit there often reveals a home which is in as dirty a condition as are the children. Several mothers have informed the Lady Inspectors that "nits are a sign of good health." A tactful Lady Visitor can often improve simultaneously the condition of the home and the child. A leaflet on how to clean the hair is given to each child who is found to be dirty. It is with some misgiving that parents who are so careless as to allow their children to become verminous are instructed to use paraffin oil for the purpose of cleansing the hair, and an effort was made during the year to find a substitute. A leaflet was issued which instructed the parents to use Sassafras, and no mention was made of paraffin oil; but with few exceptions, they could not be induced to give the former a trial.

In order that extremely dirty children may be compulsorily cleansed, the provisions of Section 122 of the Children Act have been put into operation. Details of the Committee's Scheme were published in the School Medical Officer's Report for 1911. During 1912, 76 "First Notices" were received. From each of two Schools more than 20 notices, from three others, 12, 7, and 4 respectively, from each of two schools 2, and from five schools none were received. The Statutory Notice issued by the School Medical Officer had the desired effect in the majority of these cases. Thirteen Second Notices were received and nine children were cleansed.

Three children who had been cleansed last year were again found in a verminous condition. Their parents were prosecuted, and a fine of 2/6 and 2/6 costs (or three days' imprisonment) was imposed in each case. These prosecutions had a salutory effect on the parents of other dirty children in the neighbourhood. The Medical Inspector examines each child before and after the compulsory cleansing in order that he may give evidence if proceedings become necessary, as it is considered that the influence of the School Nurse with the parents would be to some extent undermined if she were regularly to give evidence in such cases. In connection with the cleanliness of the children, attention may be called to the fact that there are two Public Baths in the Borough. The Baths' Superintendent has kindly furnished the

following information. The number of tickets issued to school children in 1912 at the Balliol Road Baths was—

	Club Tickets (3s.)	1d. Tickets.	½d. Tickets.
Boys ...	120 ...	4,210 ...	1,110
Girls ...	116 ...	1,560 ...	—

Boys are admitted to Marsh Lane Swimming Baths free every day, except Wednesdays and Saturdays when 1d. is charged, and a very large number use these baths particularly on the free days. In connection with the majority of the Senior Departments of the schools there is a swimming club, but many take 1d. tickets instead of the club tickets.

In considering the subject of cleanliness, it must be noted that in most of the houses in the Borough, under a weekly rental of 8/-, there is not a bath. Children can obtain a hot bath at the Marsh Lane Public Baths for 1d.

There are baths and ample facilities for cleanliness at the Day Industrial School; these are regularly and fully utilised. Shower baths have been installed in a considerable number of Public Elementary Schools in various towns throughout the kingdom.

Before leaving this subject, I would point out the necessity for protecting the children of careful parents from contamination from dirty children. It is very desirable that each child should have a separate numbered peg in the cloakroom, and that there should be sufficient space between the pegs to prevent the clothes from coming into contact.

FOOTWEAR AND CLOTHING.

Footwear.—87·6% of the children inspected at the routine examinations wore satisfactory boots or shoes, and 2·1% wore clogs. The footwear of 7·2% was in need of repair, and 3% of the children were bare-footed. During the year the School Canteen Committe gave 700 pairs of clogs and 300 pairs of stockings to necessitous cases.

Clothing.—At the routine inspections 80·8% of the children were adequately clad. In 18·7% the clothing was said to be "Fair," and in only 18 cases or ·45% was the clothing insufficient. The girls are found to be better clothed than the boys. Boys' clothing is generally much dirtier than that of the girls. It is the dirtiness of the clothing which frequently gives rise to an unpleasant smell on entering a fairly ventilated class-room in a boys' school. In a similarly ventilated room in a girls' department, the air

is comparatively fresh. Some children, especially those who are supposed to have "weak chests" suffer from a superabundance of clothing which prevents effective expansion of the lungs and serves to make the chest still "weaker." It is difficult to persuade careful though ignorant mothers that to overclothe children is often as harmful as to underclothe them.

SKIN DISEASES.

One hundred and sixty-two cases of skin diseases, excluding ringworm, were noted at the routine examinations: these include 12 cases of impetigo. Among those specially examined there were 50 cases of impetigo and 8 of scabies.

RINGWORM.

Ten cases were seen at the routine inspections, and 74 at special examinations. The following table gives the age and sex distribution of the 84 cases. Twenty of the children attended one school, 14 another, and 11 each of two others. In each of four families two cases occurred, and in one family there were three.

	Head.		Body.	
Age.	Boys.	Girls.	Boys.	Girls.
3 ...	— ...	—	— ...	1
4 ...	1 ..	—	— ...	—
5 ...	4 ...	1	1 ...	—
6 ...	5 ...	3	1 ...	1
7 ...	3 ...	3	5 ...	1
8 ...	6 ...	2	5 ...	2
9 ...	5 ...	3	2 ...	2
10 ...	3 ...	2	1 ...	—
11 ...	3 ...	—	1 ...	2
12 ...	4 ..	1	3 ...	—
13 ...	3 ...	—	1 ...	3
	37 ..	15	20 ...	12
	52		32	

During the year an effort was made to discover every case of ringworm of the head, and it is believed that all cases are now under observation. Ringworm cases should be picked out for special examination. No cases should be found at the routine inspections. Ringworm of the head frequently

necessitates an absence from school of many months and the annual loss of grant due to this disease is considerable. The excluded children are periodically examined, and should not be allowed to attend school until a medical certificate is obtained stating that they are free from infection. It is a question whether it would not be advisable to form "ringworm" classes for certain groups of schools in order that the education of these children might not suffer by reason of the long duration of the disease. Certain forms of treatment might also be given to these cases by the School Nurse.

EXTERNAL EYE DISEASES.

The number of children found at the routine examinations to be suffering from external eye diseases can be seen from the following table :—

Age.	No. Examined		Blepharitis.		Conjunctivitis		Corneal Disease.		Muscular Defect.		Total.	
	Males.	Females	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
3	15	19	1	—	2	—	—	—	—	—	3	—
4	59	84	3	2	2	2	—	1	2	2	7	7
5	533	486	6	8	23	15	—	1	24	18	53	42
6	258	243	3	11	6	18	1	3	9	12	19	44
7	214	245	2	8	6	5	2	1	13	8	23	22
8	141	166	2	6	5	—	—	2	8	8	15	16
9	85	104	2	3	—	—	—	—	5	1	7	4
10	80	52	—	—	2	—	—	—	2	2	4	2
11	84	43	3	—	2	—	1	—	3	3	9	3
12	197	193	4	4	1	4	3	1	3	2	11	11
13	294	334	4	3	4	7	2	5	11	5	21	20
14	20	16	—	—	—	—	1	—	—	—	1	—
15	1	—	—	—	—	—	—	—	—	—	—	—
	1,981	1,985	30	45	53	51	10	14	80	61	173	171
	3,966		75		104		24		141		344	
	Percentages ...		1·8		2·6		·6		3·5		8·5	

Many of the cases of blepharitis and conjunctivitis were slight. The 24 cases of corneal disease include 10 cases of nebulæ or leucomata ; one was associated with nystagmus. All cases of squint are recorded under the heading "Muscular Defect." It is important that all cases of squint should be presented by the teacher for examination as special cases, because unless glasses are obtained, the vision in the squinting eye rapidly deteriorates. In one

department, while the school building was being inspected, 9 cases of squint were seen. They did not wear glasses and had not been presented for special examination. Ninety-three cases of external eye diseases were seen at the special examinations.

VISION.

The vision of all the routine cases in the Junior and Senior Departments was examined by Snellen's types. Each eye was tested separately. A spectacle frame with an opaque disc was used for this purpose. The following tables give the results of the examinations. The upper figure is the distance in metres between the child and the test type. The lower figure is the number of metres from which letters of a certain size should be seen by a person with normal vision, e.g., $\frac{6}{6}$ is normal vision, $\frac{6}{18}$ means that the smallest type which can be seen from a distance of 6 metres should normally be seen at a distance of 18 metres; that is, the vision is approximately one-third normal.

TABLE SHOWING SEPARATELY THE VISION IN EACH EYE OF THE ROUTINE CASES.

BOYS.

