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Publication/Creation

1910.

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COUNTY OF LANARK.

SECOND
ANNUAL REPORT
ON THE
MEDICAL INSPECTION
OF
SCHOOL CHILDREN.

1910-1911.



GLASGOW:
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TO THE SCOTCH EDUCATION DEPARTMENT, TO THE COMMITTEE
OF THE COUNTY OF LANARK ON SECONDARY EDUCATION,
AND TO THE SCHOOL BOARDS CONNECTED THEREWITH.

MY LORDS AND GENTLEMEN,

In accordance with the regulations contained in the Memorandum of the Scotch Education Department on the Medical Examination and Supervision of School Children, dated 31st March, 1909, the following Report for the year 1910-11 has been prepared by the two Senior Medical Inspectors. A supply of copies of the Report has been made available for distribution among the members of School Boards.

I am,

My LORDS and GENTLEMEN,

Your obedient Servant,

JOHN T. WILSON.

COUNTY OFFICES,
HAMILTON, 4th October, 1911.

SCHOOL MEDICAL STAFF.

SENIOR SCHOOL MEDICAL OFFICERS.

WM. JONES MACKINNON, M.D., D.P.H.

JOHN MACINTYRE, M.B., Ch.B., D.P.H.

JUNIOR SCHOOL MEDICAL OFFICERS.

CUNISON D. RANKIN, M.B., Ch.B., D.P.H.

DONALD CLARK, M.B., Ch.B.

NURSES.

KATHERINE BOYD.

MARY C. CRAM.

PART I.

SCHEME OF MEDICAL INSPECTION.

The Scheme of Medical Inspection and Supervision of School Children, as laid down in the Education (Scotland) Act, 1908, has now been in active operation in the County of Lanark since September, 1909. The scheme has been adopted, as was indicated in last year's report, by all the constituent School Boards, with the exception of Springburn, in the City of Glasgow, and Crawfordjohn, in the Upper Ward of Lanarkshire.

Maryhill School Board having this year amalgamated with that of Glasgow, the medical inspection of the pupils in the former board which, up till April, 1911, was undertaken by the County of Lanark, is now being done by Glasgow School Board. The results, however, of the medical inspection of the pupils in Maryhill are included in this year's report, as the medical inspection had been completed prior to the amalgamation of the two boards.

The area comprises 44 School Boards, having 242 schools, with 110,585 enrolled scholars. The schools are situated in 11 sanitary areas, and in the Maryhill portion of the City of Glasgow. Of these 11 areas 8 are Burghs and the remaining 3 are County Sanitary Districts.

For convenience of examination and supervision, the whole area was divided into two parts, one consisting of the Upper Ward and part of the Middle Ward of the County; the other of the Lower Ward and the remaining part of the Middle Ward. In consequence of the amalgamation of Maryhill School Board with that of Glasgow, and the addition of Lenzie Academy to the County of Lanark scheme, it was found necessary to rearrange the foregoing divisions. Below is given a table showing the area, number of schools, and number of enrolled pupils in each of the two divisions as rearranged. These might be classed as "Northern" and "Southern" divisions. The Northern Division is supervised by Dr. Macintyre, assisted by Dr. Clark and Nurse Cram; while the Southern is supervised by Dr. Mackinnon, assisted by Dr. Rankin and Nurse Boyd.

NORTHERN.			SOUTHERN.		
District.	No. of Schools.	No. of Pupils on Roll.	District.	No. of Schools.	No. of Pupils on Roll.
Airdrie, - - -	8	5,170	Upper Ward, - - -	56	10,044
Bothwell, - - -	22	11,947	Avondale, - - -	5	819
Cadder, - - -	9	2,213	Blantyre, - - -	5	3,277
Cambuslang, - - -	7	4,722	Calderhead, - - -	4	1,928
Carmunnock, - - -	1	125	Cambusnethan, - - -	11	6,050
Clarkston, - - -	8	2,104	Dalserf, - - -	4	1,104
New Monkland, - - -	9	1,699	Dalziel, - - -	11	10,638
Old Monkland, - - -	21	11,974	East Kilbride, - - -	3	512
Rutherglen, - - -	7	5,332	Glasford, - - -	2	243
Shettleston, - - -	8	5,592	Hamilton, - - -	15	8,988
Lenzie Academy, - - -	1	320	Larkhall, - - -	6	3,483
			Shotts, - - -	8	2,258
			Stonehouse, - - -	4	690
TOTAL, - - -	101	51,198		134	50,034

EQUIPMENT.

The equipment, as regards stationery, school boxes, uniform for nurses, &c., remains very much the same as last year. The difficulty which was experienced as regards the proper type of weighing machine to adopt has, to some extent, been overcome. The expense of placing a weighing and measuring apparatus in each school would have been very great (estimated to cost £500), so it was considered advisable to experiment with a light weighing machine, which could be easily carried from school to school. This has been done, and, so far, the method works very well. The type of machine in use is on the spring-balance principle, and weighs up to 150 lbs. by half pounds. The apparatus is easily affixed to a crossbeam or lintel of a doorway, and is provided with a seat, which can be raised or lowered to suit the infant or senior pupils. The machine has a dial on which the weight is recorded. The advantages of this type of machine are its portability, the ease with which it can be fixed in position, and the speed with which the weight of the pupils can be taken. On the other hand, one cannot say much as yet regarding durability, but, after being nearly a year in operation, the machines still work quite satisfactorily. Measuring rods have to some extent been discarded, and an ordinary measuring tape is now frequently used. This method of taking the height of the pupil is a simple and speedy one, and, if carefully done, gives accurate results. For ordinary school work, the simpler an apparatus is the better, and there is little need for the complicated and expensive weighing and measuring machines which are in vogue in some parts of the country.

Cards for vision testing, on the principle of Snellen's test types, are now supplied to each school, to be kept for the use of the School Medical Officers.

ADMINISTRATIVE PROCEDURE.

PUPILS EXAMINED—Two principal groups of pupils were again examined this year, viz., those pupils entering school for the first time, and those who were about to leave after having completed their prescribed term of schooling. These pupils are called respectively the Entrants and the Exeunts. The "entrants" are composed almost exclusively of pupils of 6 years of age and under, while the "exeunts" are principally those of 13 years and over. In order to obtain results comparable with other areas throughout the country, the classification of the pupils to be examined has been based upon age, irrespective of the class or standard in which the pupils may be in school. Accordingly, headmasters are asked to present, for examination, all pupils in their school who are six years of age or under (this embraces the entrants), and those who are thirteen years of age and over (this embraces the exeunts). The pupils in these two "age groups" are called Routine cases, and are inspected whether they stand in need of medical examination or not. In addition to these, certain other children, not included in these groups, are examined should

they be considered needful of examination. Such children are termed "Selected" or "Non-routine" cases. In dealing with this section, the following procedure is adopted:—Previous to the School Medical Officer's visit to the school to conduct the routine examination, blank forms are sent to the headmaster, on which he is asked to write the name and address of any child, not being a "Routine" case, who, in his opinion, should be examined at the forthcoming visit, and to state the reason why such a child is presented. The headmasters usually go round their various classes and enquire from the teacher if there are any cases of defective vision, deficient hearing, uncleanliness, neglect, skin disease, or any condition whatsoever which calls for remedy, and, if such cases exist in the class, these are presented to the School Doctor as "selected cases."

Thus, it will be seen that there are three groups examined each year in each school—the 6 years old group, the 13 years old group, and the "selected" group. In future, in addition to these groups, the examination of another age group will be undertaken, namely, the 11 years old group. This latter will embrace all children who are 11 years of age and not yet 12 years. It is hoped that, in addition to the foregoing groups, another age period will ultimately be added, namely, at 8 years, so that a child entering school, say at 5 years of age, will, during his school life, be examined on no fewer than four occasions, viz.—

1. On entering school ("6 years or under" group) ;
2. At 8 years of age ;
3. At 11 years of age ;
4. Previous to leaving school ("13 years or over" group).

In addition to these routine examinations, any child can be presented at any time as a "selected" case, should necessity arise.

The medical inspection and supervision applies, not only to the Elementary schools, but to *all* schools which are State-aided. Thus, Higher Grade Schools, Secondary Schools, and Voluntary Schools which receive Government Grants, all come within the scheme of Medical Inspection. In addition to these, students attending the various training centres are also subject to medical examination.

A few weeks previous to the proposed visit of inspection to a school a notice is sent to the head teacher stating what groups of children are to be examined, and asking for the probable number of children in each group, a specially-prepared postcard being sent for reply. From the information received the time necessary to spend on the examination of that school can be judged with a fair amount of accuracy, and also the number of "Health-history" and "Record" cards which will be needed. These cards are then duly despatched to the school, and the "Health-history" cards are distributed by the head teacher to those pupils who are to be examined. This is done with a view to ascertaining from the parents what serious illnesses, if any, the child has had. When these cards are brought back by the children the teacher is asked to transfer the information contained thereon to the front of the child's "Record"

card, and to see that each "Record" card bears the full name, address, and date of birth of the pupil. Pupils who are being examined as "Selected" cases do *not* require "Record" cards made up for them, only their names and addresses and the reason for being presented for examination being put on the form specially supplied for the purpose. (If all teachers would note this, both they and the School Medical Officers would be saved a good deal of unnecessary trouble). When the cards have been prepared the examination is now ready to take place. This usually occurs within the next ten days.

All the various processes in connection with the actual examination are now conducted by the School Medical Staff. The weighing and the measuring of the pupils, which formerly were undertaken by teachers in many of the schools, are now done at the time of the examination by one of the school nurses. The testing of vision or hearing of the pupils, which in some parts of the country is done by the teacher, has all along been done in this area by the School Doctor. On the completion of the examination of a school, a summary of the results is made up at the Medical Inspection Offices by the clerical staff, and submitted to the School Board, or to the managers of the school if the school is a voluntary one. The "Record" cards of the children are made up into their respective age groups and returned to the head teacher of the school, where they are kept in a special lockfast box for future reference.

On a revisit being made to a school, the School Medical Officer examines all children who, at the ordinary examination, were found to suffer from some condition which demanded immediate remedying, and whose parents were notified to this effect. Where no attention has been paid to the notice, and where the condition is still bad, a second notice is sent to the parents, and, if the condition is one that falls to be dealt with under Section 6 of the Education (Scotland) Act, 1908, a warning is given to the parents that it may be necessary to take action unless the condition is remedied. As a rule this second notice is effective, and, so far, no prosecutions have taken place in this area, but, in future, more stringent measures will be adopted, especially towards those parents who, through drunkenness and indifference, are neglecting their children.

All notices to parents are issued from the Medical Inspection Offices, and are sent by post in sealed envelopes. On no occasion has a notice been sent to any parent unless in a sealed envelope. When a child is found to be suffering from a condition which demands *immediate* exclusion from school, the examining doctor writes out a notice to the parent regarding the condition, encloses the notice in an envelope, seals it, and gives it to the child to take home at once. In all other cases the notices are issued from the offices.

For certain of the conditions, especially teeth and nits and lice, full instructions as to the best means of effecting a cure are printed on the back of each notice.

The extra work which falls upon teachers in connection with the medical examination of the children is reduced to a minimum, as all

that is asked of them is to see that the contents of the "Health-history" cards are properly transferred to the "Record" card previous to the doctor's visit. In the case of the seniors, this preparation of the "Record" card is usually undertaken by the pupils themselves, under the direction of the teacher.

CO-ORDINATION OF SCHOOL MEDICAL SERVICE AND PUBLIC HEALTH SERVICES.

The following are the public health authorities which have jurisdiction in the schools in the various areas embraced in the County of Lanark Scheme of School Medical Inspection :—

Burgh of Airdrie.	Burgh of Lanark.	Upper Ward of County.
„ Biggar.	„ Motherwell.	Middle „ „
„ Coatbridge.	„ Rutherglen.	Lower „ „
„ Hamilton.	„ Wishaw.	

In order to keep these various public health authorities in touch with the prevalence of infectious disease amongst school children, arrangements have been made whereby all cases of infectious disease, whether compulsorily notifiable or not, are notified to the health authority concerned. Such conditions include diphtheria, scarlet fever, measles, whooping-cough, chickenpox, mumps, scabies, ringworm, phthisis pulmonalis, and other forms of tubercular disease. In addition, all cases of children who are verminous, and whose homes are reported to be in a filthy condition, or whose appearance arouses a strong suspicion of filth and neglect at home, are notified to the local health authority. When notification of an infectious or contagious disease is made, such notification is sent to the Medical Officer of Health of the district, and to the headmaster of the school.

As regards the dealing with verminous homes, valuable assistance has been given by some of the public health authorities, who, in addition to cleansing the houses, have even given facilities for the disinfection of the wearing apparel, bed-clothing, &c.

The examination of specimens by the County Bacteriologist, Dr. J. Hume Patterson, has been of great service in assisting the School Medical Officers to come to a decision upon doubtful cases of ringworm, diphtheria, and phthisis. The following table shows the number of specimens examined and reported upon by Dr. Patterson :—

Sputum from suspected phthisis	...	...	...	14
Hairs from suspected ringworm of scalp,	...	...	...	42
Swabs from suspected diphtheria,	...	...	...	8

Several cases of ringworm of the scalp occurring in school children have been successfully treated by X-ray treatment at the Middle Ward Hospital by Dr. Stewart, the Physician-Superintendent of the Hospital.

PART II.

The following is a short summary of the work done for the year ending 31st July, 1911:—

EXAMINATION AND REVISITING OF SCHOOLS.

Total number of Schools Examined,	...	...	242
„ „ revisited once,	...	...	237
„ „ „ twice,	...	...	122
„ „ „ thrice,	...	...	7

EXAMINATION OF PUPILS.

A.—PUPILS EXAMINED AT ROUTINE INSPECTION—

				Number Examined.	
				Boys.	Girls.
Infant Pupils,	...	...	...	8,511	8,036
Senior „	...	...	...	3,790	3,760
Selected „	...	...	...	1,285	1,505
Total,				...	...
				<u>26,887</u>	

B.—PUPILS EXAMINED AT REVISITS—

Number examined at first revisit,	...	...	4,695
„ „ second „	...	...	3,032
„ „ third „	...	...	156
			<u>7,883</u>

C.—SPECIAL EXAMINATION OF PHYSICALLY AND MENTALLY DEFECTIVE CHILDREN—

Number examined,	394
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D.—EXAMINATION OF JUNIOR STUDENTS—

Number examined,	49
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ROUTINE EXAMINATION.

The total number of pupils examined for the first time during the year ending 31st July, 1911, was 26,887. This total does not include those pupils who were re-examined on one or more occasions when schools were revisited, nor does it embrace the junior students examined, or the physically and mentally defective children on whose behalf special examinations were made. All these will be dealt with in subsequent sections, under separate headings. Vidimus A and Vidimus B deal with the results of examination of 22,686 pupils; while Vidimus A (Supplementary) and B (Supplementary) give the results of the examination of 4,201 newly-enrolled infant children examined after April, 1911, but for whom no record of remedial measures could be obtained before the end of the school year.

Under Vidimus A and Vidimus A (Supplementary) will be found, in detail, the number of pupils examined in each School Board area, the number of scholars with conditions requiring immediate attention, the number of defects observed, and the total number of these defects which called for remedial measures.

Vidimus B and Vidimus B (Supplementary) give in detail the various conditions met with, the number of pupils who suffered from these conditions, and the number under each condition which demanded immediate attention.

THE FIRST PART OF THE HISTORY OF THE
LIFE OF THE LATE LORD OF THE
TREASURY OF THE KINGDOMS OF GREAT
BRITAIN AND IRELAND, JOHN
MANSFIELD, ESQ. VIZ. HIS
EDUCATION, HIS MARRIAGE, HIS
TRAVELS, HIS STUDIES, HIS
PUBLICATIONS, HIS DEATH, AND
THE BURIAL OF HIS BODY.

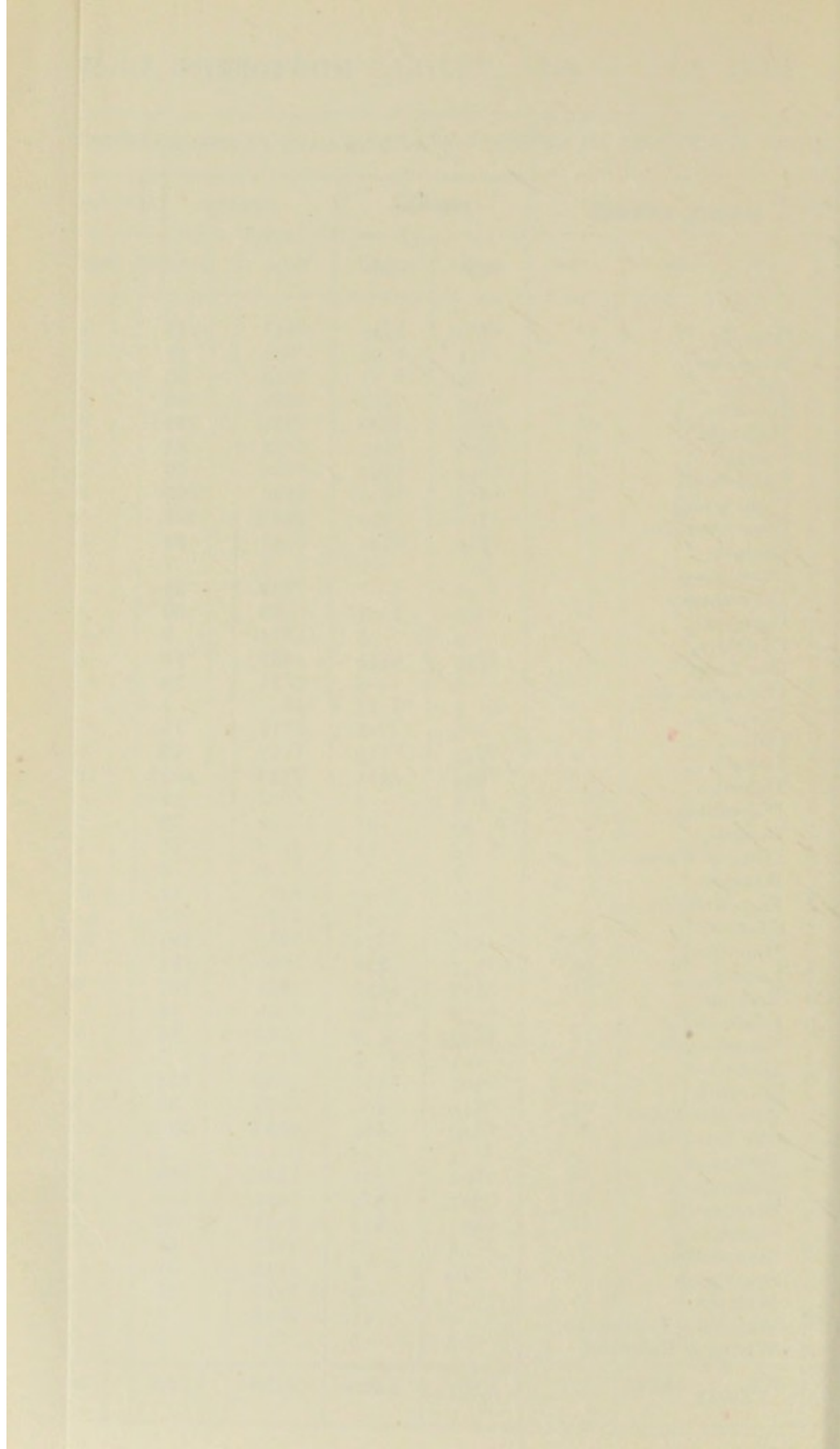
IN TWO VOLUMES.
THE FIRST VOLUME.
LONDON, PRINTED BY J. BARNES,
ST. MARTIN'S LANE, 1794.

THE SECOND VOLUME.
LONDON, PRINTED BY J. BARNES,
ST. MARTIN'S LANE, 1794.

VIDIMUS A.—WORK DONE FROM AUGUST, 1910, TO 31ST JULY, 1911.

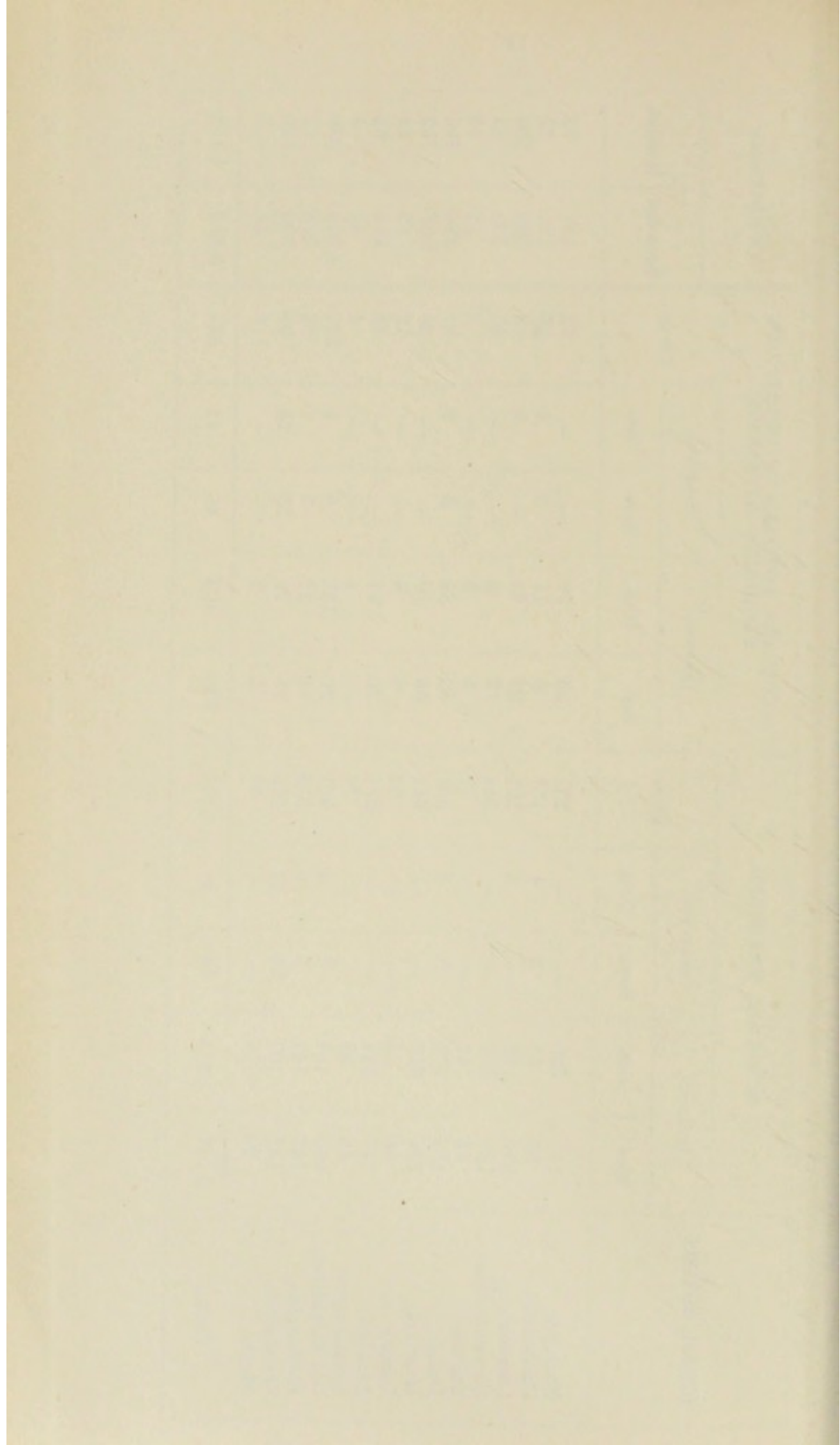
15

SCHOOL BOARDS.	SCHOLARS EXAMINED IN EACH GROUP.							SCHOLARS NOTIFIED OF CONDITIONS REQUIRING ATTENTION.								CONDITIONS.		SCHOLARS ON ROLL.
	INFANTS.		SENIORS.		SELECTED.		TOTAL.	INFANTS.		SENIORS.		SELECTED.		TOTAL.	Recorded.	Notified.		
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.					
Airdrie, ...	300	302	147	117	48	72	986	63	85	41	46	26	46	307	1,130	418	5,170	
Avondale, ...	44	35	20	18	5	3	125	8	11	5	6	2	3	35	117	46	819	
Biggar, ...	15	11	43	52	3	5	129	3	1	7	4	—	2	17	104	18	362	
Blyth, ...	163	165	108	106	26	28	596	21	28	25	26	22	26	148	521	180	3,277	
Bothwell, ...	628	600	271	223	98	134	1,954	138	150	93	89	56	95	621	2,361	772	11,947	
Cadder, ...	130	110	72	72	29	29	442	20	25	16	22	9	18	110	394	130	2,213	
Calderhead, ...	98	102	68	66	11	34	379	9	29	10	17	4	15	84	284	101	1,928	
Cambuslang, ...	222	214	110	103	75	98	822	37	48	31	38	40	59	253	885	332	4,722	
Cambusnethan, ...	352	292	243	274	57	81	1,299	56	71	39	60	26	51	303	1,040	357	6,050	
Carlisle, ...	115	121	67	84	12	11	410	10	20	15	27	3	9	84	321	94	1,990	
Carmichael, ...	—	1	6	1	—	—	8	—	—	2	—	—	—	2	7	3	43	
Carmunnock, ...	17	7	32	31	—	—	87	2	1	2	3	—	—	8	79	8	125	
Carnwath, ...	88	91	63	65	4	15	326	14	10	11	12	1	11	59	295	72	1,251	
Carstairs, ...	9	5	14	9	—	—	37	—	—	—	3	—	—	3	24	6	358	
Clarkston, ...	135	146	63	71	17	22	454	28	29	15	28	10	14	124	481	160	2,104	
Covington, &c., ...	5	3	14	10	—	—	32	—	—	—	—	—	—	—	20	—	40	
Crawford, ...	9	14	—	1	—	—	24	1	3	—	—	—	—	4	19	4	120	
Culter, ...	3	4	16	16	—	—	39	—	—	4	2	—	—	6	35	7	45	
Dalserf, ...	123	110	23	22	9	12	299	5	20	—	4	6	5	40	325	49	1,104	
Dalziel, ...	604	543	443	409	128	160	2,287	108	107	110	101	71	97	594	2,073	719	10,638	
Dolphinton, ...	8	6	22	27	—	—	63	—	—	1	5	—	—	6	49	6	92	
Douglas, ...	30	31	9	8	17	32	127	—	5	2	5	4	7	23	120	28	424	
Douglas Water, ...	18	21	8	7	1	7	62	1	9	3	2	—	6	21	64	23	318	
Dunsyre, ...	1	1	8	8	—	—	18	—	—	1	1	—	—	2	15	3	31	
East Kilbride, ...	41	30	11	11	—	—	93	4	5	3	4	—	—	16	65	19	512	
Glasford, ...	15	11	28	23	—	—	77	—	4	3	8	—	—	15	59	16	243	
Glasgow, ...	635	571	273	297	102	114	1,992	98	131	52	80	62	75	498	1,833	602	8,988	
Hamilton, ...	117	137	155	162	17	13	601	22	24	20	39	9	3	117	475	131	2,067	
Lanark, ...	182	193	145	122	20	20	682	25	32	18	29	14	11	129	492	156	3,483	
Larkhall, ...	22	25	59	34	—	—	140	5	4	8	7	—	—	24	162	29	153	
Leadhills, ...	166	149	79	87	28	31	540	17	23	11	11	15	14	91	420	104	2,438	
Lesmahagow, ...	4	4	4	7	—	—	19	1	—	3	2	—	—	6	23	6	42	
Liberton, ...	497	498	260	338	104	114	1,811	72	96	64	114	51	63	460	1,810	579	9,673	
Maryhill, ...	110	104	45	35	25	26	345	24	30	10	11	13	15	103	335	129	1,699	
New Monkland, ...	580	565	422	396	204	202	2,369	119	163	122	140	131	124	799	2,674	1,049	11,974	
Old Monkland, ...	1	3	1	5	—	—	10	—	1	—	4	—	—	5	13	11	31	
Pettinain, ...	304	297	161	156	99	96	1,113	70	61	39	61	48	64	343	1,185	426	5,332	
Rutherglen, ...	367	334	157	156	68	65	1,147	69	90	59	55	40	34	347	1,251	446	5,592	
Shettleston, ...	151	149	41	58	21	26	446	21	35	11	13	7	11	98	371	120	2,258	
Shotts, ...	56	33	18	16	1	5	129	5	8	5	6	—	2	26	105	34	690	
Stonehouse, ...	10	5	13	21	—	—	49	2	—	1	2	—	—	5	46	5	59	
Symington, ...	2	6	18	21	—	—	47	—	—	4	3	—	—	7	41	8	69	
Walston, ...	4	11	16	8	—	—	39	—	2	1	—	—	—	3	33	3	52	
Wandell & Lamington, ...	6	5	14	7	—	—	32	—	—	5	6	—	—	11	35	11	59	
Wiston & Robertson, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
TOTAL, ...	6,387	6,065	3,790	3,760	1,229	1,455	22,686	1,078	1,361	872	1,096	670	880	5,957	22,191	7,420	110,585	



SUPPLEMENTARY VIDUUS A.—INFANTS NEWLY ENROLLED, &c.

SCHOOL BOARDS.	SCHOLARS EXAMINED.					SCHOLARS NOTIFIED OF CONDITIONS REQUIRING ATTENTION.					CONDITIONS	
	INFANTS.		SELECTED.		TOTAL.	INFANTS.		SELECTED.		TOTAL.	Recorded.	Notified.
	Boys.	Girls.	Boys.	Girls.		Boys.	Girls.					
Blantyre, ...	111	120	—	—	231	23	29	—	—	52	191	73
Calderhead, ...	83	61	3	4	151	8	11	3	4	26	121	33
Cambuslang, ...	157	138	—	2	297	23	33	—	2	58	366	100
Cambusnethan, ...	136	108	—	—	244	13	8	—	—	21	130	23
Carlisle, ...	38	41	—	—	79	5	3	—	—	8	52	12
Dalziel, ...	288	272	5	3	568	35	38	5	3	81	386	106
Hamilton, ...	298	313	—	—	611	56	70	—	—	126	537	152
Lanark, ...	48	34	—	—	82	6	6	—	—	12	52	15
Larkhall, ...	147	124	—	—	271	22	21	—	—	43	182	52
Lesmahagow, ...	38	38	—	—	76	—	4	—	—	4	49	4
Old Monkland, ...	460	451	6	4	921	96	131	6	4	237	1,069	336
Rutherglen, ...	147	147	8	6	308	20	27	3	4	54	316	71
Shettleston, ...	153	107	34	31	325	29	22	23	24	98	390	129
Shotts, ...	20	17	—	—	37	2	2	—	—	4	32	6
TOTAL, ...	2,124	1,971	56	50	4,201	338	405	40	41	824	3,873	1,112



VIDIMUS B.—RESULTS OF EXAMINATION IN EACH OF THE THREE GROUPS OF SCHOLARS.

17

NUMBER OF SCHOLARS EXAMINED, AND THE NUMBER OF CONDITIONS RECORDED.