Age.	Number Examined	6/6		6/9		6/12		6/18		6/24		6/36		6/60		Light Only		Blind	
		R	L	R.	L.	R	L.	R.	L	R	L.	R.	L.	R	L.	R.	L.	R.	L.
6	81	40	37	24	23	9	12	4	4	4	3	..	1	..	..	..	..	..	1
7	158	65	60	53	53	19	18	18	18	1	8	2	1	..	..	..	..	..	..
8	138	66	56	55	53	10	17	4	8	1	1	2	1	..	2	..	..	..	..
9	83	46	37	28	31	3	7	5	3	1	2	..	1	..	2	..	..	..	..
10	80	45	31	18	28	5	7	9	10	2	3	..	1	..	..	..	..	..	..
11	83	51	39	21	27	2	7	4	6	3	2	2	1	..	1	..	..	..	..
12	197	109	90	43	54	19	25	18	16	6	6	2	4	..	..	..	1	..	1
13	294	170	137	69	89	23	30	27	21	2	12	2	2	..	1	..	..	1	2
14	20	10	9	7	7	3	..	..	2	..	1	..	1	..	..	..	..	..	..
15	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	1,135	604	497	318	365	93	123	89	88	20	38	10	13	..	6	..	1	1	4
	%	53·2	43·8	28·0	32·2	8·2	10·8	7·8	7·8	1·8	3·3	·9	1·2	..	·5	..	·1	·1	·3

R. = Right. L. = Left.

GIRLS.

Age.	Number Examined.	6/6		6/9		6/12		6/18		6/24		6/36		6/60		Light Only		Blind	
		R.	L.	R.	L.	R.	L	R.	L	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.
6	64	34	34	19	19	5	4	5	6	..	..	1	1	..	..	..	..	..	..
7	213	96	81	79	80	19	33	13	8	4	7	1	3	1	1	..	..	..	..
8	157	82	65	44	52	13	23	11	7	7	6	..	3	..	1	..	..	..	..
9	102	55	46	31	40	4	7	9	6	2	1	1	2	..	..	..	..	..	..
10	52	29	22	16	16	3	6	4	7	..	1	..	..	..	..	..	..	..	..
11	42	17	12	15	18	3	3	5	5	1	3	..	..	1	1	..	..	..	..
12	193	98	74	58	65	9	21	16	22	10	8	..	3	1	..	1	..	..	..
13	334	159	138	91	101	30	36	31	26	13	16	5	9	5	6	..	..	..	2
14	16	8	6	4	5	1	2	1	1	1	1	..	..	1	1	..	..	..	..
Totals	1,173	578	478	357	396	87	135	95	88	38	43	8	21	9	10	1	..	..	2
	%	49·3	40·7	30·4	33·7	7·4	11·5	8·1	7·5	3·2	3·7	·7	1·8	·8	·9	1	..	..	·2

R. = Right. L. = Left.

TABLE SHOWING NUMBER WHOSE VISION WITH BOTH EYES OPEN WAS 6/12 OR WORSE.

BOYS.

Age	Number Examined.	6/12	6/18	6/24	6/36	6/60 and worse.
6	81	4	7	1	..	..
7	158	14	5	1	..	..
8	138	9	3	..	..	..
9	83	3	3	..	..	..
10	80	7	5	..	...	..
11	83	4	7	..	..	..
12	197	16	8	5	2	..
13	294	20	15	1	2	..
14	20	..	0	1	..	..
15	1	..	..	..	..	..
Total	1,135	77	53	9	4	0
	Percent	6·8	4·7	·8	·3	..

GIRLS.

Age.	Number Examined.	6/12	6/18	6/24	6/36	6/60 and worse
6	64	3	2	..	..	..
7	213	6	5	1	..	..
8	157	8	8	4	..	..
9	102	4	5	2	..	..
10	52	2	2	..	..	...
11	42	4	3	..	..	1
12	193	7	12	4	1	..
13	334	19	20	9	3	4
14	16	1	2	..	..	1
15	..	..	..	..	..	..
Total	1,173	54	59	20	4	6
	..	4·6	5·0	1·7	·3	·5

% of boys whose vision was worse than 6/12 = 12·6.
% of girls whose vision was worse than 6/12 = 12·1.

EXAMINATION OF SPECIAL CASES. VISION, WITH BOTH EYES OPEN, OF THOSE FOUND DEFECTIVE.

Ages.	6/9		6/12		6/18		6/24		6/36		6/60		Unable to read 6/60		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
6	1	..	..	2	..	1	1	..	..	..	1	..	..	1	3	4
7	1	5	5	4	..	6	..	2	1	..	..	..	..	..	7	17
8	5	3	..	..	..	5	..	..	..	..	..	..	..	..	5	8
9	2	8	2	4	2	4	..	2	..	2	1	..	..	..	7	20
10	3	2	3	7	5	2	..	..	1	..	1	2	..	..	13	13
11	3	5	1	..	1	3	2	..	..	..	..	..	..	..	7	8
12	..	2	1	3	2	2	..	..	..	..	1	1	..	..	4	8
13	..	6	..	..	1	3	..	..	..	..	..	1	..	..	1	10
	15	31	12	20	11	26	3	4	2	2	4	4	..	1	47	88
	46		32		37		7		4		8		1		135	

In addition to these 135 cases, there were six others who could see 6/6 when both eyes were open; they could see normally with one eye, but the vision was defective in the other to the following extent, viz :—three 6/9, one 6/18, one 6/36, and one practically blind. In 14 cases of squint, the vision could not be tested because the patients were unable to read. Seven cases referred for examination because of a supposed visual defect were found to be able to see normally. Occasionally older children feign to be unable to see in order to escape their lessons.

As a general rule if 6/12 could not be read with each eye separately, the parent was asked to take the child to a doctor and have the eyes treated. In some cases, where symptoms of eye-strain were present, children with a less defect than the above-mentioned were recommended to seek treatment. At the time of examination 37 children were wearing suitable glasses. In some towns great attention is paid to the subject of vision, and the vision of all children aged 8 to 12 is annually tested by the teachers.

Copies of the report of the Committee of the British Association on "The Influence of School Books upon Eyesight" have been supplied to the Head Teachers, whose duty it is to select and order the books used in their schools. It is hoped that the publication of school books below the standard suggested will cease.

TEETH.

The condition of the teeth shows little or no improvement. The following table shows the results of the routine examinations :—

Age.	Number examined.		Number with good teeth.		Number with 1-3 bad teeth.		Number with 4 or more bad teeth.		Percentage. with good teeth.		Percentage. with 4 or more bad.	
	Males	Females	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
3	15	19	10	18	4	1	1	—	* —	* —	* —	* —
4	59	84	36	41	14	28	9	15	61·0	48·8	15·2	17·8
5	533	486	165	138	194	206	174	142	30·9	28·3	32·6	29·2
6	258	243	39	46	95	103	124	94	15·1	18·9	48·0	38·6
7	214	245	38	31	93	104	83	110	17·7	12·6	38·7	44·8
8	141	166	28	19	61	70	52	77	19·8	11·4	36·9	46·3
9	85	104	13	17	34	40	38	47	15·2	16·3	44·7	45·1
10	80	52	14	6	40	28	26	18	17·5	11·5	32·5	34·6
11	84	43	10	5	50	25	24	13	11·9	11·6	28·5	30·2
12	197	193	40	38	96	109	61	46	20.3	19·6	30·9	23·8
13	294	334	54	42	152	186	88	106	18·3	12·5	29·9	31·7
14	20	16	2	4	8	7	10	5	* —	* —	* —	* —
15	1	—	—	—	1	—	—	—	* —	—	* —	—
	1,981	1,985	449	405	842	907	690	673	22·6	20·4	34·8	33·9
	3,966		854		1,749		1,363					

* Inferences from these percentages would be unreliable owing to the small numbers involved.

The condition of the teeth of the children examined is very bad. Parents pay practically no attention to their children's teeth unless they give rise to toothache ; then they sometimes have them extracted. Very few children use a tooth-brush regularly and still fewer carry out the recommendations contained in the leaflet "On the Care of the Teeth" which is given to every child at the time of medical inspection. The large amount of dental caries is undoubtedly due to ignorance of the fact that starchy food, which is the staple diet in so many families, collects between the teeth and there undergoes acid fermentation, with accompanying erosion of the enamel. This starchy material which collects during the course of the meal may be removed either naturally, by concluding a meal with cleansing foods such as celery, radish, toast, crusts, apples, water, etc., or artificially by the use of a tooth-brush.

In a certain district in East London, tooth-brushes were given to the children by the Local Education Authority. Six months later they were

found to be in regular use by most of the scholars. Sir George Newman lays stress on the following requirements in any attempt to prevent excessive dental caries.

1. Improve the present unsuitable diet.
2. Maintain the mouth in a clean condition.
3. Arrest disease at its onset by treating the teeth of children at the age of 6 or 7, when the permanent teeth are appearing.