SCHOLARS PRESENTING CONDITIONS OF WHICH THE PARENTS WERE NOTIFIED—AND THE NATURE OF THE CONDITIONS REQUIRING ATTENTION.

	INFANTS.		SENIORS.		SELECTED.		THREE GROUPS.		TOTAL.	PER-CENTAGE.	INFANTS.		SENIORS.		SELECTED.		THREE GROUPS.		TOTAL.	PER-CENTAGE.
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.			Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		
Scholars Examined, ...	6,387	6,065	3,790	3,760	1,229	1,455	11,406	11,280	22,636	—	1,078	1,361	872	1,096	670	880	2,620	3,337	5,957	26.2
Clothing and Footgear, ...	297	123	139	36	99	49	535	208	743	3.3	93	46	46	10	61	32	200	88	288	1.3
Nutrition, ...	242	293	27	13	39	36	308	342	650	2.9	48	41	1	1	10	15	59	57	116	0.5
Head, (Nits, ...	99	1,115	19	463	30	173	148	1,751	1,899	8.4	60	542	10	208	24	133	94	883	977	4.3
Pediculous, (Lice, ...	259	319	70	72	138	127	467	518	985	4.3	259	319	70	72	138	127	467	518	985	4.3
Dirty Body, ...	32	18	22	2	17	12	71	32	103	0.4	32	18	22	2	17	12	71	32	103	0.4
Contagious (Impetigo, ...	82	73	17	10	28	25	127	108	235	1.03	56	60	8	3	21	16	85	79	164	0.7
Skin (Ringworm, ...	12	6	1	—	6	4	19	10	29	0.1	12	6	1	—	6	4	19	10	29	0.1
Diseases, (Scabies, ...	4	3	3	2	8	11	15	16	31	0.1	4	3	3	2	9	10	16	15	31	0.1
Teeth (Temporary, ...	1,372	1,248	95	89	7	7	1,474	1,344	2,818	20.2	119	125	2	3	—	1	121	129	250	2.3
Decayed, (Permanent, ...	—	—	769	924	33	42	802	966	1,768		—	—	88	158	11	14	99	172	271	
Tonsils, ...	913	861	480	460	55	97	1,448	1,418	2,866	12.6	169	181	95	95	26	52	290	328	618	2.7
Nose and Adenoids, ...	179	181	51	53	35	42	265	276	541	2.4	47	56	24	18	19	26	90	100	190	0.8
Throat, (Glands, ...	998	942	270	299	29	55	1,297	1,296	2,593	11.4	18	20	2	7	6	5	26	32	58	0.2
External Eye Disease, ...	215	246	91	98	82	124	388	468	856	3.8	98	89	21	24	41	62	160	175	335	1.5
Vision—distance test, ...	25	28	457	602	280	471	762	1,101	1,863	*17.7	26	25	449	589	273	454	748	1,068	1,816	17.2
Squint, ...	121	114	48	38	60	64	229	216	445	1.9	10	7	2	1	7	4	19	12	31	0.1
Ear Disease, ...	125	100	52	55	59	42	236	197	433	1.9	95	86	49	45	54	35	198	166	364	1.6
Wax, ...	260	267	200	172	19	29	479	468	947	4.2	86	96	77	61	13	14	176	171	347	1.5
Hearing, ...	15	40	82	98	51	73	148	211	359	1.6	2	15	30	31	30	36	62	82	144	0.6
Speech, ...	50	32	56	23	56	21	162	76	238	1.04	1	3	1	1	1	3	3	7	10	0.04
Mental (Dull, ...	27	19	16	19	32	25	75	63	138	0.6	—	—	—	—	—	—	—	—	—	—
Condition, (Deficient, ...	6	5	7	—	12	7	25	12	37	0.1	—	—	—	—	—	—	—	—	—	—
Heart and Circulation, ...	17	12	36	44	4	6	57	62	119	0.5	3	5	4	2	—	2	7	9	16	0.07
Lungs, ...	160	102	28	13	3	5	191	120	311	1.4	29	23	2	1	—	5	31	29	60	0.3
Nervous (Epilepsy, ...	—	2	3	—	1	—	4	2	6	0.02	—	—	—	—	1	—	1	—	2	0.004
Disease, (Chorea, ...	—	1	1	2	1	1	2	4	6	0.02	—	1	—	—	—	1	—	2	2	0.008
Paralysis, ...	6	8	2	3	2	3	10	14	24	0.1	—	—	—	—	—	—	—	—	—	—
Tuberculosis—Pulmonary, ...	—	4	—	—	—	3	—	7	7	0.03	—	4	—	—	—	3	—	7	7	0.03
Do. —Osseous, ...	8	6	4	3	4	4	16	13	29	0.1	1	1	—	—	2	2	3	3	6	0.02
Do. —Glandular, ...	4	7	3	3	9	7	16	17	33	0.1	—	3	1	—	7	4	8	7	15	0.06
Rickets, ...	94	82	14	7	7	12	115	101	216	0.9	1	1	—	—	—	1	1	2	2	0.008
Deformities, ...	69	53	40	16	5	13	114	82	196	0.8	—	1	—	—	—	1	—	2	2	0.008
Infectious Disease, ...	6	7	1	—	3	1	10	8	18	0.07	6	7	1	—	3	1	10	8	18	0.07
Other Diseases or Defects, ...	173	176	89	117	38	56	300	349	649	2.8	41	55	17	15	12	28	70	98	168	0.7

* Infant Group not included.



SUPPLEMENTARY VIDIMUS B.—INFANTS NEWLY ENROLLED, &c.

18

NUMBER OF SCHOLARS EXAMINED, AND THE NUMBER OF CONDITIONS RECORDED.

SCHOLARS PRESENTING CONDITIONS OF WHICH THE PARENTS WERE NOTIFIED—AND THE NATURE OF CONDITIONS REQUIRING ATTENTION.

	INFANTS.		SELECTED.		TWO GROUPS.		TOTAL.	PER-CENTAGE.	INFANTS.		SELECTED.		TWO GROUPS.		TOTAL.	PER-CENTAGE.
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.			Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		
Scholars examined, ...	2,124	1,971	56	50	2,180	2,021	4,201	—	338	405	40	41	378	446	824	19.6
Clothing and Footgear, ...	38	19	6	1	44	20	64	1.5	13	9	5	1	18	10	28	0.7
Nutrition, ...	41	57	—	1	41	58	99	2.3	6	10	—	1	6	11	17	0.4
Head (Nits, ...)	46	339	3	13	49	352	401	9.5	33	180	3	13	36	193	229	5.4
Pediculous, (Lice, ...)	113	129	15	15	128	144	272	6.5	113	129	15	15	128	144	272	6.5
Dirty Body, ...	26	13	2	1	28	14	42	1.0	26	13	2	1	28	14	42	1.0
Contagious (Impetigo, ...)	14	9	—	1	14	10	24	0.6	7	4	—	1	7	5	12	0.3
Skin (Ringworm, ...)	1	3	1	2	2	3	5	0.1	1	3	1	—	2	3	5	0.1
Diseases, (Scabies, ...)	3	1	5	2	8	3	11	0.3	3	1	5	2	8	3	11	0.3
Teeth (Temporary, ...)	454	377	2	1	456	378	834	19.8	19	25	2	1	21	26	47	1.1
Decayed, (Permanent, ...)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nose and (Tonsils, ...)	229	209	—	—	229	209	438	10.4	49	46	—	—	49	46	95	2.3
Throat, (Adenoid, ...)	80	78	1	1	81	79	160	3.8	26	13	1	1	27	14	41	1.0
External Eye Disease, ...	358	296	—	1	358	297	655	15.6	4	5	—	1	4	6	10	0.2
Vision—distance test, ...	96	105	6	6	102	111	213	5.07	44	45	5	7	49	52	101	2.4
Squint, ...	—	2	2	2	2	4	6	0.1	—	2	—	1	—	3	3	0.07
Ear Disease, ...	42	38	—	1	42	39	81	1.9	21	16	—	1	21	17	38	0.9
Wax, ...	43	36	3	—	46	36	82	1.9	28	25	3	—	31	25	56	1.3
Hearing, ...	61	61	—	1	61	62	123	2.9	16	20	—	1	16	21	37	0.9
Speech, ...	9	8	1	—	10	8	18	0.4	2	1	1	—	3	1	4	0.09
Mental (Dull, ...)	9	7	—	—	9	7	16	0.4	—	—	—	—	—	—	—	—
Condition, (Deficient, ...)	10	2	—	—	10	2	12	0.3	—	—	—	—	—	—	—	—
Heart and Circulation, ...	1	—	—	—	1	—	1	0.02	—	—	—	—	—	—	—	—
Lungs, ...	8	3	1	1	9	4	13	0.3	3	1	1	1	4	2	6	0.1
Nervous (Epilepsy, ...)	48	46	—	1	48	47	95	2.3	6	11	—	1	6	12	18	0.4
Disease, (Chorea, ...)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis—Pulmonary, ...	—	1	—	—	—	1	1	0.02	—	1	—	—	—	1	1	0.02
Do. —Osseous, ...	5	1	—	—	5	1	6	0.1	1	—	—	—	—	—	—	—
Do. —Glandular, ...	—	—	—	—	—	—	—	0.02	—	1	—	—	—	—	—	—
Rickets, ...	1	—	—	1	1	1	2	0.05	1	—	—	1	1	1	2	0.05
Deformities, ...	54	30	—	—	54	30	84	2.0	1	—	—	—	1	—	1	0.02
Infectious Disease, ...	6	7	—	—	6	7	13	0.3	—	—	—	—	—	3	3	0.07
Other Diseases or Defects, ...	—	3	—	—	—	3	3	0.07	—	3	—	—	—	—	—	—
	44	50	1	3	45	53	98	2.3	18	11	1	1	19	12	31	0.7



Although a very large number of defects was observed during the examination of the pupils, many of these were of a minor nature, and did not call for any special treatment. Only those defects which were considered detrimental to the health of the child, or which interfered with the educational progress of the pupil, were reported to the parents with a view to having them remedied as far as possible. Thus, although 26,064 defects were observed and taken note of, only 8,536, or, roughly, 33 per cent., were of such a nature as to call for a notice being sent to the parents. Of all the pupils examined (26,887) 6,781 were found to be suffering from one or more conditions which demanded immediate attention. As in last year's report, the nature of the defects or abnormal conditions recorded in the schedule of each pupil is summarised for the whole County in Vidimus B and B (Supplementary). These defects are discussed in the following pages under their respective headings:—

Height and Weight of Pupils.—All the children examined as routine cases were weighed and measured at the time of the examination, and the results noted on the "Record" card. There is a tendency to attach far too much importance to the mere height or weight of the school children, and this is to be regretted. The height of a child or its weight, considered apart from its general health and physique, is of little moment, except for statistical purposes. A child's health does not depend upon mere inches, nor its physique upon mere ounces. Small, wiry children come through the illnesses of childhood scatheless far more frequently than do their big, fleshy brethren, and, in after life, it is not always the large, heavy man who is accepted with alacrity by Insurance Companies.

Height and weight are certainly factors in the health of a child, but, after all, they are only factors, and usually unimportant ones at that. The elaborate compilation of statistical tables showing the respective heights and weights of children involves an expenditure, both of time and money, out of all proportion to any beneficial results which may accrue.

Again, the age periods which are usually embraced, 5, 6, 7 years and so on up to 13 years, are periods of rapid growth both in the height and weight of a child; and, unless the weighing and measuring are done not only at the same year but almost at the same month in all schools throughout the country, the results are not comparable. Thus, the height and weight of a child who is just 13 years old cannot be compared with that of a child who is 13 years and 6 months old, and the same applies to all the other age groups which are examined in school. Gross differences in the height or weight of pupils of the same age are of course significant, but surely the diagnosis of malnutrition, maldevelopment, or of grave disease does not depend on what the weighing machine or the measuring rod records.

Clothing and Footgear.—The same difficulty was encountered this year as in last year in estimating the sufficiency of the clothing and footgear of the pupils. The intimating of the date on which the medical inspection

takes place results, in many instances, in children who are habitually ill-clad being specially dressed for the occasion, and who, immediately after the examination, are sent to school in their former rags. In some cases the clothing, although plentiful, was exceedingly dirty, while, on the other hand, poverty was responsible for clothing which, though clean, was scanty and unsuitable. It is a regrettable fact that, of the groups of children examined, the chief sufferers in respect to insufficient clothing and footgear are the infant children, and this is all the more to be deplored seeing that those children are of such tender years as to be quite unable to help themselves in any way, and are entirely dependent upon their elders. The older pupils often wear clothing and footgear handed down to them by their parents, and although the appearance is sometimes ludicrous, still, in the winter months especially, such a small matter can be overlooked. Insufficient clothing was recorded in 477 of the infant pupils out of 16,547 examined, or 2.9 per cent; in 175 of the senior pupils out of 7,550 examined, or 2.3 per cent. That is, of the total routine cases, a percentage of 2.7. In addition to these routine cases 155 children were specially presented on account of being insufficiently clad or shod. It was again found this year that the boys were the chief sufferers, the ratio being rather more than 2 to 1. A notice calling the attention of the parents to the dirty or insufficient clothing of the child, and urging the need for remedy, was sent to 316 parents. However, there can be no doubt that the clothing and footgear of the pupils showed a marked improvement on last year, and although much still remains to be accomplished, it is encouraging to see that parents are bestirring themselves in this direction.

Nutrition.—The state of the bodily nutrition of the children examined, although still far from satisfactory, shows an improvement on last year. The majority of the cases of malnutrition were found in the congested industrial areas, and where present was allied with other evidences of neglect, such as insufficient diet, unhygienic surroundings, carelessness regarding the proper amount of sleep necessary for the young child, and overcrowding during the sleeping hours. All these combine to deteriorate the physique of the children. The diet of the ill-nourished children still consists largely of bread and jam and tea. Many parents consider that if "the loaf is always on the table" the children are bound to receive plenty of nourishment. But this is far from being the case. The diet, in addition to being wholesome, must be varied, and the constant repetition of the same diet day after day is not to be recommended. Poverty is not always the cause of ill-nourishment, nor parental illness the cause of neglect. Carelessness and thriftlessness must in many cases account for the badly-nourished state of the children, and drunkenness on the part of one or both parents is undoubtedly a powerful factor in, if indeed not the chief cause of, child neglect. In some cases constitutional weakness and inherited disability were present, and accounted for the ill-nourished state of the child, but these were few compared with those cases where the children suffered through the indifference or dissipation of their parents.

As was mentioned in last year's report, there are many schools where a hot meal is provided at mid-day to the pupils, especially during the winter months, and there can be no gainsaying the benefit which the children derive from such a meal. As each year goes on more and more schools, particularly those in the poorer quarters of our large towns and also in country districts, are providing this meal, and the numbers of children who partake of it amply show how much it is appreciated. The number of pupils recorded as undernourished was 749, or 2·8 per cent. of the three groups of children examined. The infant group was the principal one to suffer, and it is towards this group that any remedying of the condition ought, in the first instance, to be applied. In 133 cases was the undernourishment so extreme that the attention of the parents was called by special notice to the need for steps being taken to remedy the condition forthwith.

Lice and Nits.—Following the method adopted last year, this condition was recorded under two headings, viz., nits on the hair or body and lice on the head or body.

NITS.—The number of pupils suffering from nits on the hair or body is this year considerably less than last year. Thus, amongst the infant children 145 boys or 1·7 per cent., 1,454 girls or 18 per cent. were affected; whilst in the senior division 19 boys or 0·5 per cent., and 463 girls or 12·3 per cent. suffered from this condition. The percentages of last year show in the respective groups 1·9, 21·9, 0·6, and 15·8 per cent., giving a decrease this year in all groups. It will be clearly seen that the children principally affected are girls, and the incidence is much greater in the infant division, where, of course, the children are dependent on their elders for the proper care of their hair. The senior girls should be able to attend to themselves in the matter of cleanliness, and it is deplorable that there should be still such a large percentage of dirty heads amongst girls of 13 years and upwards. With reference to the boys who suffer from nits in their hair, there is absolutely no excuse for such being present. Short hair admits of easy and frequent cleansing, and if all school children—boys and girls alike—were to have their hair kept short till, say, 12 years of age, this most distressing and loathesome condition of uncleanness would soon be stamped out.

When nits were found on the body or in the seams of the child's clothing, they were, in the vast majority of cases, accompanied by body lice. Notices were sent in all cases where such nits were found, and instructions given as to the boiling of the clothing and the ironing of the seams, &c., with a hot iron.

In all notices sent to parents regarding the presence of nits on their children's hair printed instructions are enclosed, and, if these are followed, the nits will in due course be got rid of. But, undoubtedly, the best remedy where nits are present in large numbers on the head is the cutting of the hair short, and in less severe cases the exercising of constant attention

and scrupulous cleanliness is absolutely necessary. Although there was a decided improvement this year as regards the numbers recorded, there were more notices issued to parents owing to a stricter classification of those cases which called for immediate attention. In all, 1,206 such notices were sent.

LICE ON HEAD AND BODY.—This condition is of much less frequent occurrence than that of nits, for, although these latter may be strongly in evidence, a special cleansing of the garments and head the day before the medical examination occurs in most instances removes the actual vermin. Many cases were encountered where the evidences of a hasty cleansing were present, and although no lice were seen, yet the countless number of lice bites on the body and the presence of thousands of nits on both hair and clothing proclaimed what was the normal condition of the child as regards cleanliness. As in the case of nits and malnutrition, the infant children were the greatest sufferers, and the verminous condition of many of these little people was a standing disgrace to those responsible for the household. There is no excuse for the presence of lice on any child. Poverty cannot be adduced as a reason, for a supply of disinfectant soap is now given by the various health authorities without charge to all who take the trouble to apply for it. The real cause is indifference combined with laziness, and there are many parents who cloak their slothfulness under the pernicious assertion that "a child cannot be healthy without lice, that they themselves had vermin, and also their fathers and mothers before them." The vast majority of the cases of broken-out heads arose from verminous irritation of the scalp, and many children had to be excluded from school owing to the disgusting and foul condition of their heads. There is certainly a considerable improvement this year as compared with last year, but very much still requires to be done before it can be declared that the children in our schools are "clean." In every instance where lice were found either on head or body a notice was sent to the parents calling for the immediate remedying of the condition, and in many instances the children were excluded from school for a few days to enable efficient cleansing of the garments and body to be carried out. In all 1257 such notices were issued. Before leaving this section on cleanliness it should be stated that there were many cases found where the body was in an unwashed state, although no vermin or nits could be discovered on either body or clothing. This matter also calls for urgent attention, as there was often a very offensive smell from those pupils arising from dirty clothing and unwashed flesh. Again, the state of the finger nails certainly calls for attention, and the number of children attending school with long nails, which harboured an appalling amount of dirt, was surprising. This lack of attention to the keeping of the nails short did not by any means apply only to those children who gave other evidences of neglect. The condition was frequent amongst well-dressed, well-nourished, and well-cared-for children. This matter could be easily remedied if the teacher of the class made, say, a weekly inspection of the

hands of his pupils, and brought to book those who were neglectful of what is one of the simplest factors in personal cleanliness.

The active steps which are being taken, and what has been accomplished in the way of improvement, are discussed in a subsequent chapter under the heading of "Remedial Measures."

Contagious Skin Diseases.—(a) **IMPETIGO.**—This condition, which is so disfiguring while it lasts, is one which is easily cured, and it is a matter for great regret that parents are so careless in the carrying out of treatment. Few cases of impetigo require more than a week's treatment to effect a cure, and yet pupils were met with who had had the disease for many weeks. The disease is a contagious one, and is spread and propagated by direct contact. Thus, we find that children who had a very slight attack to commence with transplant the disease to different parts of their body by scratching. The condition is essentially one of dirt, and, in many cases where it originated on the scalp, the prime cause was verminous irritation. On the other hand, the scratching of the chin, face, or body with dirty nails which harbour the germ is undoubtedly the commonest cause of the outbreak. This fact should be clearly brought before all pupils, and is another strong reason why teachers should insist on their scholars keeping their nails short and scrupulously clean. Amongst the routine cases 113 boys and 92 girls were found to be affected with impetigo, and, in the selected group, 28 boys and 26 girls also suffered from the condition. Out of the 259 cases recorded, notices were sent to 176 parents, urging upon them the necessity for having the affection treated forthwith. In 28 cases the disease was so extensive that the pupils affected were excluded from school for a few days, to permit of treatment being thoroughly carried out.

(b) **RINGWORM.**—This condition, which is a parasitic disease, due to a vegetable fungus, was found in 40 of the pupils examined. As was the case last year, the disease was most prevalent amongst the infants, 13 boys and 9 girls being affected. Only one case—a boy—was found in the senior group. Amongst the selected pupils 11 cases were discovered at the time of the routine examination, but, on revisits being made to the schools, other 7 cases were found. Two chief varieties of the disease were recognised, viz., ringworm of the scalp, and ringworm of the body. These two varieties differ very much in their method of being treated, in the resistance they offer to remedial measures, and in the period of time necessary to effect a cure, and consequently it was considered desirable to classify them into two distinct groups. Ringworm of the head, which affected 29 of the pupils, is a disease which is located principally on the hairy portion of the scalp. The disease is an insidious one, and may be present for months before being recognised. By the time that parents and teachers suspect that there is something wrong with the child's head, the fungus is often widely spread. Many parents and teachers do not

fully recognise the gravity of the condition, and the former especially are slow in seeking medical advice, whilst the latter are often loth to exclude the child from school. Formerly the curing of an attack of ringworm of the scalp was a tedious process, lasting in many cases for months, but now, with improved methods of treatment, the time necessary to effect a cure can be greatly reduced. However, even in the mildest case, at least a month is required, and, where the disease is extensive and resistant, this time is often greatly exceeded. What has been done by way of treatment and prevention will be discussed in a subsequent section of the report.

Ringworm of the body was less frequently met with. This, of course, does not necessarily mean that the disease is less common than ringworm of the scalp. In fact, the disease is much commoner. However, it is easily recognised both by parents and teachers, and the children are placed under medical care without delay. The disease is usually very amenable to treatment, and, in the great majority of cases, 10 or 12 days are quite sufficient for a cure. Altogether only 11 cases of this type of ringworm were met with in the schools.

(c) SCABIES.—This disease, which is commonly known as "Itch," is due to a parasite called the "*Acarus Scabiei*," which burrows underneath the skin, where it deposits its eggs. The hatching of the eggs causes the intense itching from which the disease takes its popular name. The condition is a contagious one, and, when it is widely spread over the body, the period of cure is frequently a protracted one. The principal sites of the disease are the hands, especially between the fingers, the wrists and forearms, and the inner aspect of the thighs, these being the parts which are most frequently scratched by the sufferer. The face is seldom, if ever, affected. The vigorous scratching of the affected parts usually results in impetiginous sores, which add to the distress of the patient. As can be imagined, many members of the same family suffer from the disease through wearing the clothing of the person first affected, and through the bed-clothing. The curing of the disease demands extreme care and patience on the part of the parents, involving, in addition to the prescribed medical treatment, the strict attention to the disinfection of the personal clothing of the child affected, and also of the blankets, &c., of the bed in which the sufferer has slept. Every case of scabies met with in the schools was excluded forthwith, and, in addition to the intimation sent to the parents, a notice was also sent to the public health authority of the district in which the affected child resided. There were more cases of itch encountered this year than last, and in one school board area a small epidemic of the disease prevailed. In one school alone no fewer than 11 cases were excluded. Amongst the infant children there were 11 cases of scabies, and in the senior division 5 cases. In the selected group of children 26 cases were met with. This makes a total of 42 cases discovered during the routine examination. In addition to this number 15 cases were met with whilst revisiting the schools.

Teeth.—It is a matter for regret that there is little improvement, if any, in the state of the teeth of the school children as compared with last year. No fewer than 5,328 pupils examined as routine cases suffered from defective teeth, *i.e.*, 22.1 per cent. Add to this number 92 selected cases where the teeth also were very unsatisfactory. In very many instances, not only did the children have decayed teeth, but, in addition, the gums were inflamed and tender, and on these being gently pressed pus could be seen welling up from the sockets. The condition of the mouth was frequently exceedingly foul, and the breath extremely offensive. No child can be expected to be healthy if there is such a septic condition of the mouth, and, no doubt, much of the pallor of those children arises from the septic absorption from these suppurating teeth, and from the improper mastication of the food. The presence of bad teeth was not confined to the poorer classes of the community, but, on the contrary, the condition was rather more prevalent amongst those children who appeared to be well nourished and otherwise well cared for. Parents are exceedingly neglectful with regard to the teeth of their children, and, if the enthusiasm displayed over the appearance of the baby's first tooth were only continued with regard to the child's subsequent teeth, more care and attention would be bestowed on what is undoubtedly one of the greatest factors in good health, and would result in comelier and healthier young men and women.

Following the procedure of last year, notices were sent in all cases where there was a septic condition of the mouth or gums arising from bad teeth, when there was a likelihood of the child's health being undermined by the presence of decayed teeth, and where there were eight or more carious teeth present. These special notices were sent to 568 parents. Enclosed along with each notice was a card with printed instructions as to the cleansing and care of the teeth.

Nose and Throat.—**TONSILS.**—There were fewer cases of tonsillar enlargement met with amongst the school children this year than last. This may be due to parents becoming more fully alive to the possible dangers arising from enlarged tonsils, and seeking medical advice early when the child complains of sore throat, &c. On the other hand, it is well known that there are years when, as a result of climatic conditions, certain diseases are more prevalent than at other times, especially those diseases affecting the nose, throat, and respiratory passages, and it is quite possible that next year there may be a decided increase in the number of cases of enlarged tonsils, chest troubles, &c., compared with this year. Notwithstanding the decrease in numbers, however, there was still a very large number of cases met with where there was an enlargement of one or both tonsils. Frequently there was no apparent inconvenience to the child either in the matter of breathing or speech, but in many cases there was decided detriment to the health and scholastic progress of the pupil. Thus the speech was frequently thick, and articulation imperfect; recurrent attacks of partial deafness; and frequent absences from school because of "sore throat." In several cases the

tonsils were of enormous size, completely obscuring any view of the back of the throat. Minor degrees of enlargement of the tonsils were ignored, and even when moderately enlarged, if there were no harmful effects arising from the condition, the enlargement, although noted, was not reported to the parents. In every case, however, where the increase in size was extreme, or where the swollen tonsils were exercising a prejudicial effect on the child's health or schooling, notice was sent to the parents drawing their attention to the condition, and requesting them to have the child placed under the care of their own doctor.

In all, the number of cases of enlarged tonsils recorded was:—Infants—boys, 1,142 or 13·4 per cent.; girls, 1,070 or 13·5 per cent. Seniors—boys, 480 or 12·6 per cent.; girls, 460 or 12·2 per cent. In addition, 152 cases of tonsillar enlargement were found amongst the selected children. Special notices were issued to **713** parents.

ADENOIDS.—This condition, which accounts for so much of the "mouth-breathing" found amongst school children, is due to overgrowth of the lymphoid tissue which is normally present in the naso-pharynx (the space between the nose and throat). This excessive growth may be so extreme as to block up almost completely the naso-pharyngeal passage, so that the child is unable to inspire the air through the nostrils and must breathe through the mouth. This, of course, may result in bronchitis, sore throats, and other diseases of the respiratory passages, and, if the condition is allowed to persist, there is improper development of the jaw, roof of the mouth, nose, teeth, chest, &c. The children, in course of time, acquire an exceedingly stupid look—the mouth is always open, the nostrils narrow and pinched, the front teeth overlapping, the roof of the mouth narrow and highly arched, and the whole facial expression one of dullness and stupidity. Parents should, in all cases, suspect nasal obstruction if the child persistently snores at night, or if there is profuse discharge from one or both nostrils. Adenoids may be the cause, or it may be due to the presence of polypi, diseased bone in the nose, enlarged turbinate bones, or deviation of the nasal septum. But whatever the obstruction may be, no time should be lost in having the condition seen to, and remedial measures promptly taken.

The number of pupils noted as suffering from adenoids was:—Infants—boys, 259 or 3 per cent.; girls, 259 or 3·2 per cent. Seniors—boys, 51 or 1·3 per cent.; girls, 53 or 1·4 per cent. In addition to these routine cases, 79 children were found to be suffering from the condition in the selected group. Special notices were sent to parents in **231** cases.

GLANDS.—The number of school children recorded as having enlarged glands was:—Infants—boys, 1,385 or 15·9 per cent.; girls, 1,238 or 15·4 per cent. Seniors—boys, 270 or 7·4 per cent.; girls, 299 or 7·9 per cent. In addition to these, 85 cases were recorded amongst the selected children. Special notices were sent to parents in **68** instances where the degree of enlargement was extreme and where nothing was being done in the matter of treatment.

As compared with last year, the percentage of children suffering from glandular enlargement is a good deal smaller. It is to be hoped that not only will the improvement be permanent, but that it will also be progressive. However, as in the case of enlarged tonsils, there are certain factors at work, chief of which are the state of trade in the County, which will reflect on the nourishment of the children, the climatic conditions, the presence or absence of severe epidemics, &c., all of which affect the general health of children, and consequently the tendency to glandular enlargement. What was said in the previous report on the chief causes of enlarged glands is still true, and parents should see to it that the child's teeth, gums, and mouth are kept in as healthy and sweet a condition as possible. Broken-out heads were the cause of several cases of enlarged glands, especially those situated on the back of the neck; and in several instances the irritation caused by impetigo on the chin resulted in great swelling of the submental gland. Of course in many cases there is a predisposition—usually inherited—to glandular enlargement, and where such children were affected, the enlarged glands were either already the seat of tubercular disease or were tending to become so. All cases where the glands were actively discharging, or where it was thought that treatment was urgently required, were excluded from school for varying periods of time to permit of treatment being carried out. It will be seen from the foregoing figures that the infant children were the principal sufferers, but this was to be expected, as they are also the ones to suffer most from malnutrition, vermin, and neglect. The enlargement of glands is not confined only to the poorer classes, but is prevalent also amongst many of the better-class children. The most regrettable part of it all is that a large percentage of the cases of adenitis is preventable, and is the result often of neglect—wilful or otherwise.