NOSE.

Fifty-one defects were reported at routine examinations. The majority were cases of nasal discharge associated with adenoids.

ADENOIDS, MOUTH-BREATHERS, ENLARGED TONSILS.

At the routine inspections 6·7 % had symptoms, more or less marked, of adenoids, 14 % were mouth-breathers, and 33·3 % had enlarged tonsils. The following table gives particulars of these cases.

Age.	Number examined	Adenoids.				Mouth Breathers	Percentage.	Tonsils.			Percentage with enlarged Tonsils.
		Small Am't.	Definite	Marked; operation required.	Percentage with Adenoids			Slightly enlarged	Much enlarged	Very much enlarged	
3	34	4	—	—	—	6	—	3	3	—	—
4	143	3	1	1	3·4	10	6·9	26	5	3	23·7
5	1,019	31	22	11	6·2	149	14·6	163	96	35	28·8
6	501	23	14	5	8·3	96	19·1	97	56	15	33·5
7	459	25	13	4	9·1	83	18·0	90	63	14	36·3
8	307	18	5	5	9·1	46	14·9	74	24	9	34·8
9	189	14	6	1	11·1	37	19·5	40	19	10	31·2
10	132	9	—	—	6·8	15	11·3	34	16	5	41·6
11	127	8	1	1	7·8	19	14·9	30	12	5	37·0
12	390	9	7	2	4·6	40	10·2	85	39	11	34·6
13	628	17	6	3	4·1	54	8·5	150	54	22	35·9
14	36	—	—	—	—	2	—	7	5	—	—
15	1	—	—	—	—	—	—	1	—	—	—
	3,966	161	75	33	6·7	557	14·0	800	392	129	33·3
%		4·0	1·9	·8				20·2	9·9	3·2	

In addition to the above, 49 cases of enlarged tonsils, and 34 of adenoids were seen at the special examinations.

Adenoids.—Most of the 6·7 % suffering from adenoids are also included in the 14 % who are mouth breathers. The diagnosis of adenoids is presumptive only. It is not considered desirable to palpate the growth.

Table showing the percentages of boys and girls who suffer from adenoids

	Small.	Definite.	Marked; operation required.
Boys	4·6	1·3	1·06
Girls	3·4	2·4	·6

Mouth-Breathers.—An endeavour was made to keep under observation 557 mouth-breathers discovered at the routine inspections and 20 at the special examinations. In the majority of cases, mouth-breathing was due to the presence of an adenoid growth at the back of the nose, or to enlargement of the tonsils.

Printed instructions on "Breathing Exercises" were sent to the parents. The teachers are requested to pay particular attention to those children who usually breathe through the mouth. It is desirable that breathing exercises should be performed in the open-air whenever possible. When exercises are taken indoors, the windows should be widely open. It is impossible to properly carry out the exercises unless the nose is clear. It is desirable not only from a health, but also from an æsthetic point of view, that each child should be provided with a handkerchief. Of 2,225 senior boys, 937 or 42 % possessed handkerchiefs; of 1,866 senior girls, 841 or 45 %, and of 1,462 infants, 897 or 61 %. In one infants' department 80 children out of 106 did not possess a handkerchief, but in another only 33 out of 186 were without.

Enlarged Tonsils.—This defect is often associated with adenoids: 129 children were in urgent need of operative treatment.

ENLARGED GLANDS.

Some enlargement of the glands of the neck is common, but it is rare to find marked enlargement. The following table gives the percentage results of the 3,966 examinations.

	Submaxillary.	Anterior Cervical.	Posterior Cervical.
Slightly enlarged	26·3	10·9	12·9
Enlarged	·05	·2	·2

The glands were reckoned to be "enlarged" when the enlargement was easily visible. If the glands were readily palpable, but not visible, they were

said to be "slightly enlarged." The principal causes of this condition are carious teeth, enlarged tonsils and adenoids, verminous heads, discharging ears, and sores on the head and face.

EAR DISEASE AND HEARING.

The following table shows that 9 or ·2 % of the children at the routine examinations were somewhat deaf because of an accumulation of wax in the ears, 52 or 1·3 % suffered from discharging ears, while 65 or 1·6 % had impaired hearing as the result of a former ear disease. The hearing of 184 or 4·6 % was moderate. Twenty-nine or ·73 % were semi-deaf and 6 or ·1 % were deaf.

Ages.	No. Examined.		Wax.		Suppurative Disease. Present.		Suppurative Disease. Past.		Hearing. Moderate.		Hearing. Semi-deaf.		Hearing. Deaf.	
	Males	Fe'ms	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
3 to 5	607	589	1	2	6	6	7	8	24	22	1	2	—	2
6 ,, 8	613	654	1	2	9	10	4	16	37	47	5	10	—	1
9 ,, 11	249	199	1	1	6	2	6	6	12	10	1	1	—	—
12 ,, 15	512	543	1	—	7	6	6	12	12	20	2	7	—	3
	1,981	1,985	4	5	28	24	23	42	85	99	9	20	—	6
%			·2	·2	1·4	1·2	1·1	2·1	4·2	4·9	·4	1·0	—	·3
	3,966		·2		1·3		1·6		4·6		·73		·1	

In the great majority of cases, impairment of hearing was associated with the presence of enlarged tonsils and adenoids which frequently leads to inflammation in, and discharge from, the middle ear. It is generally a difficult matter to test the hearing accurately, for owing to the position of the rooms in which the examinations are conducted, a sufficient amount of quietude cannot be obtained. It is not found practicable to use the forced whisper test, because it is often difficult to obtain the required 20 feet, it takes longer time than the watch test, and more assistance is necessary. The hearing is first tested by asking the children in a low tone the various questions usually asked during the inspection. If the child does not hear these well, or if the teacher states that the child's hearing is not good, the watch test is used. The watch used should normally be heard at a distance of just over 50 inches. If it is heard at more that 10, but less than 50 inches, the hearing is said to

be moderate; if under 10 inches the child is reported to be semi-deaf, and if it is not heard until the watch is pressed against the ear, deaf. A tuning fork is used to differentiate in older children between nerve and bone deafness. No case of nerve deafness was discovered. It is frequently found that one ear is deaf and the other normal.

SPEECH.

Twenty-four cases of lisp were noted at the routine inspections, 15 of stammering, and 14 of other defects.

MENTAL CONDITION.

Of the 2,769 children over the age of 6 years examined at routine inspections, the mental condition of 247 or 8·8 % was adversely reported upon. 205 or 7·4 % as fair, 8 or ·28 % as dull, 31 or 1.1 % as very dull and 2 as mentally deficient.

The following table gives the age and sex distribution of these cases.

	MALES.					FEMALES.				
Ages.	No. examined	Fair.	Dull.	Very dull.	Mentally deficient.	No. examined	Fair.	Dull.	Very dull.	Mentally deficient.
6 to 8	613	44	6	6	—	654	28	1	7	1
9 ,, 11	249	14	—	5	—	199	22	1	5	—
12 ,, 14	511	46	—	—	1	543	51	—	8	—
	1,373	104	6	11	1	1,396	101	2	20	1
Percentages		7·5	·4	·8	·08		7·2	·14	1·4	·07

In addition to the above, the mental condition of 10 special cases was unsatisfactory. During the year, 6 children were permanently excluded from school because of mental deficiency: in two of these, this was associated with epileptic fits. In gauging the mental condition of the children, the assistance of the teachers is necessary. The assessment of the degree of mental "deficiency" is largely a matter of opinion. Comparison may be made with the results of other observers by noting the attainments of the subject of the examination, and comparing them with those of normal children of a particular age. Children who have only reached the standard of those two

or three years below their age, were regarded as of "fair" mental capacity. The schedule of medical examination of children for mental defect given in the report of the Chief Medical Officer of the Board of Education for 1911 is used for recording details of a few selected cases. There are probably about 30 ineducable imbeciles in Bootle, and a still larger number of very dull children who do not profit greatly by the instruction given in the ordinary classes of the public elementary schools.

There are two special classes for backward girls in the Borough, and they are doing very valuable work. The scholars are girls aged 12 or 13 who are backward or mentally dull. The backwardness is in many cases due to prolonged absence through illness, the migratory habits of the parents, etc. A record is kept of the physical defects and mental attainments of the pupils, of their proficiency in the subjects taught and of the progress made. Similar classes for backward boys would fulfil a useful purpose.

HEART AND CIRCULATION.