Eyes.—**EXTERNAL EYE DISEASE.**—The number of children recorded as suffering from some form of external eye disease was:—Infants—boys, 311, or 3·6 per cent.; girls, 351, or 4·3 per cent.; seniors—boys, 91 or 2·4 per cent.; girls, 98, or 2·6 per cent. In the selected groups 218 cases of external eye disease were found. The percentage of cases of eye disease does not show any very marked change this year as compared with last. Inflammation of the eyelids (*blepharitis marginalis*) was, as usual, the commonest affection found. This disease, which is quite amenable to treatment in its early stages, becomes, after a while, one of the most intractable of all diseases of the eyes. The result is that what, to commence with, was merely a simple case of blepharitis, develops later on, if neglected, into a chronic condition which is very unsightly. The number of young men and women one sees with red, sore-looking, and everted eyelids completely denuded of all traces of eyelashes, tells its own story of early neglect of a simple condition. Many parents only get alarmed when the child's eyelids commence to be misshapen and repulsive looking, and seek medical advice when the chance of cure is remote. Every case of blepharitis, no matter whether of the simple scaly variety or whether of

the ulcerative type, should be placed immediately under proper treatment, and, if this were done, an enormous amount of trouble would be obviated later. Several cases of eczema of the eyelids were also met with, but these were, almost without exception, due to early neglected cases of blepharitis. Epidemic ophthalmia was also found in several instances, and in one school board area was assuming epidemic proportions, no fewer than 13 pupils in the infant room of one school being affected with the disease. However, by rigid exclusion of all early cases, the condition was stamped out. An exceedingly common affection of the eyes was nebula. This is, as the name implies, a cloudy condition of the cornea, which tends to spread and form a complete opacity. The causes of this disease are somewhat varied, but there can be no doubt that the condition is aggravated by malnutrition and neglect. In some cases only one eye was affected, but in others both eyes were involved. A tubercular tendency in the child is an important factor in this disease. Other eye conditions met with were:—Conjunctivitis, mild or acute; interstitial keratitis; ectropion (eversion of the eyelid); lachrymal fistula; styas; and one case of phthisis bulbi. No case of trachoma has so far been found in any of the schools.

VISION.—Following the course adopted last year, vision testing in the case of the infant children was not undertaken as a rule, but was confined to the senior pupils and to the specially-selected children. However, where there was a strong suspicion that the eyesight of any pupil in the infant class was defective, vision testing was done. The number of scholars considered to be suffering from defective vision in one or both eyes was:—Seniors—boys, 457 or 12 per cent.; girls, 602 or 16 per cent. In addition, 755 of the selected children and 55 of the infant children were considered to be similarly affected. A notice was sent to the parents in each case of defective eyesight giving the degree of defect in each eye in accordance with Snellen's test types. It may be well to state here the procedure adopted in testing the vision of the pupils. The test card—on the principle of Snellen's test types—is hung on the wall or blackboard in the best possible light, and a distance of twenty feet (6 metres) is marked off. Each child to be examined is then made to stand exactly in front of the card at this distance, and each eye is separately tested. The child is instructed to commence with the largest letter and read downwards through the various types, the last size of type which he can read with ease being the measure of his distance vision for that eye. Normal vision varies from $\frac{6}{6}$ to $\frac{6}{9}$ according to this method of examination, but in the younger pupils a variation up to $\frac{6}{12}$ was allowed. In a good many instances senior pupils and specially-selected children were found who were slightly defective in vision, but, there being a history of recent illness, the defect, although noted, was not intimated to the parent as, with improving health and a return to the normal condition, it was considered that the slight defect in vision would probably disappear. These cases were seen when a revisit was made, and, in the great majority of instances, the eyesight had become normal without any special treat-

ment. The incidence of defective eyesight was, as formerly, greater in the towns than in the country districts. The conditions of living are, of course, different, and the general health and physique are somewhat better in the country. Still, there was scarcely a country school where there was not one or more of the pupils with markedly defective vision. The habit of buying spectacles at the local ironmongers or jewellers still continues, and a large number of children were met with wearing glasses which were quite unsuitable. In some instances the children were wearing spectacles which had been handed down from their parents or even from their grand-parents, and, however valuable these glasses might be as heirlooms, they had certainly no value in correcting the vision of the child. Again, in certain of the larger towns the quack eye-specialist holds undisputed sway, and, instead of parents paying a moderate fee for skilled advice and having proper glasses prescribed for the child, they often paid extortionate sums for the worthless ointment and lotions prescribed by these charlatans. Not always were errors of refraction the cause of defective vision, but bad nebulous conditions of the cornea were also frequently responsible. The course of treatment for this condition is usually a long and tedious one, and, in addition to the local treatment, constitutional treatment has to be employed. This, extending as it does to many months, is usually perfunctorily performed after a few weeks, and the condition allowed to lapse back to its former state. When defective vision was due to errors of refraction, the better-class children were the chief sufferers, but when *nebulæ*, *keratitis*, &c., were the cause, the incidence was enormously greater amongst the poorer children. Neglect of early eye symptoms, malnutrition, and inherited tendencies all contribute to this. Taken all over, the number of recorded cases of defective vision, although still large, shows a decrease on last year's numbers. Notices were sent to 1,819 parents drawing their attention to the presence of defects in their children's eyes, and requesting them to have the condition seen to as soon as possible. Teachers were also instructed to place the defective children in as good a light as possible in the class rooms, and to exempt them from certain forms of work, such as writing and sewing, pending treatment being satisfactorily carried out.

SQUINT.—This condition was found in the following number of school children:—Infants—boys, 163 or 1·9 per cent. ; girls, 152 or 1·9 per cent. Seniors—boys, 48 or 1·2 per cent. ; girls, 38 or 1 per cent. In the selected group 125 pupils were affected.

Squint was responsible for many of the cases of defective eyesight met with. In the majority of instances both eyes were affected, and the commonest variety of the condition was the convergent. Even when only one eye suffered, the usual condition was one of internal strabismus, *i.e.*, the affected eye looked inwards towards the nose. A few cases of external strabismus were found affecting one eye, but in no case was there a double-diverging squint seen. Squint, however slight, always gives a

disfiguring appearance to the face, and, in addition, there is the grave danger of the eye becoming useless owing to disuse—atrophy of the retina and optic nerve. The condition is fairly often seen following upon a severe illness—such as scarlet fever, measles, diphtheria, cerebro-spinal fever, &c.—but in the great majority of cases there was no history of severe antecedent illness. Without doubt errors of refraction, astigmatism, near-sightedness, &c., account for most of the cases of squint in children, and the child should be placed under proper treatment, and have the condition rectified by means of suitable glasses as soon as the squint develops. Unfortunately many of the cases have been in existence for two or three years before the child comes to school, so that much valuable time has been lost. Considering how easily the condition can often be rectified by glasses, and what can now be accomplished in the way of surgical treatment if the case is seen early, it is a matter for great regret that parents allow a condition at once so harmful and so disfiguring to exist for years without making the slightest attempt to have the condition remedied.

Ears.—**INFLAMMATION**—Discharging ears were the commonest of all the ear affections found during the examination. This condition is exceedingly common, especially amongst the younger pupils, and is one which is not only dangerous to the child affected, but also offensive to his school companions. The discharge was often of a catarrhal nature, clear, watery, and odourless, but by far the commonest discharge was the purulent, foul-smelling one. This latter is a very serious condition, indicating, as it does, disease of the middle ear. The consequences of such an affection may be permanent deafness, disease of the mastoid bone, and, in some instances, inflammation of the brain. Notwithstanding the gravity of the disease, instances were many where the discharge had been going on for months and even years, without any further treatment than an occasional washing of the external ear, or the swabbing up of the discharge when it threatened to overflow on the child's neck. It was pitiful to find, in some cases, the external ear in an eczematous state owing to the irritation caused by long continued discharge, and still no serious step had been taken in the matter of curing the disease. The condition certainly requires long-continued treatment, it may be lasting for months, but surely a few months' careful attention should not be grudged when the child's hearing—nay, even its very life is at stake. In several cases the purulent discharge was so offensive that the odour pervaded the whole classroom in which the child sat. Such cases were excluded from school to permit of treatment being instituted, and were not allowed back to school till the discharge had lost most of its offensive features.

While on the subject of ear disease, it might be well to mention some of the conditions met with affecting the external ear. Chief of these was eczema extending over the surface, or situated on the posterior aspect of the ear. In this latter site it was usually associated with intertrigo, and often had been in existence for months without any treatment having been

undertaken. The barbaric custom of piercing the lobes of little girls' ears is, unfortunately, not yet obsolete. There seems to be a deeply rooted superstition that the piercing of the ear has a beneficial effect on the eyesight, and, if parents would stop at the piercing there would be little or no bad result apart from the torture to which the child has been subjected, but, unfortunately, various rings, &c., are inserted, but whether with a view to warding off the "evil eye" or to enhancing the beauty of the child is not known. Several cases were found where severe ulceration of the lobe of the ear had resulted owing to the irritation caused by these rings, which were made of various materials—copper or brass wire, german silver, and, in one instance, twisted strands of thread.

The number of pupils recorded as suffering from inflammatory conditions of the ear was:—Infant—boys, 168, or 1·9 per cent. ; girls, 136, or 1·6 per cent. Seniors—boys, 52, or 1·3 per cent. ; girls, 55, or 1·4 per cent. In addition 104 cases were recorded amongst the selected children. Special notices were sent to parents in 420 cases.

WAX.—An accumulation of wax in the ears was still found in many of the pupils. In the infant group 321 boys, or 3·7 per cent. ; and 328 girls, or 4 per cent. were affected ; whilst in the senior group 200 boys, or 5·2 per cent. ; and 172 girls, or 4·5 per cent., suffered from the condition. In addition 49 cases were found amongst the selected children. Special notices were sent to parents in 384 instances. It will be seen from the foregoing figures that this is a condition which affects pupils of all ages, and, in fact, is rather commoner amongst the senior children. The degree of accumulation of wax varied from a small soft plug up to a hard concretion which completely blocked the entire orifice. This latter variety must have been present for a long time—for many months, if not even years. The hearing was in many cases not interfered with, but in others there was, undoubtedly, a degree of deficiency in hearing quite commensurate with the extent of the obstruction. If children were taught to thoroughly dry their ears after washing, and, especially, to see that all soap is removed, there would be fewer cases of hard concretions in the ears. Of course, in the case of those children whose ears are not washed for months on end, the cure is simply a matter of cleanliness. A good deal of nonsense is written and spoken regarding the danger of going as far into the ear as possible with a corner of the towel, but this is absolutely essential if the ear has to be kept free from dust and wax, and few, if any, are the instances where the slightest bad effect has resulted.

HEARING.—The number of pupils recorded with defective hearing was:—Seniors, boys, 82, or 2·1 per cent. ; girls, 98, or 2·6 per cent. In addition 125 were recorded amongst the selected children as suffering from this condition. Special notices were sent to parents in 148 cases.

The hearing of the school children continues to be very satisfactory, and this year was even better than last. The testing of the hearing was not generally employed in the case of the infant children as their replies to the tests were very inaccurate and misleading. In some few cases,

however, simple tests were employed where deafness was suspected to exist. In the senior group the "whisper" test was the one usually adopted, each ear being tested separately. In this test there is less opportunity for the pupils wilfully deceiving the examiner, as they are asked to give suitable replies to the questions put by the doctor. When the "watch" test is employed, the pupils, consciously or unconsciously, often give wrong replies, and so much valuable time is lost. The various causes of deafness amongst the pupils can be summed up as follows:—Perforation of drum of ear (probably due to long continued ear discharge), plugs of hard wax, thickened tympanum, catarrhal conditions of Eustachian tube, presence of adenoids and enlarged tonsils, and in some cases congenital deafness.

Speech.—The number of cases of defective speech was comparatively small, being in all 270. This total was made up as follows:—Infants—boys, 59, or .6 per cent.; girls, 39, or .4 per cent. Seniors—boys, 56, or 1.4 per cent.; girls, 23, or .6 per cent.

The commonest defect in speech was, as formerly, "stammering." This affection is very distressing, especially when the condition is a pronounced one. It is not so common amongst the infants as amongst the older pupils, and boys suffer much more frequently than girls. The condition is one largely, if not entirely, of nervous origin, and, with care and patience, should be greatly ameliorated, if not entirely cured. When the condition appears early in life and persists through the school period of the child, the chances of a cure are not so favourable as when it appears in a child, say, at ten years or upwards. In certain of the cases met with the tendency towards stammering was inherited. Gross defects in speech were found in children who suffered from cleft palate, harelip, or other malformation of the speech mechanism. Apart from the foregoing, there were few cases where defective articulation and enunciation were not the result of carelessness. Children may be conscientiously taught in school the rules and art of clear and correct speech, but it is the home associations which, after all, determine what the speech shall be. One cannot look for perfect speech amongst children whose whole early life, and three fourths of the period of schooling are spent amidst surroundings where slurring of words, "slackness" of speech, and improper pronunciation are the normal condition of affairs. There is no doubt that the vast majority of children are bilingual. They have the language of the school and the language of the street, and it is the home conditions and surroundings which will ultimately determine which of these is to be the dominant one.

Where there was a condition present such as adenoids or enlarged tonsils interfering with the proper articulation of the child, notice was sent to the parents requesting them to have the defect remedied.

Mental Condition.—**MENTALLY DULL.**—The number of pupils who were classed as "Dull and Backward" was:—Infants—boys, 37, or .4 per cent.;

girls, 21, or .2 per cent. Seniors—boys, 16, or .4 per cent.; girls, 19, or .5 per cent. In addition to these, 57 selected cases were considered to belong to the same class.

Mental dulness amongst children, as amongst adults, is a purely relative term. Children do not all commence life on the same footing mentally, and it is as absurd to think that all children start with the same mental equipment as to consider that all commence life with the same bodily strength. Heredity is a powerful factor in the mental as well as in the physical progress of all children, and this fact must be recognised in estimating what really constitutes a dull and backward child. A knowledge of the antecedents of the child would certainly be of great value in estimating whether the progress at school was proportionate to the instruction given or not, but, unfortunately, this can rarely be obtained. There can be little doubt that the offspring of dull, mentally obtuse parents start life with a handicap of heredity that is not borne by children of parents who are highly intelligent. The teacher who knows the antecedent history of the child, who has probably passed through his hands successive members of the same family, who has watched carefully the scholastic progress of the child, and who knows the facilities the child has had for acquiring knowledge, is the one who should determine whether a child is dull and backward or not. Recognising this, it may be here stated that all children who have been recorded as mentally dull have been classed as such almost entirely on the advice of the teacher. Where backwardness in the child was deemed to arise from some physical defect, such as bad eyesight, deficient hearing, or malnutrition, the parents were notified of the defect, but no case of mental dulness *per se* was intimated to the parents.

MENTALLY DEFICIENT.—The number of pupils recorded as mentally deficient was:—Infants—boys, 7, or .08 per cent.; girls, 5, or .06 per cent. Seniors—boys, 7, or .18 per cent.; girls, 0. In addition, 19 cases were found amongst the selected children.

The above table does not, of course, give the total number of mentally defective children in the whole area, but merely indicates those found amongst the children who are attending school. In another section of this report will be found a complete account of all the defective children examined, and the subject of mentally deficient children is more fully discussed there. It will be sufficient to repeat here the difficulty there was in determining in every case whether or not a child was mentally defective, and following the procedure adopted last year, if there was reasonable doubt as to whether a child was merely dull and backward, although the dulness might be very marked, or whether he was mentally defective, the pupil was given the benefit of the doubt, and will come up for re-examination in the future.

The usual type of mental defect found was "Amentia," *i.e.*, the child never had had normal intelligence, even from early childhood. In most cases, when a complete history could be obtained, the parents had been

cognisant of the defect for many years. In other instances the arrest of mental growth was attributed to some accident or illness in early childhood, but much reliance cannot be placed upon such statements. A few of the cases were post-epileptic, but nearly all the cases of defect met with in the routine examinations were of the mild, harmless, amentia type. These children were certainly not making much progress at an ordinary school, but, until special provision is made for their education, they are certainly much better employed attending an ordinary school than in running about at home learning nothing but habits of laziness. In two of the cases the children were idiots, and in each the headmaster was advised to exclude the children from school should any tendency towards violence make its appearance.

Heart and Circulation.—The number of pupils recorded as suffering from some affection of the heart and circulation was:—Infants—boys, 25 or .29 per cent.; girls, 15 or .18 per cent. Seniors—boys, 36 or .9 per cent.; girls, 44 or 1.1 per cent. In addition, 12 cases were found amongst the selected children where some disturbance of the heart and circulation existed.