At the routine inspections 24 cases or ·6 % of organic heart disease were noted, of which 4 were probably congenital. Cardiac murmurs, the origin of which was probably functional, were heard in an additional 33 cases or ·83 %. The following table gives particulars of the age groups in which these cases occurred.

	MALES.			FEMALES.		
Ages.	No. examined.	Functional	Organic.	No. examined.	Fuctional.	Organic.
3 to 5	607	3	1	589	5	1
6 to 8	613	2	1	654	3	4
9 to 11	249	1	3	199	2	2
12 to 15	512	4	4	543	13	8
	1,981	10	9	1,985	23	15
Percentages ..		.5	·4		1·2	·75

The great predisposing cause of organic heart disease in children is rheumatism. St. Vitus' Dance which is a rheumatic manifestation is also often associated with heart disease. In 7 of the 20 cases of acquired organic heart

disease, there was a definite history of rheumatism. It is not sufficiently recognised that the outward signs of rheumatism in children are often very unobtrusive, and consist only of vague "growing pains," which, though so slight, are frequently accompanied by an inflammatory process in the valves of the heart, from which the patient never completely recovers.

It is essential that rheumatic scholars should be protected from damp and cold as much as possible, and they should receive medical attention when attacked by "growing" pains. Five rheumatic children were excluded from school for some weeks. In three cases of heart disease, it was necessary to order a discontinuance of physical exercises, and in six others, certain exercises, particularly trunk bending, running and jumping were prohibited until the re-examination. Twelve cases of rheumatism, unaccompanied by definite heart disease, were discovered at the routine inspections, and kept under observation during the year. 288 cases or 7·2% of slight, and 32 or 8% of well-marked, anæmia were seen at the routine examinations. At the special examinations 10 cases of organic heart disease were seen, in 5 of these there was a history of rheumatism, and in 2 of St. Vitus' Dance.

LUNGS.

238 or 6% of the children inspected at routine examinations were found to be suffering from bronchial catarrh or bronchitis. 163 of these or 8% of the 1,889 examined, occurred in infants. An additional 345 or 8·6% of the children were reported to have deficient expansion of the lungs. Breathing exercises are necessary for these children. Mention is made of phthisis under the heading "Tuberculosis."

NERVOUS DISEASES.

Twelve defects were discovered at routine inspections, including one case of epilepsy and two of paralysis. At the special examinations 16 cases were seen. These include four cases of St. Vitus' Dance, and two of epilepsy. Two cases of epilepsy associated with mental deficiency were excluded permanently; another was excluded permanently because of the severity and frequency of the fits.

TUBERCULOSIS.

Results of the 3,966 routine examinations.

Fifty-four children were noted to be suffering from Tuberculosis. Twenty-seven or ·68% were regarded as having an *active* focus of disease, in 17 or ·42% the lungs were affected, in 5 or ·12% the bones in 1 or ·025% glands, and in the remaining 4 or ·1% the skin (lupus): 17 cases, all pulmonary, are still regarded as doubtful, the number including some children who were seen for the first time towards the close of the year. It was finally decided that 10 were not suffering at the close of the year from active tuberculosis.

Of the 648 children who were examined as special cases during the year, 62 were kept under observation provisionally as cases of tuberculosis, 34 were on further examination, definitely classed as tuberculous, namely 26 pulmonary, 3 osseous and 5 glandular. In 14, the diagnosis was still doubtful at the end of the year, viz., 11 pulmonary and three cases of suspected tabes mesenterica; in the remaining 14 it was decided after re-examination and observation that they were probably non-tuberculous.

A. Pulmonary. The diagnosis of pulmonary tuberculosis in children is often a matter of great difficulty. The indications upon which most reliance have been placed in the examinations are the general condition and appearance of the child, the history in respect of loss of appetite, night sweats, persistent cough, loss of energy and listlessness. In examining the chest, great weight is attached to such signs as are confined to one lung, e.g., deficient expansion, feeble respiratory murmur or any adventitious sounds which are confined to one side and are persistent. It is very common to hear fine crepitations at the root or base of one lung; only when these persist are they regarded as a positive indication. A factor to which great importance is attached is loss of, or failure to gain weight at the periodical re-weighing of the children. Examination of the sputum has not been of much assistance, owing to the difficulty of obtaining satisfactory specimens. In only two cases

were tubercile bacilli found in the sputum, and in the both the diagnosis had been made independently. On the whole, the position taken up with regard to the diagnosis of this condition has been very conservative, and a positive diagnosis has only occasionally been made at the first examination.

At the routine examinations 41 cases were found to have some evidence indicative of pulmonary tuberculosis. Of these, 17 were later definitely diagnosed as cases of phthisis, 17 are still regarded as doubtful, whilst it was finally decided that 7 were free from active disease.

At the special examinations 50 children were kept under observation; 26 of these were definite cases of phthisis. This is 4% of the total number examined, and is a high figure: it is chiefly accounted for by the fact that an endeavour has been made to examine carefully all weakly children and all children who have been absent from school either frequently or for a long period on health grounds. Eleven other cases are still regarded as doubtful. In 13 it was eventually decided that they were free from active disease. In these special cases, the parents are mostly aware of the children's delicacy, and are very anxious to bring them for re-examination; thus a continuous record can be kept of the condition of the patients.

Taking the 43 definite cases of phthisis, a family history of tuberculosis in the parents or near relations was present in ten. There were also the cases of two brothers, and a brother and sister, all children, one of whom may in each case have infected the other. An endeavour was made to examine all school children living in a house from which a case of phthisis had been notified. No definite case of tuberculosis occurred among these contacts, but two are suspected to be tuberculous. On dividing the 71 definite or suspected cases into the groups suggested by the Board of Education, it was found that:—

28 (17 routine and 11 special) cases were suffering from incipient tuberculosis, (Group A),

33 (14 routine and 19 special) were more chronic in character, the changes in the lungs being probably of a fibrotic nature (Group B), and,

10 (3 routine and 7 special) were advanced infectious cases (Group C): one had a high temperature at the time of examination, another had pleurisy and a third had copious expectoration.

All children in Group C were excluded from school. The majority in the other groups were excluded for longer or shorter periods. In this connection the aid of the teachers is of great value, as they observe the condition of the children in school with regard to lassitude and inability to do their work, and inform the School Medical Officer. If these symptoms are noted, the child is excluded. Broadly, it may be stated that where the home conditions of the child are such that they receive the necessary attention with regard to food, clothing and general care, tuberculous and pre-tuberculous children are excluded for their own sakes. In a few cases, where the home conditions are not so satisfactory, and the children are not infectious, they are encouraged to attend, so that they may obtain the benefit of the meals at school, if necessary, and the general supervision which the schools nowadays afford.

Cases of definite pulmonary tuberculosis number ·35% and of "pre-tuberculosis" ·23% of the children on the school roll.

B. Osseous. At the routine inspections, 8 children were found to be suffering from tuberculous disease of the bones, or the after-effects of such disease; 3 of these are quiescent, and are, for convenience of classification, included in the cases decided after observation to be non-tuberculous. Two of the patients were deformed. The 5 active cases are :— 2 children suffering from hip disease, 1 from tuberculous knee, 1 from spinal caries and 1 from metacarpal disease.

The special cases included 1 case of spinal caries, and 2 of hip disease. One case of quiescent hip disease was also seen.

C. Glandular. Only 1 case of tuberculosis of the glands was found at the routine inspections : 5 cases were seen at the special examinations. In all these the glands of the neck were involved. It must be noted that dental caries, adenoids, etc., predispose to this condition. Three suspected cases of tuberculosis of the mesenteric glands were seen at special examinations, and are now under observation.

D. Other Forms. The four routine cases noted are of tuberculosis of the skin (lupus).

During the year the deaths of 7 children of school age were certified to be due to tuberculosis: these include 4 from phthisis. They were all under the care of private practitioners: none had been presented for special or routine examination.

RICKETS AND DEFORMITIES.

At the routine inspections, 37 children or ·93% were found to be suffering from the results of rickets. In 20 of these, marked curvature of the limbs was found. There were 27 children suffering from deformities, 2 of these were congenital in origin, 2 tuberculous (quiescent), 10 the result of infantile paralysis, and 2 cases of scoliosis.

REVIEW OF ACTION TAKEN TO PREVENT THE SPREAD OF INFECTIOUS DISEASES,

The methods detailed in last year's report are still in use.

Scarlet Fever. The number of cases notified amongst school children was 92. The greatest number of notifications was received concerning the scholars of Linacre Council School, viz., 14 or 1·46% of the scholars on the roll. This, however, is a great improvement on the 42 cases (4·37%) reported during 1911. The next schools were Gray Street, 14 cases (1·4%) and Bedford Road, 15 cases (1·1%). The smallest numbers were received from St. Winefride's, 2 cases (·22%) and St. James' 1 case (·06%).

Diphtheria. During the year, 23 cases of diphtheria occurred amongst the scholars of the public elementary schools. Eight cases were notified from Christ Church Schools, the attack rate being 1% of the number on the roll. At Bedford Road Council School, 9 cases occurred, the attack rate being ·67%. One case occurred in each of six other schools.

Measles. During the first six months of the year, practically no cases of measles were brought to the notice of the School Medical Officer. In the autumn an epidemic commenced, which soon assumed serious

proportions. Before the end of the year, 62 deaths had occurred, 33 were of infants under the age of two years, 24 were between two and five years, 4 were aged five and 1 was aged six years. 293 cases in school children were notified by the head teachers, or the school attendance department. Each case was visited, and all children who lived in the same house and attended an infants' department, whether they had previously suffered from measles or not were excluded from school. Contacts of any age who had *not* had measles were also excluded, but children over the age of seven who had had the disease were in most cases allowed to attend. This course was adopted, because it is believed that the virus of measles though very infectious from person to person is very short-lived when outside the human body.

The report of the Medical Officer of the Local Government Board of 1910-11 contains the following statement:—

"Older children are usually permitted to attend the boys' or girls' departments of schools from families in which there is at the time a case of measles. There is no evidence that this practice leads to spread of infection: whether this result be due to the fact that the infective material is seldom carried in clothes, or to the fact that most of the children in these departments of schools are already protected is not known."

A comprehensive enquiry into the question of the exclusion of cases of measles was undertaken by the Local Education Authority of Walsall. 145 Local Authorities answered the questions asked. Of these 85 (58%) carry out the procedure now in vogue in Bootle. Thirty-five (24%) admit all contacts, infants included, who have had the disease; that is, 82·7% of the Authorities require contacts of cases who have had measles to attend school, 21 Local Authorities (14%) admit no contacts to school until the case has recovered.

In support of the practice adopted in Bootle, it may be stated that only 17 cases of measles occurred in the Senior Departments of the schools.

Attempts were made to stay the progress of the epidemic by careful exclusion of all children, who presented the symptoms which usually mark the onset of measles. A leaflet containing information relating to the disease was freely distributed. The school distribution of the disease was very noticeable, and it was remarkable that in certain schools, e.g., Hawthorne Road and Orrell, there were practically no cases, even though neighbouring schools had had to be closed. In three schools, it was evident that the disease was being spread in the Infants' Departments, and it became necessary for the Local Sanitary Authority to require their closure.

On October 25th, 48 scholars of St. James' Infants' Department were suffering from measles, and 24 others were absent, because there was measles in the house: these 72 absentees formed 17% of the children on the roll and the department was closed from that date until November 4th; the Infants' Department of Salisbury Road School was closed from November 22nd until December 9th; in this case 18% were absent because of measles; and at Christ Church Infants' Department which was closed from November 19th until December 9th, 22% were absent because of the disease. During the closure, the Departments were disinfected and cleansed. At the re-opening the Medical Inspector and a Lady Inspector examined all the children on their admission. The result of the closure was satisfactory in every case. The infants' classes of Sunday Schools in the neighbourhood were closed during these periods at the request of the Sanitary Authority.

Class closure was necessary in one Department, the babies' class at St. John's School being closed from December 16th until the 20th.

During December a few cases occurred at Linacre and Gray Street Schools which up to then had been practically free. When the schools re-opened in 1913 after the Christmas Holidays it was found that no less than 42 infants from Linacre and 15 from Gray Street had suffered from measles during the holidays. Very few further cases have been notified from these schools, and it has not been necessary to close them.

OTHER INFECTIOUS DISEASES.

Seventy cases of whooping cough, 81 of chickenpox, and 24 of mumps were reported during the year and visited at their homes.

The following table gives the schools from which cases and contacts of cases of measles and other infectious diseases were notified.

SCHOOL.	Measles			Chicken Pox			Whooping Cough.			Mumps.
	Cases.	Contacts.	Total.	Cases.	Contacts.	Total.	Cases.	Contacts.	Total.	
Salisbury Road ...	51	11	62	29	5	34	20	9	29	1
Hawthorne Road ...	—	—	—	—	1	1	2	—	2	—
Linacre Lane	10	—	10	5	—	5	6	3	9	14
Bedford Road	14	2	16	9	2	11	2	—	2	4
Gray Street	27	9	36	13	3	16	3	—	3	1
St. James'	59	16	75	3	2	5	1	—	1	—
St. Mary's	11	2	13	8	3	11	9	1	10	—
Christ Church... ...	40	6	46	2	1	3	9	2	11	—
St. John's	35	14	49	11	2	13	5	—	5	—
St. Alexander's ...	9	2	11	—	—	—	5	5	10	3
St. Winefride's ..	25	5	30	—	—	—	5	1	6	1
St. James' Select ...	7	—	7	1	—	1	3	1	4	—
Orrell	5	—	5	—	—	—	—	—	—	—
Totals	293	67	360	81	19	100	70	22	92	24
No. of visits & revisits	740			243			310			89

OTHER DEFECTS OR DISEASES.

133 cases of children suffering from other defects were reported at routine examinations. Under this heading are included cases of hernia, synovitis, naevi, tumours, abscesses, etc.

EXCLUSION OF SICK CHILDREN.

1,143 children were excluded by the School Medical Officer during the year in accordance with the provisions of Article 53 (b) of the Code.

The following table gives particulars of the 1,111 children who had returned before the end of the year.

Disease.		No excluded.	Total No of days excluded.	Average No. of days excluded in each case.
Scarlet Fever	Patients	91	5,533	60
Do.	Contacts	142	2,488	17
Diphtheria	Patients	21	936	44
Do.	Contacts	29	1,205	41
Enteric Fever	Contacts	9	255	28
Measles	Patients	284	5,990	21
Do.	Contacts	35	561	16
Whooping Cough	Patients	70	2,122	30
Do.	Contacts	13	314	24
Chickenpox	Patients	75	951	12
Do.	Contacts	21	287	13
Mumps		24	614	25
Ringworm	(Head)	45	4,970	110
,,	(Body)	29	780	26
Phthisis		6	255	42
Anæmia		2	55	27
General debility (including cases of suspected Tuberculosis)		56	1,622	28
Conjunctivitis		43	515	12
Ophthalmia		12	91	7
Corneal Disease		2	30	15
Iritis		2	23	11
Otorrhœa		3	32	10
Bronchitis		18	318	17
Scabies		9	159	16
Eczema		15	185	12
Impetigo		42	429	10
Rheumatism		5	100	20
Chorea		8	165	20
Totals		1,111	30,985	27

In many cases the children have been absent for some time before they are brought to the notice of the School Medical Officer and formally excluded. In addition to the above, 7 children were permanently excluded. The days excluded, include Saturdays and Sundays and some of the shorter holidays, but not the school vacations. The figures relating to ringworm of the head show an average period of absence of 110 days, and would be even greater if some of the chronic cases who have been out of school for months and are still absent were included. The Chronic Sickness Register contains the names of 5 children who have been absent for more than six months because of ringworm. The loss of attendance grant due to ringworm is a large sum.

All the children who are excluded from school, are kept under supervision, and an endeavour is made to secure appropriate treatment, so that the child may return to school at the earliest possible date.

It is felt by local authorities to be a hardship that since the epidemic grant has been discontinued, no grant is made for children excluded under the authority of the School Medical Officer; for example, if a class is closed for a few days because one or two cases of measles have occurred, no grant is paid, but if the whole Department is closed, grant is paid on nine-tenths of the attendances lost.

II. "Following-up" and Medical Treatment.

Medical "Inspection" is not of great value, unless the defects which are discovered are remedied. The cases of children whose defects had not been remedied before the re-inspections held at the schools, i.e., six weeks after the routine examinations, were referred to the Voluntary Helpers, who investigated the home circumstances of the cases, and endeavoured to persuade the parents to secure adequate treatment. This work, in the future, will be performed by the School Nurse.

The Head Teachers are furnished with a list of all the children in their departments who require domestic or medical attention. In most of the schools, they render very valuable aid, by using their influence with the children and parents to secure that which is required. The

effect of this influence, and of the visits of the School Nurse is to awaken parental responsibility, and the parents take steps to have their children treated either by private practitioners or at hospitals. An annual donation of 15 guineas is given by the Local Education Authority to the National Society for the Prevention of Cruelty to Children. In return for this, the Society renders valuable aid by bringing pressure to bear upon recalcitrant parents, and treatment has been obtained in some cases as the result of the intervention of the Society after all other means had failed.