The number of cases of defective circulation is comparatively small, only 132 cases being recorded altogether. As formerly, the commonest defect was some slight functional disorder of the heart, which, with a little care and suitable treatment, would in all probability disappear without leaving any bad effects. It will be seen that the senior girls are the principal sufferers, and this is not surprising owing to the physiological changes which occur at this period of a girl's life. In the great majority of these cases the cause of the slight circulatory disturbance was anæmia, and although a soft hæmic murmur of the heart was heard, it neither caused anxiety in the mind of the doctor nor distress to the girl. In some cases organic disease of the heart was found, but in such instances there was usually a history of rheumatism, chorea, or other acute illness. A few cases of congenital heart disease were met with. Wherever valvular disease of the heart was observed, or where the pupils suffered from congenital cardiac incompetency, special instructions were given to the teachers regarding them, and exemption from drill, punishment, &c., was recommended.

Minor disturbances of the circulation were found, such as mild Raynaud's disease (*i.e.*, a defective circulation in the extremities—feet, hands, ears, &c.), chilblains on hands and feet, and cases where the circulation was feeble due to convalescence from some severe illness. All cases of organic disease of the heart and the most pronounced cases of functional disturbance were reported to the parents. In all, 22 such notices were sent. In the majority of cases the parents were fully alive to the condition, and already had the child under medical supervision.

Lungs.—The number of pupils recorded as suffering from some affection of the lungs was:—Infants—boys, 208 or 2.4 per cent.; girls,

148 or 1·8 per cent. Seniors—boys, 28 or ·7 per cent. ; girls, 13 or ·3 per cent. In addition, 9 cases were found amongst the selected children. Notices were sent to parents in 78 instances.

The commonest affection of the lungs met with was bronchitis. This condition, as will be seen from the above figures, was much more prevalent amongst the infant children than amongst the older pupils, but this is the usual experience in medical practice. Several of these little ones also suffered from enlarged tonsils, and were persistent mouth-breathers. In the majority of cases the bronchitis was of a very mild nature, but in a few instances the condition was acute, and the child was sent home from school forthwith. When bronchitis is of long standing and met with amongst the senior pupils, a more serious view of the condition is taken. One must always be on the guard against a commencing phthisis, and several of the cases, although showing no definite signs of being tubercular, were noted for future examination. In all cases of long-continued bronchitis the sputum of the child was examined bacteriologically, and in one instance, where the family history of the child was unfavourable, the pupil underwent a course of open-air treatment with good result.

Pulmonary phthisis ("consumption") is dealt with in a subsequent section.

Nervous System.—EPILEPSY.—The number of pupils recorded as suffering from this condition was :—Infants—boys, 0 ; girls, 2, or ·02 per cent. Seniors—boys, 3, or ·08 per cent. ; girls 0. In addition, 1 case was found amongst the selected children.

It is very gratifying to be able to state that the cases of epilepsy amongst the school children are few in number, only six cases being recorded in the course of the year. Only in two of these was the disease present in an aggravated form, and both cases were excluded from school for an indefinite period, to permit of treatment being systematically carried out. In the other four cases, the condition was one of "petit mal," *i.e.*, the very mildest form of epilepsy, and did not interfere with the child's progress at school. The above numbers do not, of course, give all the cases of epilepsy amongst children of school age in the area, as several other cases were seen at the special examination of physically and mentally defective children, and are dealt with in a subsequent section.

It is interesting to note that, in addition to the above cases of epilepsy, one child, a boy, was found to suffer from catalepsy. On hearing any sudden noise such as the falling of a book or slate, the sudden clapping of the hands, a loud shout, the sudden clang of a tramway gong, &c., he fell in a heap upon the ground and lay motionless for a few seconds. The parents were strongly advised to have the child educated at home owing to the risk he ran in the streets, or even in school, and, as they were in a position to do so, the recommendation was acted upon.

CHOREA.—Only 7 cases of chorea were found during the routine examination of the pupils. Two of the cases were in the infant group, 3

in the senior group, and 2 amongst the selected children. The cases were all mild, and had been more or less under treatment for some time. In three instances, however, where it was deemed advisable to exclude the pupils for a little while longer to permit of a cure being effected, the parents were advised accordingly.

INFANTILE PARALYSIS.—The number of pupils recorded as suffering from this disease was:—Infants—boys, 11, or .12 per cent.; girls, 9, or .11 per cent. Seniors—boys, 2, or .05 per cent.; girls, 3, or .08 per cent. In addition to these, 5 children in the selected group suffered from the complaint. It was only necessary to notify 1 case to the parents, as, in all other instances, the children had been or still were under medical supervision. In practically all of the cases was the disease arrested or quiescent, but it had left its effects behind in the way of atrophy of one or more limbs, and paresis, or even paralysis of a member, and in more than one case was there an accompanying mental weakness. Suitable drill and exercises were recommended for these pupils, and it is quite possible that, in course of time, a great amelioration in their physical condition will be brought about. Several other children who had suffered severely from the condition, and where the atrophy and paralysis were such that they could not attend an ordinary school, were examined along with other physically and mentally defective children, and are reported upon in a subsequent section.

Tuberculosis.—This disease, as formerly, has been recorded under three headings, (*a*) pulmonary, (*b*) osseous, and (*c*) glandular, and each variety is dealt with in the following paragraphs:—

PULMONARY.—The number of pupils recorded as suffering from pulmonary tuberculosis was:—Infants—boys, 0; girls, 5 or .06 per cent. Seniors—boys, 0; girls, 0. In addition, 3 cases were found in the selected children. It is very satisfactory to record that only 8 cases of pulmonary phthisis were found during the routine examination of the pupils. There were a few cases of this disease met with during the special examination of the physically-defective children, but these, although of school age, were not in regular attendance at any school. It is interesting to note that, while last year 66 per cent. of the cases recorded were boys, this year of the 8 cases recorded all are girls. Phthisis pulmonalis, better known as "consumption," is undoubtedly the most important of all the varieties of tuberculosis, not only because of the serious consequences to the sufferer, but also from its powers of infectivity. There is no middle course to be adopted in dealing with a case of phthisis pulmonalis in the schools. The case *must* be excluded, not only in the interests of the child affected, but also as a measure of precaution to the other children. No excluded case of phthisis should be readmitted to school till all symptoms of the disease have disappeared, and the child, in addition to having a certificate of fitness from his own doctor, should be presented for examination to the school doctor at his first visit. In every case where phthisis pulmonalis was found, the child

was forthwith excluded from school for a period of at least six months, and the case was reported to the Medical Officer of Health of the area in which the child resided. Some of the cases were treated with benefit in one or other of the County hospitals.

OSSEOUS.—The number of pupils recorded as suffering from osseous tuberculosis was :—Infants—boys, 8 or ·09 per cent. ; girls, 6 or ·07 per cent. Seniors—boys, 4 or ·1 per cent. ; girls, 3 or ·08 per cent. In addition, 8 cases were found amongst the selected children. As most of the children affected were having the disease properly treated, it was only necessary to notify 6 of the cases to parents urging upon them the necessity for placing the child under medical care.

This variety of tuberculosis is much more frequently met with than the pulmonary, and although it is not so greatly to be dreaded as the latter, still the condition is certainly a grave one, especially when it is widely spread and active. As the name implies, it is the bones which are involved in this type of tuberculosis, and although practically any bone can be affected, yet there are certain sites for which the disease seems to have some special affinity. These sites are chiefly the hip-joint, elbow-joint, spinal bones, bones of foot and hand, knee-joint, &c. In the majority of cases the disease was cured or, at least, inactive, and was only recognisable from the effects it had left behind in the way of deformity (hunchback, shortened limb, ankylosed joint, &c). In other cases, however, the disease was active and acute, and when such were found the children were excluded from school for varying periods, according to the degree of the disease. In minor cases where perhaps only a finger joint was affected, and where the condition was being properly attended to, the children were allowed to continue at school, but there is no doubt that all cases of tubercular disease—whether pulmonary, osseous, or glandular—would benefit very much from open-air treatment. It is satisfactory to note that although the number of pupils examined this year is considerably larger than last year, yet there are fewer cases of osseous tuberculosis recorded.

GLANDULAR.—The number of pupils recorded as suffering from glandular tuberculosis was :—Infants—boys, 5 or ·06 per cent. ; girls, 7 or ·08 per cent. Seniors—boys, 3 or ·08 per cent. ; girls, 3 or ·08 per cent. In addition, 17 cases were found amongst the selected children.

The improvement in the number of children recorded as suffering from tubercular disease of the glands is this year very marked. This is no doubt partly accounted for by the stricter classification of such cases, and no case was noted unless there was sure evidence of the glands having become tubercular. A very large number of cases of enlarged glands was recorded, and although many of these will doubtless become tubercular if not properly treated, still they were not, this year, recorded as tubercular unless they were actually involved in tubercular degeneration. The channels of infection, especially when the glands of the neck are involved, are undoubtedly carious teeth and enlarged tonsils, and this fact should be brought home very strongly to those parents who are careless about

what they consider to be very minor and trivial ailments. In many cases the discharging glands were being properly dressed and the child under suitable general treatment, but in others the discharge had been going on for many months with only spasmodic attempts at cure, or, indeed, with no attempt at cure at all. In a few instances where the general health was poor, and when the disease was active and wide spread, the child was excluded from school to permit of proper treatment being instituted.

In addition to these three chief groups of tubercular disease—pulmonary, osseous, and glandular—other conditions more or less intimately connected with tubercle were discovered:—Hydrocephalus (water in the head), 10 cases; lupus vulgaris, 1 case; and generalised struma, 3 cases.

Rickets.—The number of pupils recorded as affected with rickets was:—Infants—boys, 148 or 1·7 per cent.; girls, 112 or 1·3 per cent. Seniors—boys, 14 or ·36 per cent.; girls, 7 or ·18 per cent. In addition, 19 cases of rickets were found amongst the selected children.

The number of cases of rickets found amongst the school children is still fairly large. There were very few cases found where the disease was considered to be in an active condition at the time of the examination, but when there were suspicions of the disease being progressive, notices were sent to the parents requesting them to place the child under the care of their own doctor. The deformities resulting from the disease were various—bow legs, knock-knees, deformed chest, twisted spine, &c.—but these were pronounced long before the children came to school. The disease usually manifests itself in the early years of childhood, and, by the time the child comes to school the disease has become arrested, although the deformities persist. The disease is essentially one of improper feeding, lack of fresh air, and unhygienic surroundings, so that one would expect to find these determining factors more commonly in the large towns and congested areas. This, indeed, was what was found, for the great majority of the cases were met with in the larger towns which border on Glasgow, from which city most of the affected children came. Some of the worst cases of rickets are suitable for receiving instruction at a school for physically defectives when such schools are established.

Deformities.—Included in this group are such cases as bow-legs, hunchback, knock-knees, club-foot, &c., but these have already been mentioned under other headings—tuberculosis, rickets, and nervous diseases. However, in addition, certain deformities due to maldevelopment or to injury existed. The chief of these were—bifid uvula, 10 cases; deflected nasal septum, 9; undescended testicle, 2; cleft palate, 2; spina bifida, 1; meningocele, 1; torticollis, 2.

Other Diseases or Defects.—In addition to the foregoing, there was a large number of less commonly found diseases and defects. The number and variety of these are shown in the following list:—

Achondroplasia,	-	-	2	Albinism,	-	-	-	5
Acne	-	-	-	12	Alopecia,	-	-	22

Anæmia, - - - -	209	Ozæna, - - - -	7
Angioma, - - - -	11	Paronychia, - - - -	1
Blindness (total), - - - -	1	Phimosis, - - - -	1
" in one eye, - - - -	2	Psoriasis, - - - -	10
Bursitis, - - - -	2	Rhinitis, - - - -	9
Chlorosis, - - - -	6	Scarring (burns, &c.), - - - -	4
Coryza, - - - -	3	Seborrhœa, - - - -	107
Cyst (dermoid), - - - -	3	Sternum (depressed), - - - -	2
Dacryocystitis, - - - -	1	Stillicidium, - - - -	1
Deaf-mutism, - - - -	2	Syphilis (congenital), - - - -	2
Eczema Capitis, - - - -	92	Thyroid (enlarged), - - - -	14
Eczema Intertrigo, - - - -	20	"Tongue-tied," - - - -	2
Eneuresis, - - - -	14	Turbinates (enlarged), - - - -	5
Gastric Catarrh, - - - -	1	Urticaria, - - - -	3
Hæmophilia, - - - -	1	Verrucæ Vulgaris, - - - -	2
Hernia, - - - -	11	Word and figure blindness, - - - -	1
Herpes, - - - -	5	Worms (tape), - - - -	1
Ichthyosis, - - - -	19	Worms (thread), - - - -	9
Nasal polypi, - - - -	7	Xerodermia, - - - -	5
Œdema, - - - -	11		

Infectious Disease.—The number of cases of infectious disease in the schools still continues to be comparatively small. Amongst the routine children examined, only 49 cases were found. These were made up as follows:—Scarlet fever, 1; diphtheria, 1; post-diphtheric paralysis, 1; chickenpox, 4; Mumps, 7; whooping-cough, 6; epidemic ophthalmia, 27. Two other cases were notified also because of the strong suspicion of tuberculosis being present, viz., bronchitis and chronic ulceration of cornea. All cases of infectious disease were notified and excluded from school as soon as the condition was recognised.

EXCLUSIONS.—The following tabular statement shows the number of scholars excluded from attendance at school, the disease or cause for which exclusion was necessary, and the various Health Authorities which were notified of these conditions:—

HEALTH. AUTHORITY.	SKIN CONDITIONS.			TUBERCULOSIS.		Other Forms.
	Ringworm.	Scabies.	Impetigo.	Pulmonary.	Glandular.	
COUNTY.						
Upper Ward, ...	7	—	2	2	1	—
Middle Ward, ...	9	19	17	1	2	—
Lower Ward, ...	5	3	1	3	1	1
BURGHES.						
Airdrie, ...	2	2	—	1	1	—
Coatbridge, ...	2	3	—	—	1	2
Hamilton, ...	2	1	2	1	—	2
Lanark, ...	—	—	—	—	—	—
Motherwell, ...	8	27	5	—	1	—
Maryhill (Glasgow),	1	—	—	1	—	—
Rutherglen, ...	3	—	—	—	—	—
Wishaw, ...	1	2	1	—	—	—

In addition to the above tabular statement the following conditions were recognised and excluded from school:—Scarlet Fever, 1; Diphtheria, 2; Chickenpox, 4; Mumps, 7; Whooping-cough 6; and Epidemic Ophthalmia, 27.

PART III.

REVISITING OF SCHOOLS.

This branch of medical inspection and supervision of school children is certainly one of the most important parts of the scheme. For one thing, the revisits are unannounced, and the Medical Officer thus finds the pupils in their normal state. When the date of the visit is intimated beforehand, many children come to school specially clothed or washed for the occasion, and a wrong impression may thus be conveyed to the doctor. Again, the revisiting of schools is absolutely necessary if one wants to ascertain what has been done or is being done in the way of remedial measures, for, in a matter of this kind, mere hearsay evidence of improvement is wholly unsatisfactory. The fact that the School Medical Officer may drop into a school at any time has a good effect in keeping children and parents alive to the necessity for cleanliness, &c., and acts as an incentive to those parents who soon get weary in well-doing, and lapse into careless ways again. Further, it may so happen that since the last visit of the School Doctor certain special cases requiring attention may have occurred, and these can be seen at once, and advice given as to the proper course to adopt. The necessity for the revisiting of a school is not equally urgent in all parts of the county. There are many schools throughout the area which are in a very satisfactory state both as regards the cleanliness and the health of the pupils, and there were even a few schools where a revisit was not considered needful at all. On the other hand, certain of the smaller schools showed such a bad state of cleanliness and unsatisfactory condition of health of the children that revisiting was absolutely necessary. But it is in the large schools in the industrial centres that there is the most clamant need for medical supervision, and it was towards these schools that the energies of the School Medical Officers were chiefly directed.