Statistics relating to "following-up" are given in the table:—

Defect.	No. of Defects for which treatment is required	Treated.			Left School.		No Report.	No. Treatment.	Percentage.		
		Cured or Remedied.	Improved.	Unchanged and under Observation.	Under Treatment.	Without Treatment.			Treated.	Untreated.	No Report.
Dirty Conditions ...	655	217	209	76	110	16	18	9	93·5	3·8	2·7
Ringworm	102	40	3	59	—	—	—	—	100·	—	—
Impetigo	32	19	7	2	2	—	2	—	93·8	—	6·2
Scabies	4	—	4	—	—	—	—	—	100·	—	—
External Eye Disease	187	132	36	—	6	2	1	10	93·	6·4	0·6
Spectacles Required—											
(*a*) Strabismus ...	161	56	†18	—	6	22	20	39	49·7	37·9	12·4
(*b*) Failure to read test types ...	419	140	†59	‡9	15	69	35	92	53·3	38·4	8·3
Teeth very urgent ...	10	3	3	2	1	1	—	—	90·	10·	—
Tonsils and Adenoids	277	58	29	125	24	19	18	4	85·2	8·3	6·4
Mouth Breathers ...	518	147	157	99	63	13	27	12	90·	4·8	5·2
Ear	136	29	31	41	9	6	5	15	80·9	15·5	3·6
Nervous System ...	34	6	7	3	5	3	10	—	61·7	8·8	29·4
General Debility & Suspected Tuberculosis	384	41	163	86	46	11	9	28	87·2	10·4	2·4
Tuberculosis	61	—	16	*34	11	—	—	—	100·	—	—
Various	274	80	95	54	33	6	6	—	95·6	2·2	2·2
Totals	3254	968	837	590	331	168	151	209	—	—	—
Percentages... ...	—	29·8	25·7	18·1	10·1	5·2	4·6	6·5	83·7	11·7	4·6

† Children are attending hospital.

‡ On attending hospital were informed that spectacles would not improve their vision.

* Including 7 who are worse.

The 3,254 cases on the " following-up " registers relate not only to the defects found in 1,772 children at the routine examinations and in 648 at special examinations, but also those in over 1,700 children whose names were handed over from 1911.

Of the 3,254 cases, in 968, or 29·8% the defects were remedied; in 499, or 15·3%, the children had left school before the close of the year. 1,787 defects, or 54·9%, are not yet cured and particulars are to be placed upon the following-up registers for 1913: these include 1,427 (43·8%) which are now under treatment. The total results show an improvement upon those of last year, for 83·7 were treated, compared with 70·3% in 1911, and there were only 11·7 untreated this year, compared with 21·3%. Those under the heading "No report" occurred in children who were absent at the time of re-examination, and the voluntary helpers could not get into touch with them. They numbered only 4·6% this year, compared with 8·4% last year. Taking the individual defects, the largest number untreated, as was the case last year, is of children with defective vision, 38·2% of whom still remain untreated.

During the year special attention was paid to cases of Ringworm and Tuberculosis, with the result that every child was receiving some treatment at the end of the year.

DIRTY CONDITIONS.

Instructions for cleansing heads are given to all children who are in any way dirty. In only nine cases of the 655 on the list had no treatment been attempted. These cases are being dealt with.

RINGWORM.

All the cases of ringworm were receiving more, or generally less, satisfactory treatment.

Two children obtained X-ray treatment at a Liverpool Hospital and were cured. A few regularly attended a private practitioner. Several others spasmodically attended the out-patient department of a hospital. Others purchased more or less efficacious ointments from chemists. Those who were not receiving suitable treatment were regularly visited and if

necessary, referred for examination by the Medical Inspector. In several towns, an X-ray installation has been fitted up in order to deal with these cases of ringworm of the head. In Bradford, it is found that the average number of days' absence from school of children treated by means of the X-rays is 35, compared with 287 days' absence of scholars treated by drugs. With an average attendance of some 35,000 children, the number of attendances saved last year in Bradford, compared with the absences which would have occurred had they been treated by the ointment method was 70,000.

VISION AND EYE DISEASES.

580 cases of defective vision were recommended to consult a medical man with a view to obtaining a prescription for spectacles. Of these, 196 obtained spectacles, 77 were attending the ophthalmic department of a hospital at the end of the year, and 9 had been examined and informed that glasses would not improve their sight. 21 others were receiving treatment when they left school. These make a total of 303, or 52·3 per cent. treated: 131 who remain at school received no treatment, and their condition was unchanged ; these are 22·7 per cent. of the total. In certain of these cases it will probably be necessary to bring greater pressure to bear on the parents, in order that appropriate treatment may be secured and further deterioration of eyesight prevented. 91 cases, or 15·6 per cent. left school untreated, thus making a total of 38·3 per cent. untreated. This percentage is the same as that reported last year. 55, or 9·4 per cent. of the children could not be traced.

The above cases include 161 cases of squint who were advised to obtain spectacles. The vision of 44 of these had been tested ; in 117 owing to the inability of the scholars to read letters the vision could not be tested by Snellen's Type. Of the 161 cases, 56 have obtained spectacles, and 18 are attending hospital; 6 others were attending hospital when they left school. These make a total of 49 per cent.treated. Twenty left the district or could not be traced, and the others—39 still at school and 22 who have left—are still untreated. The figures are an improvement upon those of last year, but are still unsatisfactory.

A squint in children in the great majority of cases is associated with an eyeball which is either shorter, or, more rarely, longer than

normal. This is accompanied by defective sight, and if suitable spectacles are worn when the defect is first noted, the squint does not become worse, and the child's vision, when wearing the glasses, may be almost normal. If glasses are not worn, the squint becomes more marked, and the squinting eye may entirely lose its vision.

It is found that there is considerable difference in the percentage number of children in each school who obtained glasses; for example, in Gray Street, Hawthorne Road, Linacre, St. Winefride's, and Salisbury Road Schools, practically every child who required spectacles obtained them, but in other schools, only a small percentage did so. It is hoped that with the advent of the School Nurse there will be considerable improvement in the latter schools next year. The great majority of the children with defective sight attended the ophthalmic department of the Bootle Borough Hospital.

With the sanction of the Board of Education, £20 was allocated for the purpose of supplying spectacles to children whose parents are unable to pay for them. This amount was for the twelve months ending July 31st, 1912; a similar sum has been sanctioned for the succeeding twelve months.

During 1912, 145 pairs of glasses were provided:—135 pairs at 2s. each, one pair at 4s. 6d., and nine pairs at 5s. 6d. each. Five pairs were repaired at a total cost of 6s.: the total sum expended on spectacles during the calendar year was £16 10s., of which 16s. was recovered from the parents.

The names of 155 children who suffer from minor errors of refraction, or whose vision requires to be re-tested after spectacles have been obtained, are retained on the following-up register in order that their vision may be periodically tested, but are not included in the 580 cases of defective vision dealt with in the table on page 42.

187 cases of external eye disease were recommended for treatment, and 93% were treated. Cases of purulent conjunctivitis are excluded, and are required to attend at the Town Hall, before being allowed to return to school. The practice of the teachers in notifying these cases is not uniform.

TEETH.

It is seldom that any evidence of conservative dentistry is found, by reason of the fact that it is extremely difficult to secure appropriate treatment for those who cannot afford to pay a private dental practitioner. Extraction is performed free at the Hospital, but otherwise no free dental treatment is available. For this reason it is useless to place upon the following-up register the names of *all* children whose teeth require attention. The names of only 10 children who were in urgent need of treatment were placed thereon. In all of these, except one for whom no treatment was obtained, the carious teeth were extracted. It is very difficult to hope that any improvement in the teeth of the children will be effected until a dental clinic is established. In July, 1912, 29 Local Education Authorities employed a school dentist or arranged for dental treatment. It costs some £40 to £50 to fit up a dental clinic: part-time dentists are usually paid £1 for each half-day's attendance. A whole-time dentist, or part-time dentists working 10 half-days each week can inspect and treat 3,000 to 4,000 children each year. The parents of the children treated at dental clinics are required to pay for the treatment if they can afford to do so.

TONSILS, ADENOIDS AND MOUTH BREATHING.

Operative treatment for the removal of enlarged tonsils and adenoids was advised in 277 cases: 58 or 20·9% were operated upon. 154 or 555% received palliative treatment. Of these 29 were improved, and in 125 the condition was unchanged. 43 left school during the year, 24 of whom were under treatment. Concerning 18 there was no report. 518 mouth-breathers in addition to those who required operative treatment for adenoids, were kept under observation during the year. All children with this habit are given printed instructions on breathing exercises, and teachers are asked to pay special attention to such members of their classes, and to insist upon proper use of the handkerchief. These cases are kept on the list until there is a decided improvement, and the child understands the purport of the exercise. There was evidence that in 466, or 90%, an endeavour was being made to remedy the defect. In 147 of these, or 28·4% of the total, the mouth-breathing was cured. In 157 or 30.3%, the condition was improved, in 99 there was no improvement, and operative interference may become necessary. 76 cases left school before the end of the

year. In only 25 cases, 13 of whom had left school, had no attempt been made to act upon the school doctor's advice. The comparatively small number of children operated upon for the removal of enlarged tonsils or adenoids is partly due to ignorance of the parents and also to difficulty in securing this treatment by reason of the large number of patients who now attend the Throat Departments of the Hospitals. When the remote effects of these conditions such as deafness, discharging ears, mental dulness, deformed face and chest are pointed out, parents, as a rule, make some endeavour to secure treatment. All cases, whether they have been operated upon or not, are encouraged to perform breathing exercises.

EAR DISEASES.

136 cases were recommended to obtain treatment in addition to those who are included in the children who suffer from adenoids. Of these only 29, or 21%, are cured. An additional 31, or 22·7% were improved. The treatment of cases of discharging ears is in a very unsatisfactory condition. It is impracticable for the children to attend private practitioners or the hospital for the careful syringing which is necessary, and which cannot be efficiently done by the parents. It would be very difficult to arrange for the school nurse to attend to all these cases. If no improvement occurs, as the result of careful and prolonged syringing, operative treatment is necessary, but it is only in very rare cases that this can be obtained.

NERVOUS SYSTEM.

Of the 34 cases, chiefly St. Vitus' Dance and habit spasm, 62% received treatment.

GENERAL DEBILITY.

The names of 384 children appeared under this heading on the following-up registers. 204, or 53%, were cured or improved at the close of the year. The 384 include some 55 cases of suspected tuberculosis, who are being kept under observation. Twenty-four were found after many months to present no definite signs of the disease, and they may provisionally be regarded as non-tuberculous. Debilitated children who attend the Day Industrial School are treated by the Medical Inspector, who prescribes cod liver oil, other nutritives, Parrish's food, etc., when these are required. He visits the school each week, and keeps a record of the progress of the children who receive treatment.

TUBERCULOSIS.

The treatment of tuberculosis in children affords the most promising field for the cure of this disease. The names of 61 active cases of tuberculosis appear upon the following-up registers. Of the 50 whose names were still on the school rolls at the end of the year, there was improvement in 16 only: in 7 others the disease is advancing. All the children were kept under the observation of either a private practitioner or the medical inspector, who keeps records of their weight and progress. The establishment of an anti-tuberculosis dispensary is contemplated. Last year the combined efforts of the Education and Health departments were directed to encourage and aid parents to gain the help of such institutions as exist, and to instruct both parents and children in the methods of prevention and cure of the disease, by visits at their homes and by the distribution of popular literature. An illustrated placard on this subject has been placed in each Senior Department of the schools, and teachers have been asked to refer to these during the hygiene lessions. They have attracted the interest of the scholars, and the pictorial representations of the ravages of the disease, and the means of combating and preventing the same, are likely to make a permanent impression on their memories. It is only rarely that the parents of tuberculous children can afford to obtain treatment for them from private practitioners. The great majority content themselves with an occasional visit to the out-patient department of a hospital, or to the poor-law dispensary. For advanced cases, institutional treatment is necessary. The Deysbrook Home of the West Derby Board of Guardians is available for non-infectious cases. The Invalid Children's Association sometimes provides for the treatment of Bootle children at the West Kirby Convalescent Home. They also supply splints for surgical cases of tuberculosis when the parents are unable to do so. The Royal Liverpool Country Hospital for Children at Heswall, the Liverpool Children's Infirmary, the Royal Southern Hospital, the Bootle Borough Hospital, and the Mill Road and Walton Hospitals of the West Derby Union, have been of great service in individual cases. The preventive treatment of tuberculosis in the form of open-air schools or classes might well be undertaken. Playground classes are now held at most of the schools during the summer months.

VARIOUS.

Of the 274 children suffering from various ailments and placed upon the following-up register, 95·6% obtained treatment. The most important ailments included under this heading are rheumatism and organic heart disease, of which there were 37 cases. These cases are carefully followed-up and re-examined; medical supervision rather than treatment is generally required. The supervision should be directed to the prevention of a recurrence of active rheumatism, and when the heart is already involved, to the avoidance of over-exertion which might increase the mischief. In these cases, frequent examination of the heart is necessary, and where the heart has recently been damaged, a prolonged rest is necessary. The teachers' attention is directed to all "heart" or rheumatic cases, and care should be taken that they do not remain in wet clothing or footwear. Careful "mothering" is essential for these cases.

GENERAL OBSERVATIONS ON TREATMENT.

In considering the question of the treatment of ailing school children, the available means for its provision must be mentioned. *Firstly*. There is Domestic Treatment, which is all that is required in certain cases, e.g., dirty conditions. The interest and intelligent co-operation of the parents are essential in all cases in which the child is not admitted to an institution. One of the principal reasons for appointing a school nurse was that mothers might be rightly directed as to the best method of carrying out any treatment which might be required. *Secondly*. Many parents believe that chemists are qualified to advise them as to the treatment of their children. An effort is being made to discourage this belief. *Thirdly*. The great majority of children who suffer from serious ailments are taken to the out-patient department of the Bootle Borough, or a Liverpool, Hospital. There is considerable congestion in the special departments of these institutions, and parents complain of the long delays, e.g., before spectacles are ordered, or enlarged tonsils and adenoids removed. A fee of 6d. is required for a fortnight's attendance at the local hospital, and many of the parents are unable or unwilling to pay this if their children require prolonged treatment; but, arrangements have been

made by which the vision is tested free of charge if the Secretary for Education certifies that the parents cannot afford the usual fee.* *Fourthly.* Certain children of the poorest class are treated by the Parish Medical Officers. *Fifthly.* A few better class children are taken by their parents to private practitioners. *Sixthly.* The Local Education Authority provide spectacles for necessitous cases. Also, for the twelve months ending July 31st, 1913, the Board of Education have sanctioned an expenditure of £20 on the provision of surgical and other appliances for the use of children in the Public Elementary schools.

Regulations have been issued by the Board of Education stating the conditions upon which grants will be paid in respect of medical treatment and care of children attending public elementary schools and certain special schools during the year ending March 31st, 1913. By the Regulations no grant can be made to a Local Education Authority unless the Board are satisfied that the Authority's provision for medical inspection is suitable and efficient. For the purpose of assessing grants the Board state that they will be prepared to take into account ameliorative undertakings falling under any of the following heads:—

"(*a*) Re-examination of children found to be defective at the routine inspections.

(*b*) The further examination (including the examination of defective eyesight for errors of refraction) at Inspection Clinics of children found defective at routine examinations.

(*c*) The examination at Inspection Clinics or elsewhere of special cases.

(*d*) The following-up of cases of defect by school nurses.

(*e*) The following-up and after-care of children with defects by Children's Care Committees."

Most of these undertakings are carried out in Bootle, but no arrangements have yet been made for the examination of errors of refraction at the Inspection Clinic, or for a Children's Care Committee. In respect of

* The Committee of the Bootle Borough Hospital in March, 1913, informed the Local Education Authority that they could no longer undertake the voluntary treatment of school children requiring spectacles.

medical treatment proper, "the Board will take into account treatment falling under any of the following heads, if carried out by the School Medical Officer or his staff, or under his direction or supervision:—

(I.) the treatment of minor ailments by school nurses;

(II.) the provision of spectacles, surgical or other appliances;

(III.) arrangements for medical or surgical treatment at hospitals, infirmaries, dispensaries, etc., or by private practitioners;

(IV.) treatment at School Clinics whether at general clinics for the treatment of various kinds of defects, or at special clinics providing for one type of ailment only, e.g., dental caries."

The Board further state that the disorders and maladies most suitable for treatment directly provided by Local Education Authorities are limited in practice to minor ailments, uncleanliness, ringworm, and other common skin diseases of children, defective eyesight or hearing, some external affections of the eyes and ears, and various temporary conditions of the mouth (including teeth), nose and throat.