With the exception of five of the smallest and healthiest of the schools, every school was revisited at least once in the year. Thus, 237 schools out of a total of 242 were revisited once, 122 were revisited twice, and 7 were revisited on no fewer than three occasions. When a revisit is made to a school, the School Medical Officer has with him a form containing the names of all the children in that school whose parents were notified regarding some condition calling for attention, and these cases are again examined to see what improvement has taken place. Where there has been no improvement in the condition of the child, and no heed paid to notice, another notice, more strongly worded, is sent to the parents, calling for remedial measures to be undertaken. Thus, a complete record is kept of the progress of all children who, at the routine examination, were found to suffer from some defect demanding attention, and, at each revisit to the school, all of these children are re-inspected. The number of children seen during first revisits to schools amounted this year to 4,695,

those seen at second revisits totalled 3,032, while at the third revisit 156 were examined. This makes a total of 7,883 re-examinations because of some defect found at the routine inspection. Unfortunately, it is not always possible to see all those cases which one would like to see at a revisit. This specially applies to those children who are habitually sent to school in a dirty and neglected condition, for this class of child is notoriously irregular in attendance. Parents who are neglectful about the cleanliness, clothing, or nutrition of their children are no less indifferent regarding their schooling. Nevertheless, there is no doubt that the surprise visit of the School Doctor is the proper thing, and one might offer the suggestion here that all visits, including the routine visit, should be "surprise" visits so far as the pupils are concerned. The headmaster certainly would be notified of the intended visit, but it might be better if the parents were not made aware of the proposed visit. Against this, of course, is the fact that parents would be debarred from attending at the examination of their child, but, considering that not one parent in a hundred attends the examination, the hardship is more apparent than real. Teachers should take advantage of the revisits of the School Medical Officer to a greater extent than is done. Thus, at a revisit, the doctor has usually more time to spare than when conducting a routine examination, and can give more attention to special cases which are brought under his notice by the teacher. In the vast majority of cases the teachers are enthusiastic in the carrying out of the scheme, and take a keen interest in the cleanliness and good health of their pupils, but it must be stated that, in a few of the schools, the head teacher displays a degree of apathy almost amounting to antagonism towards the scheme of medical inspection. This is to be greatly regretted, for, unless there is whole-hearted and enthusiastic co-operation between School Medical Officers and teachers, no great advance can be made in the cleanliness of the pupils under their charge. The following extract from the last report of Mr. D. Munro Fraser, H.M. Chief Inspector of Schools in the Western Division of Scotland, to the Scotch Education Department is well worthy of consideration. Referring to the medical inspection of schools he says:—

"Co-operation between Medical Inspector and teachers is an essential condition of the success of every scheme. Unfortunately, there is reason to believe that, in a large number of schools, the teachers do not see eye to eye with the Boards in this matter. It would be deplorable if differences over details of administration and working were to hamper the development of a scheme to the usefulness and urgency of which all bear testimony."

PART IV.

REMEDIAL MEASURES.

The estimate of the benefit arising from the medical inspection and supervision of school children must necessarily be based on the remedial measures which follow as a result of the medical advice given, and the consequent betterment of the health, physique, mental state, and social condition of the children. The scheme in this County has not yet been long enough in operation to admit of any dogmatic statement being made regarding the benefits which will accrue, and, in fact, many years will probably have to pass before the improvement will be of such a degree as to be apparent to the casual observer. However, that there are definite signs of good arising from the scheme is readily conceded by all teachers, school managers, and others who come into close contact with the children of our schools. There are certain conditions in our schools in which the public are particularly interested, and it is with these conditions that the following report will principally deal.

CLEANLINESS.—Foremost of the conditions in which parents are principally concerned is cleanliness amongst the children. Parents recognise the risk their children run by sitting in school alongside of a dirty child, and a great load of anxiety would be lifted from the minds of anxious mothers if they could be assured that the risk of their children becoming contaminated with vermin at school had now ceased to exist. What is being done by the School Medical Officer to rid the schools of this pest is as follows:—All children who are found to be in a verminous state either of head, body, or clothing are excluded from school forthwith. A notice is written at once to the parent calling attention to the condition of their child, and is sent home along with the child. Three days are usually allowed for the cleansing of the child's body and clothing to be effected, and this is ample time. Where the condition of the child led one to suspect that the home conditions were unsatisfactory, the Health Authority of the area in which the home was situated was notified, and a sanitary inspector or health visitor visited these homes, with good results. Great assistance was also given to the parents in several instances by the school nurses, who also visited the homes and gave instructions as to the best method of keeping the children clean. There are certain of the parents who, in spite of repeated notices and visits from nurses or health visitors, persist in sending their children to school in a dirty condition, or, if cleansing is attempted, it is only done in a perfunctory manner, and soon the child is in as bad a state as before. Great patience and forbearance have been exercised with those parents, but, in future, more stringent measures will certainly have to be adopted, culminating in prosecution if necessary.

However, although much still remains to be done in the matter of cleanliness, much has been accomplished, and, undoubtedly, a wave of

cleanliness has passed over our schools. Whether this will be progressive and result in the pest of vermin being completely stamped out time alone will show, but it is encouraging to hear from teachers that a cleaner tone is already noticeable in the schools, and a healthier spirit of emulation as regards neatness and tidiness in dress. The older girls are taking a greater interest in the matter of their hair, clothing, &c., and there is no doubt that, in time to come, the gospel of cleanliness will have ardent advocates in every household. These senior pupils are the potential parents of the next generation, and it is to them that one has to look for the carrying out of the principles inculcated at school.

On revisits being made to ascertain what good had accrued from the advice given, the following results were obtained :—

Number of children notified for nits,	... ..	977
Number of children improved or cured at revisits,		549
Number of children notified for lice,	... ..	985
Number of children improved or cured at revisits,		544

VISION.—Another condition which has in recent years bulked largely in the public mind is the vision of the scholars attending school. Considering how great a bearing the matter of good eyesight has on the future prospects of the children, it is not to be wondered at that all right-thinking parents are now paying greater heed to a matter which was previously often lightly thought of. As has been stated, the condition of the eyesight of the children is not satisfactory, and strenuous efforts have been made to bring the gravity of the condition home to the parents and guardians. If a strict testing of vision were made in the case of all boys who apply for work on leaving school, and only those chosen whose vision was perfect, the ranks of the unemployed and the unemployable would be greatly augmented. Pupils whose eyesight has been found defective at the routine examination in school have their vision tested each time a revisit is made, and if no improvement has taken place, a second, and even in some cases a third notice is sent to the parents, calling upon them to have the eyes seen to as soon as possible. Each notice sent gives the amount of error in each eye according to Snellen's test type.

In a good many instances medical advice had been sought and treatment prescribed, but either through lack of means or growing indifference the course had not been fully followed out. There was a great number who paid no attention to the notices at all, and it is safe to say that in only about one-third of the cases notified was there the slightest attempt made to act on the advice given. There is undoubtedly a hardship involved in the case of parents who are situated in the remoter parts of the county, far away from the large towns where suitable glasses could be obtained, and the matter of expense is also often a serious one.

Although there was not that enthusiasm on the part of the parents which one would have expected, still, the results of the recommendations have been encouraging. The following table gives the number of cases of

defective vision in which medical advice had been sought, and where treatment had been instituted:—

Number of cases of defective vision notified, ...	1,816
Number of cases of defective vision where treatment was instituted,	543
Number of children provided with suitable glasses,	322

TEETH.—The teeth of the pupils are also a matter in which considerably more interest is now being taken than formerly. This is largely due to the prominence given to the subject by medical men, dentists, and the public press. For years the public nodded over this matter, and the ardour of enthusiastic reformers was chilled by the frigid indifference of the community. But now there are signs that parents are awakening, albeit somewhat slowly, to the fact that the teeth of their children are really of some importance, and have a function to fulfil. Still, the great majority of parents look far too lightly upon the state of their children's teeth, and, when a child complains of toothache, the treatment is either the application of a piece of hot flannel to the jaw, or the desperate remedy of having the offending tooth extracted. Certainly the cost of saving partially decayed teeth by proper dental treatment is often more than the majority of our working classes can afford, but the initial expenditure of a few pence for a toothbrush, and the exercising of a little care, would obviate, to a very large extent, the necessity for subsequent dental treatment. Children should be taught to wash their mouths and brush their teeth with the same regularity with which they wash their faces.

The number of children who had their teeth attended to as a result of notices sent to their parents is shown in the following table:—

Number of cases of defective temporary teeth notified,	250
Number of cases where treatment was instituted, ...	68
Number of cases of defective permanent teeth notified,	271
Number of cases where treatment was instituted, ...	98

CONDITIONS OF NOSE AND THROAT.—With reference to conditions of the nose and throat, by far the commonest affection found was enlarged tonsils. This is a condition which is also often lightly thought of, the more so because it is so common and because in many cases no bad effects are noticeable. However, when parents become aware of the serious results which may follow if inflamed or enormously enlarged tonsils are allowed to remain without any treatment, perhaps they will pay more attention to what undoubtedly are a constant menace to the child's health and education.

As a result of the notices sent to parents regarding the presence of enlarged or inflamed tonsils in their children, a certain number—rather more than one-third—of the parents had their children placed under proper medical care. Many of these cases only required simple medical treatment but in others operative measures were needed. As the condition of

chronically-enlarged tonsils is usually accompanied by the presence of adenoids, it was found in many cases where the tonsils had been excised that accompanying adenoids had also been removed. When improvement in the condition of enlarged glands was noted, this was most marked in those cases which arose from carious teeth, and where these teeth had been suitably treated.

The following tables show the number of cases notified, and also the number where remedial measures were undertaken:—

Tonsils.

Number of cases notified,	618
Number of cases remedied by medical treatment, ...	157
Number of cases remedied by surgical treatment, ...	108

Adenoids.

Number of cases notified,	190
Number of cases remedied,	71

Glands.

Number of cases notified,	58
Number of cases remedied,	35

CONTAGIOUS SKIN DISEASES.—Of the many ailments to which school children are liable, there are few in which parents take a greater interest than in diseases of the skin. This is probably due to the natural fear everyone has for ailments which are supposed to be “catching,” as well as to the parental desire to see the child free from what may be a troublesome disease. The fear of incurring the wrath and opprobrium of neighbours who may also have children in the same school is another factor which cannot be overlooked. However that may be, there is certainly an interest shown by parents in diseases of the skin infinitely greater than in the vast majority of other children’s ailments. The commonest of skin conditions is, of course, impetigo, and because of the unsightliness it causes to the face it is usually treated promptly. However, there were a good many cases found in school where either no treatment at all or ineffective treatment was being undertaken. These were notified forthwith, and in some instances the child was excluded from school for a few days. Scabies, or “itch,” when found was promptly dealt with, and the child affected excluded from school at once. The Medical Officer of Health of the area in which the child resided was also notified, and in most cases the house was visited by a sanitary inspector, who gave instructions as to disinfection of clothing, &c. Ringworm, either of the scalp or of the body, was excluded from school to permit of treatment being carried out, and in every case remedial measures were applied. The ordinary ringworm affecting different parts of the body is easily cured, but ringworm of the scalp is a much more refractory disease. Treatment by X-rays has been instituted at the Middle Ward Hospital, Motherwell, and several of the cases met with in schools have been treated there with much benefit.

The following tables show the number of cases of skin disease notified and the number which have been duly treated:—

Impetigo.

Number of cases notified,	164
Number of cases cured,	127

Ringworm.

Number of cases notified,	29
Number of cases cured or under treatment, ...	29

Scabies.

Number of cases notified,	31
Number of cases cured,	31

TUBERCULOSIS.—Tubercular conditions, whether affecting the lungs, bones, or glands, seldom fail to arouse the interest and sympathy of parents. This is as it should be, for not only are the lives of the sufferers themselves often in jeopardy, but the risk of infection to others is a serious one. Especially is this the case where the lungs are affected, and all cases of pulmonary phthisis are rigidly excluded from school. It is often an exceedingly difficult matter to diagnose a very early case of phthisis, and unfortunately this is the very time when most good can be done for the patient. When the symptoms are pronounced the disease may have progressed beyond the limit of cure. In cases where there is an old-standing bronchitis and when the family history is suspicious, it would certainly be advisable to exclude the child from school and let him have the benefit of open-air treatment for a few months. In no case where a child has been excluded for phthisis should readmission to school be permitted unless on production of a certificate from the patient's medical adviser or after thorough examination by the School Medical Officer. Several of the cases excluded from school received open-air treatment in one of the County hospitals, while in other instances the parents promised to have the child sent to the country and placed under suitable treatment. All cases of phthisis pulmonalis are notified to the Medical Officer of Health of the area in which the child resides, in order that he may deal with the proper disinfection, &c., of the house.

In the case of osseous tuberculosis, the disease is often a very protracted one and is frequently widely spread. The chronicity of the disease very often has the effect of causing laxity in treatment to creep in, and in some of the cases found treatment had been stopped altogether. All cases of active tubercular bone disease should be excluded from school till the discharge has ceased and the child's health again restored. When there is an open-air school for such cases they might attend there, but certainly such a child's place is *not* in an ordinary schoolroom.

What has been said regarding osseous tuberculosis applies almost as forcibly to the glandular form. When there is profuse discharge the child should not be permitted to attend school, no matter how carefully

the discharge is kept under control. The open-air school is the place for such pupils, but not an ordinary elementary school. In some of the worst cases exclusion from school was recommended till the discharge had either ceased altogether or had become inoffensive. It is certainly a hardship when a child loses many months of education through being affected with glands which are actively discharging, but the child's health must take precedence of his education. Besides, the sufferer's class-mates must be considered, and it is unfair to place any healthy pupil alongside of one who has an unsightly discharge.

The following table shows the number of cases notified, and the number who have had, or still are undergoing, treatment:—

Pulmonary Tuberculosis (Consumption).

Number of cases notified,	7
Number of cases receiving treatment,	7

Osseous Tuberculosis.

Number of cases notified,	6
Number of cases which received treatment,	4

Glandular Tuberculosis.

Number of cases notified,	15
Number of cases which received treatment,	11

OTHER CONDITIONS.—The following table will give some idea of the improvement which has taken place in the children who suffered from the other conditions stated in Vidimus B, and whose parents were notified of the need for treatment:—

	No. Notified.	No. Improved or Cured.
Clothing and Footgear,	288	149
Nutrition,	116	48
External Eye Disease,	335	219
Squint,	31	8
Ear Disease,	364	178
Wax,	347	145
Hearing,	144	65
Speech,	10	1
Heart and Circulation,	16	5
Lungs,	60	30
Epilepsy,	1	—
Chorea,	2	—
Rickets,	2	—
Deformities,	2	1
Infectious Disease,	18	18
Other Diseases or Defects,	168	128
Dirty Body,	103	53

PART V.

EXAMINATION OF JUNIOR STUDENTS.—Application having been made by one of the School Boards in the County to have the medical examination of their junior students (entrants) undertaken by the School Medical Officers, the Committee on Secondary Education granted permission for this to be done, and agreed that any similar requests from other junior student centres should be acceded to. Two centres availed themselves of the offer, namely, Hamilton and Dalziel. In all, 49 junior students were examined.

PHYSICALLY AND MENTALLY DEFECTIVE CHILDREN.