Additional grant may be made by the Board in aid of treatment provided in open-air schools, day or residential, and other special schools. An account has been sent to the Board of the work which is done in Bootle, and a detailed account of the expenditure incurred during the twelve months ending July 31st, 1912.*

"First-Aid" Appliances. A supply of the articles which are required for the purpose of rendering first-aid is kept in each school.

III. General Review of the Hygienic Conditions prevalent in the Schools.

Surroundings. Most of the schools are, necessarily, placed in populous parts of the Borough, and it is for this reason that in a few, the play-ground accommodation is not sufficient.

Ventilation. Taking the schools as a whole, they are fairly well ventilated. In most of the rooms in which the ventilation was found to be inadequate, it was noted that the means provided were not fully used,

*See foot-note on page 5.

but in one of the older schools, it is almost impossible to secure an adequate flushing of the rooms with fresh air. In most of the schools, hopper windows are provided. It is the duty of the caretakers to see that all doors and windows are open for half-an-hour before morning school assembles. It would be advisable to appoint for each class, Health or Ventilation Monitors, whose duty it would be to see that all windows are widely open during the recess and dinner intervals.

Lighting. The lighting in the main rooms of many of the schools is unsuitable; in some because the windows are immediately facing the scholars and the glare from them is very trying to the eyes; in others, because the main rooms are divided by curtains, with the result that the middle compartments are not adequately lighted. The classrooms are, as a rule, suitably lighted. In five of the schools there is electric light, in the remaining seven, gas is used.

Heating. The majority of the schools are heated by hot water pipes and radiators. Two, however, are heated throughout by means of open fires and stoves. In most of the other schools there is an open fireplace in the babies' room. The correct temperature of a schoolroom should be from 56° to 60° F. In all the schools thermometers were used, but it was exceptional to find a record of the temperature kept by means of a chart.

Equipment. In the older schools there are many unsuitable long desks of plus design, which cause a mal-position during writing: some have not a back-rest. These old-fashioned desks are gradually being replaced by modern dual desks. It is undesirable to have foot-rests, for they interfere with the free movement of the limbs, and with the thorough cleansing of the floors.

Sanitary Conveniences. The number of sanitary conveniences is satisfactory except that in one school only one is provided for every 97 children, which is quite inadequate. Many defective gullies were found at one school: these are being replaced by new ones. The drains of each school are flushed once a year and examined by officers of the Public Health Department.

Lavatory Basins. The number provided varies from one to every 18 scholars in one department, to one for 175 in another. It must

be difficult to inculcate lessons of cleanliness where such meagre provision is made as in the latter case.

Water Supply. During the course of last year, the supply in one school, which had previously been through a cistern, was altered, and now, in every case, it is directly from the town's main.

Cloakrooms. It is very desirable that each child should have a numbered peg. The pegs are numbered in only a few departments: this is mostly done by means of chalk and not permanently. The pegs should be so arranged that the clothes of one child do not overlap those of another: in many departments this arrangement is not found. In at least sixteen departments the number of pegs is inadequate for the number of children for whom accommodation is provided.

Cleanliness of Rooms. This was found to be satisfactory in all cases.

IV. Provision and Management of Special Schools.

There is no "special school" in the Borough. The claims of a few physically defective children were carefully considered by the Committee during the year, but in no case was it deemed advisable to secure for them admission to a day or residential school for physically defective children. Nine blind children are being educated at the expense of the Local Education Authority. Eight of these are at the Liverpool School for the Blind and one at the Liverpool Catholic Blind Asylum.

Nine deaf and dumb children are in special schools, viz., eight at the Liverpool School for the Deaf and Dumb, and one at St. John's Institute for the Deaf, Boston Spa, Yorks.

V. Physical Training, etc.

Great interest is taken locally in the question of physical education. Four teachers attended the holiday course on this subject at Scarborough in the summer of 1912, the Committee defraying a portion of the cost. These teachers are now conducting classes which are attended by practically all the other teachers in the town.

The visits of representatives of the Board of Education, Mr. Grenfell and Mr. Veysey, the former of whom gave a demonstration to the teachers, were much appreciated. Throughout the greater portion of the year, the physical exercises are performed in the playground. There are swimming and games clubs attached to practically every school. Organised games are a part of the curriculum in every school.

Playground Classes. During the summer months, in most of the schools, classes, in rotation, are taken in the playground : this is the most common form of playground class, and may be alluded to as Type 1. It secures a certain amount of open-air education for the maximum number of scholars. Types of playground class found in other towns are the following :—

2. a class of delicate children of approximately the same educational attainments drafted from neighbouring schools, and conducted in the open-air throughout the day in the summer months.

3. a class of delicate chidren of varying educational standards selected from the same school, and conducted in the same way as No. 2.

On medical grounds, it is desirable that classes on models 2 or 3 should be established, and educationally 2 is to be preferred to 3. Adequate seating accommodation and an awning would be required for the classes.

The question of the provision of a permanent open-air school at which tuberculous, pre-tuberculous and debilitated children may be educated under the best conditions will shortly have to be considered.

TEACHING OF TEMPERANCE AND PERSONAL HYGIENE.

Lectures on Temperance are delivered to the upper standards every quarter by a Lecturer appointed for the purpose. Lessons on Infant Care and Management are given in the Senior Girls' Schools by the Teachers. The Lady Health Visitors are willing to attend occasionally when requested and give a practical demonstration on the subject. I am informed that on previous occasions, when a Lady Inspector has been present with an infant and its mother, the scholars were very interested in seeing the subject of their previous lessons put into practice.

VI. Juvenile Employment.

A Juvenile Employment Sub-Committee has recently been formed in accordance with the provision of the Education (Choice of Employment) Act, 1910. In addition to twelve members of the Education Committee, there are four representatives each of employers, head teachers, trade unions, and women actively concerned with the social welfare of girls. A Juvenile Employment Officer has been appointed, and commenced duty on January 1st, 1913.

It is obvious that if a scholar who is seeking to gain entrance to any particular trade has any physical defect which would prevent the efficient performance of the work which will be required of him, this fact should be reported to the Juvenile Employment Sub-Committee and its Officer, who will endeavour to place each applicant in a post for which he or she is physically, as well as mentally, fitted; e.g., a rheumatic child should not be placed in an occupation where the workers are exposed to inclement weather; nor a child with a "weak chest" in a dusty occupation. The teachers are informed by the Medical Inspector and also by means of the following-up registers, of all children who suffer from any serious disease, hence they can inform the Employment Officer if any child who seeks employment has been adversely reported upon. The Juvenile Employment Officer will be given access to all reports in the School Medical Officer's possession, and any child will be specially examined if this be required.

Dr. Hope reports that in Liverpool, 22 6% of leaving boys are employed out of school hours, and it is probable that there is a similar number in Bootle.

In order to determine the effect of the different varieties of this form of employment on the health of the children, a request is made that the Head Teachers shall present all children who are known to be employed out of school hours, for special examination.

Bye-Laws relating to Street-Trading by children under sixteen have already been made under the Employment of Children Act, 1903. The Act itself states that no child under the age of fourteen years shall be employed between the hours of 9 p.m. and 6 a.m.

VII. Feeding of School Children.

A report by the Secretaries of the School Canteen Committee on the work performed during the winter session 1911-12 has been sent to the Board of Education, and circulated amongst the Committee, hence it is unnecessary for me to make a long report on this subject.

I would repeat, however, that it is very desirable that power should be given to feed children during school holidays out of money supplied by the rates. At present the funds contributed by Voluntary subscribers provide these meals.

The meals are still served at the schools, and the teachers continue to supervise them. The dietary is the same as that reported last year, and the cooking and arrangements for distribution continue to be very satisfactory. The quality and quantity of the food leave nothing to be desired. The physical need of the children is, as before, the deciding factor as to whether or not the meals are provided. Pending the return of the inquiry form, all hungry children receive food. In no case has it been found that a child whose parents' income is above the limit has been sent hungry to school. There is no doubt that the meals are a very great boon to the children who receive them. Despite the fact that "trade" has been good during the past year, there are very many children whose parents cannot afford to provide adequately for them, e.g.—the wage-earner may be disabled or the surviving parent may be a widow. It is to such cases as these that the meals are given, and by their aid the capacity of the children for learning and their power to resist the diseases, e.g.—tuberculosis and anæmia which are all too prevalent in certain quarters of the town—are simultaneously increased.