The Committee on Secondary Education for the County sanctioned the services of their School Medical Officers for the purpose of examining the physically and mentally defective children in any of the School Board areas of the County, should a request for such examination be made by any School Board. As a result, five of the larger Boards made such application this year, and special examinations were made in the following areas:—Bothwell, Cambuslang, Dalziel, Hamilton, and Old Monkland. The School Board census revealed the fact that throughout the County there was a large number of children of school age who, by reason either of physical or of mental defect, or of both, were not attending any school, and were having no proper education at home. To ascertain exactly the degree of defect present in these children, and whether they were capable of being educated at special classes (Education of Defective Children (Scotland) Act, 1906), these School Boards requested a special examination of the defective children in their area.

The following was the course employed for the conduct of the examination. Firstly, the School Board of the area to be examined submitted a list of all the children in their area who were supposed to be suffering from some physical or mental condition which prevented them attending an ordinary school. This list was then gone over by the School Medical Officers in conjunction with the Chief Compulsory Officer of the School Board, and the children were classified according to the district in which they lived. Various examining centres—in every case a school—were then decided upon according to the needs of each district, and arrangements were made to have the presumably defective children in attendance at the nearest centre on a fixed date and at a certain hour. Each child had to be accompanied by a parent or guardian, and, in the case of those children who were unable to walk to the examining centre, a conveyance was provided by the School Board. The time occupied in the examination of each child varied as a rule from twenty minutes to half-an-hour, although in some few cases a longer time was necessary. On the completion of the examination in each area, a summary of results was

drawn up and submitted to the Board. This summary was divided into the following sections:—

- I.—Children considered fit to attend an ordinary elementary school.
- II.—Children considered fit to attend special classes for defectives—
(a) physically defective, (b) mentally defective.
- III.—Children who were unfit for any school attendance—(a) physically defective, (b) mentally defective.
- IV.—Children who were temporarily unfit for school attendance.

A full and detailed report on each child examined is kept at the Medical Inspection Offices for future reference if necessary, but only the summary of the results of the examination is submitted to the School Board, with any recommendations considered necessary, such as the providing of conveyance for children to and from school, the supplying of special chairs or couches in certain cases, the exemption from physical drill or exercises, &c.

As this was the first occasion on which a special examination was made of the physically and mentally defective children of school age in the County, the examinations were conjointly conducted by Drs. Mackinnon and Macintyre in order that uniformity of results might be obtained.

RESULTS OF EXAMINATION OF DEFECTIVES.

Name of Board.	No. Examined	Fit to Attend Ordinary School.	Fit to Attend Special Classes.		Unfit for School Attendance.		Temporarily Unfit for School Attendance.
			Physically Defective.	Mentally Defective.	Physically	Mentally.	
Bothwell, - -	62	21	6	8	16	9	2
Cambuslang, -	74	24	19	13	8	3	7
Dalziel, - -	57	6	21	24	6	—	—
Hamilton, - -	61	17	22	10	8	1	3
Old Monkland, -	140	46	38	22	14	8	12
	394	114	106	77	52	21	24

From the above table it will be seen that altogether 394 children were presented for examination who were supposed to be physically or mentally unfit for education at an ordinary elementary school. Of that number, 114—no fewer than 29 per cent.—were on examination found to have no physical or mental defect such as would preclude them from attending school. A large number (48) of these children were above the age of ten years—an age when they could be of some use in helping in the work of the house, and in some districts it was rather distressing to find with what ease they could obtain a medical certificate of unfitness for school

attendance. Most of these children were perfectly healthy, and in the few cases where some slight ailment was found, that ailment, although considered sufficient to keep the child from school, was not deemed sufficiently serious to prevent the child scrubbing floors, helping at a large washing, or assisting in the carrying of heavy packages at a "fitting." Of the younger pupils, any ailment, when present, was usually of a trifling nature—slight rickets, mild inflammation of the eyelids, stammering, &c.—and certainly not at all sufficient to keep a child from school attendance for an indefinite period as was being done.

CHILDREN FIT TO ATTEND SPECIAL CLASSES.

A.—*Physically Defective.*

Those children who were considered fit to attend special classes for the physically defective numbered 106. By far the commonest condition met with was rickets, which accounted for no fewer than 30 of the total number. Here the disease had left the child so deformed in limbs or body that he would not have been able to take full advantage of the instruction provided at an ordinary school, besides making him conspicuous, and possibly an object of pity or ridicule with his healthy school companions.

Tubercular bone disease was the next commonest defect met with, 21 of the children being afflicted with the condition. In all cases the disease was quiescent or possibly cured, but the deformities left, *e.g.*, hunchback, lameness, twisting of the spine, shortening of limbs, &c., were often sufficient to prevent the child walking any distance, or being able to sit upon the ordinary school benches. In such cases special conveyance would be necessary, and special chairs, desks, or couches supplied.

There were 15 cases of total deafness, mutism, or deaf-mutism. It is not easy to determine what should be done for those children, as their homes are rather widely scattered. Certainly special training is necessary if the children are to develop mentally, and to become useful members of society, but the fixing of a convenient centre for training would be a matter of some difficulty, as there are not sufficient in any one area to call for a special class being formed there. The distribution of those cases is as follows:—Old Monkland, 2; Hamilton, 4; Cambuslang, 5; Dalziel, 4.

Paralysis, either partial or complete, involving the limbs or body of the child, accounted for 9 of the defective cases. Three of the children suffered from hemiplegia, *i.e.*, loss of power of one side of the body. It is, of course, obvious that those children could never take their place meantime amongst healthy school children, for, apart from the loss of power in their limbs, there is often an accompanying loss of control over the excretory organs, a condition which makes it impossible for the child to attend an ordinary school when no special provision is made for such conditions. Conveyance to and from school would also have to be provided, and in many cases special chairs provided.

Seven of the children were Epileptics, the ailment being of varying degrees of severity, but, in no case where the child took severe seizures, or

where the condition was acute and actively progressive was attendance at any school or class recommended. This ailment, no matter how mild the condition may be, is a very distressing one, and if it is progressive, there is a decided tendency towards a mental degeneration also. A few such cases were met with, but were included in the list of mentally defective children. All the epileptic children recommended for the physically defective classes were mentally bright and sharp, and for such children there can be no gainsaying the benefit to be derived from suitable mental training.

Six of the children suffered from valvular heart disease, in two cases this being congenital, while in the others it was the result of St. Vitus' Dance or Rheumatism. The defect was, however, so pronounced in each case as to preclude the child from attending the usual elementary school. The tear and wear of ordinary school life is very considerable, and those children could never have come through the period of ordinary schooling without running serious risk.

Eye conditions of a serious nature were found in six of the cases. In one case* complete blindness was present, and in the others long standing disease of the cornea had resulted in partial blindness.

The other conditions found amongst the physically defective children, and which were considered serious enough to warrant the children being educated at special classes, were Hydrocephalus (Water in the Head), Club Foot, Asthma, Extreme Nervousness, Loss of Limbs, Maldevelopment, and one case of long-standing Chorea (St. Vitus' Dance).

The ages of these physically defective children varied from 5 years up to 13 years, and in very many cases the older children, through long absence from school or extreme irregularity of attendance, were very backward as regards education. It was surprising, however, how sharp and bright some of the most deformed children were, and there can be no doubt that proper education and training will convert them into useful members of the community.

B.—Mentally Defective Children.

There were altogether 77 children classed under the heading of Mentally Defective, and these were considered able to profit by instruction at special classes. A mentally defective child is defined by the Education of Defective Children (Scotland) Act, 1906, Ch. 10, to be "one who, not being imbecile, and not merely dull or backward, is, by reason of mental defect, incapable of receiving proper benefit from the instruction in the ordinary schools."

It is a very difficult undertaking to determine exactly the degree of mental deficiency in a child and to decide what would be the best course along which education should proceed. It would be an easy matter to classify mentally defectives into certain distinctive groups if the lines dividing the groups were bold and well defined, but unfortunately no such definite lines exist. Even the line dividing the normal from the abnormal is thin and indistinct at times, and how much greater is the

* The child suffering from total blindness is now being educated at a special institution.

difficulty when the varying degrees or shades of abnormality have to be determined. Possible error is constantly before the examiner who is dealing with the mental condition of children, and the possibility of a supposed mentally defective child being merely a dull or backward one must be kept constantly in view. Such a child, although having little aptitude for book learning or school work, may be a keen observer in the world of nature, and although stigmatised as a "dunce" at school, may in after life be a very successful business man or intelligent worker. It would, therefore, be grossly unfair to classify such a child as a mentally defective one, and in every case, when it is difficult to say for certain whether a child is merely dull or backward or slightly mentally defective, the child ought to be given the benefit of the doubt, and be watched carefully to see what progress he makes.

In dealing with the mentally defectives, the children were classified into three groups—aments, imbeciles, and idiots. Taking the aments as the group which most closely approximates to the normal, a further sub-division was made into high-grade aments and low-grade aments. It is from the first of these sub-divisions that the best results are to be expected from special instruction, although many of the second sub-division may also make very good progress. The imbeciles and the idiots were similarly subdivided, and it may be confessed that the distinction between a high grade imbecile and a low-grade ament was purely a tentative one. A few of the children in the high-grade imbecile group were recommended for attendance at special classes, and these will be carefully supervised, to ascertain what progress, if any, is being made by them. It is possible that, in course of time, an alteration of diagnoses will be necessary, and the pupils drafted into the ament group (which is capable of receiving instruction), or relegated to the imbecile group proper—a group which does not offer much prospect from an educational standpoint. The idiots are, of course, hopeless as regards any benefit to be derived from special classes such as any School Board would form, and are usually fit only for institution treatment. In one of the schools, viz., Knowetop Public, Motherwell, where special classes for physically and mentally defective children are in operation, 2 of the pupils who had been classified as high-grade imbeciles, and who were given the chance of being educated, had, after a few months' trial, to be withdrawn from the class, as they proved not only incapable of receiving any benefit from the instruction provided, but were exercising a demoralising influence on the other pupils. It is quite possible that others may have to be withdrawn from this class, and, on the other hand, certain of the "dull" children admitted to it.

Dalziel School Board is the only one so far which has inaugurated special classes as the result of the recommendations sent in after the examination of the physically and mentally defective children in their area. There are two large well-lighted rooms set apart on the ground floor of Knowetop Public School, one room for the physically, and the other for the mentally defective children. Each class is under the care of a specially trained female teacher, and, in addition, a nurse is in constant attendance.

The children are conveyed to and from the classes in a special ambulance, and, where necessary, special wicker chairs, desks, &c., are provided for the pupils during the school hours. Several visits were made by the Medical Officers to the classes, and the progress of the pupils noted.

What will be the ultimate result of this special teaching of the mentally defective it is impossible to predict. The vagaries of physical development are many, but those of mental growth are multitudinous. One thing for certain can be stated, that no amount of special education or training will ever convert a congenitally abnormal mind into a normal one, and, if a presumably mentally defective child becomes, in course of training, a normal child, with normal mental faculties, then the credit cannot be claimed by the teacher of having changed the abnormal to the normal, but the explanation will have to be sought for in a faulty diagnosis of the condition at the beginning.

Although the mentally defective child can never hope to take his place in the front rank of citizenship or the world's work, still, a great deal can be accomplished by judicious instruction and sympathetic training, so that the child, instead of being allowed to drift through life aimlessly, or to be a constant burden on the community, can very often be trained to do useful work, and so be self-supporting, or at least, partially so. Many of these children become capable basket makers, carpet or rug makers, shoemakers, tailors, gardeners, laundry workers, domestic servants, &c., and can quite successfully carry out routine work where there is not much initiativeness demanded of them. It is to this end that the training of the mentally defective must be directed, so that their hands may be taught to earn that living which their brain is unable to provide.

Regarding the type of building and the choice of site for a special school for the physically and mentally defective, there can be no doubt that a separate building, quite apart from the ordinary school, is to be desired. It is not good either for the healthy school child or for the defective that they should be under the same roof, for unless the nature of the young healthy child undergoes a sudden and complete change, his physically and mentally weaker companions are constant objects of pity or ridicule. Again, the periods of play or relaxation while in school must, in the case of the defectives, be seriously curtailed owing to the lack of proper space or suitable surroundings unless special provision is made. Add to this the fact that the physical disabilities of the defective make demands for more convenient and more accessible lavatory arrangements than are found in an ordinary school.

The ideal site for a school for defectives is one on the outskirts of the town, remote enough to be freed from the roar and bustle of traffic, but still convenient enough for the speedy conveying of the children to and from their homes. The building should stand in its own grounds and have garden, lawn, and trees. In short, the building and site should be as attractive as possible, and should have reasonable privacy. In the summer months, when the weather conditions permit of it, classes could be taught in the open air, and even if it were raining the windows could be opened

as far as possible, and so to some extent fulfil the objects of an open-air school. Many of the cripple children are the victims of previous tubercular disease, of rickets, and malnutrition, and the value of plenty of fresh air and hygienic class-rooms cannot be over-estimated. The climate of this country does not lend itself to regular open-air schools, but at least in mild weather and during certain of the summer months this type of schooling can be approximated. With trees, gardens, &c., in the precincts, nature knowledge could be taught and also elementary gardening. A building of one storey is the most desirable, and the internal arrangements should be suitable to the requirements of the special classes formed.

CHILDREN EXEMPTED FROM ALL SCHOOL ATTENDANCE.

A.—*Physically Unfit.*

There were 52 children classed as physically unfit to attend any school. These children were, without exception, suffering from active disease at the time of the examination, and in the majority of the cases it was unfortunately impossible to give a favourable prognosis. The chief disease encountered was undoubtedly tubercular disease in one or other of its many forms. Thus, tubercular bone disease, active and often progressive, was met with in 16 cases; phthisis pulmonalis (consumption) in 12 cases; tabes mesenterica (wasting of the bowels) in 3 cases; widespread tubercular skin disease in 1 case; tubercular disease of the eye (corneitis) in one case; and in other 4 instances where there was extreme wasting (marasmus) there was a very strong suspicion of tuberculosis being the cause. Thus it will be seen that tubercular disease was certainly present in no fewer than 33 out of the 52 physically unfit children, and there was grave doubt if it could be excluded in the other 4 cases. Of the other conditions present the following is a summary:—Congenital heart disease (very marked), 2 cases; eye disease, 7 cases; progressive muscular paralysis, 1 case; severe chorea with marked disturbance of the heart, 1 case; nephritis (Bright's disease), 1 case; very severe rickets with marasmus, 1 case; epilepsy, 1 case; and favus (ringworm of the scalp) of several years' standing, 1 case.

It is satisfactory to note that in most of the cases of phthisis pulmonalis steps were taken by the Public Health Authorities of the County to provide sanatorium treatment, and in the case of favus the child (a girl) was treated at the Middle Ward Hospital, Motherwell, by X-rays with much benefit.

B.—*Mentally Unfit.*

The mentally defective children who were considered unfit for attendance even at special classes numbered 21. The degree of their mental derangement was so extreme that they were quite unfit to receive instruction, and were suitable only for institution treatment. All of these children were either imbeciles or idiots, and, in addition to their mental defect, many of

them also suffered from physical disease. The following is a summary of the conditions met with:—Idiocy, 11 cases ; idiocy and cretinism, 2 ; idiocy and paralysis, 1 ; imbecility, 1 ; imbecility and deaf-mutism, 1 ; imbecility and epilepsy, 3 ; imbecility and hydrocephalus (water in the head), 2.

CHILDREN TEMPORARILY UNFIT FOR SCHOOL ATTENDANCE.

There were 24 children who, by reason of temporary physical disablement, were exempted from school attendance for periods ranging from a few weeks to six months. Many of these cases were convalescent from some acute illness such as measles, whooping-cough, &c., while others were recovering from St. Vitus' Dance, rheumatism, hip-joint disease, Pott's disease, bronchitis, anæmia, &c. In one instance a child, who was recovering from glandular tuberculosis, had become totally deaf and was in danger of losing his speech, and was recommended for special training as soon as his general health would permit of his attending school.

