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**FOURTEENTH**

# **ANNUAL REPORT**

OF THE

SCHOOL MEDICAL OFFICER

TO

**The Education Committee**

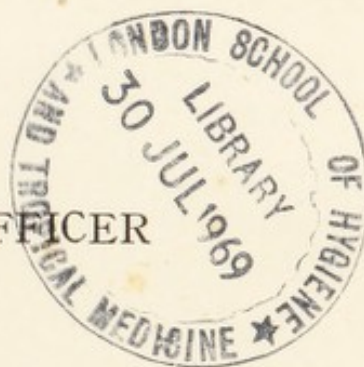
OF THE


**SALOP COUNTY COUNCIL.**

**1921.**

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**JAMES WHEATLEY, M.D., D.P.H.**





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# Medical Staff.

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## School Medical Officer :

JAMES WHEATLEY, M.D., D.P.H.

## Assistant School Medical Officers :

KATHLEEN PRIESTLEY, L.S.A.

JOHN T. MACNAB, M.A., M.B., B.C., D.P.H.

MABEL BLAKE, M.B., Ch.B.

PATTIE R. ELLIOTT, M.B., B.S., (resigned 23rd September, 1921).

M. AILEEN WILLIAMS, M.R.C.S., L.R.C.P. (resigned 31st May, 1921).

FLORENCE ELSIE INGLIS, M.B., Ch.B. (resigned 7th May, 1921).

PERCY G. HORSBURGH, M.R.C.S., L.R.C.P., D.P.H. (commenced duties 17th May).

ANNA M. K. O'HALLORAN, M.B., B.Ch., B.A.O., D.P.H. (commenced duties 1st June).

## School Dentists :

STEPHEN KEENAN, L.D.S.

MICHAEL MILIARESSIS, L.D.S.

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## *To the Chairman and Members of the Salop Education Committee.*

LADIES AND GENTLEMEN,

I beg to present my thirteenth Annual Report as Medical Officer to the Salop Local Education Authority.

The combined scheme of School Medical Inspection and Child Welfare has been further advanced and continues to work well.

The year has been one of consolidation of services started in previous years. The dental scheme has continued to work well, and if properly followed up must have a far-reaching effect on the health of the people. The School Clinics have continued to grow in usefulness, but the original scheme has been curtailed for the present.

Dr. P. R. Elliott resigned on 23rd September, and as the back work due to the War had been overtaken, and the full development of Clinics and Child Welfare Centres was not possible it was decided to work at present with five instead of six medical officers.

The outstanding want is a comprehensive scheme for physical instruction and training.

I am, Ladies and Gentlemen,

Your obedient Servant,

JAMES WHEATLEY,

County Medical Officer of Health,

and School Medical Officer.

County Buildings,  
Shrewsbury,  
March, 1922.

## **AREA COVERED BY THE SALOP LOCAL EDUCATION AUTHORITY, NUMBER OF SCHOOLS, DEPARTMENTS, AND CHILDREN ON REGISTER.**

The area covered by the Salop Education Authority comprises 858,277 acres, and had a population at the 1921 census of 211,946. It is co-terminous with the Administrative County with the exception that the Borough of Shrewsbury is not included. The number of schools at the end of the year was 291, comprising 353 departments. The number of children on the registers necessarily varies from time to time to some extent. On December 31st, 1921, it was 32,067.

### **HYGIENIC CONDITION OF SCHOOLS.**

The reports of the Medical Inspectors show that there is much work waiting to be done to bring the Schools up to a reasonable standard of fitness.

Only the grosser cases so far have been reported for action. There can be no doubt that the children are suffering in many ways, and it is hoped that in the near future a determined effort will be made to put the Schools in a really good condition.

Besides the lighting and ventilation of the school rooms, the provision of satisfactory desks, and of proper cloakroom, lavatory and sanitary accommodation, there is the question of the provision of satisfactory playgrounds, of a supply of pure water and suitable facilities for drinking at any time. A suitable playground is essential for physical instruction and for games. A field should always be obtained where possible and games organised for the children. The school playground is usually the only place where children get the opportunity of playing, particularly in rural districts where houses are scattered and the children only come together when at school.

Few things are more necessary for the true education and physical welfare of these children than provision of satisfactory grounds and the playing of games under proper tuition. This is a part of the education and welfare of the Elementary school child that has been much neglected in the past. (See also chapter on physical training).

The provision of a satisfactory water supply with proper facilities for drinking and the encouragement by the teachers to drink at the proper time is also a matter of great importance to the health of the children. At present children drink all sorts of concoctions brought to school in bottles, and owing to absence of facilities, many of the children undoubtedly do not drink sufficient water or drink at the proper time.

### **ARRANGEMENTS MADE FOR MEDICAL INSPECTION.**

Medical inspection of elementary and secondary schools throughout the whole County with the exception of the Borough of Shrewsbury, has been carried out by six whole-time officers, who are engaged about one-third of their time in maternity and child welfare work. In addition to medical inspection one of the officers now undertakes the work of oculist for those districts where there is difficulty in getting the children to the Shrewsbury Eye, Ear and Throat Hospital.

Routine examinations have been made at the ages of 5, 8 and 12, and in addition the children under five and all children brought forward by the teacher or nurse have been examined.

The children found defective on previous occasions are re-examined at each inspection until declared well.

**SCHOOL NURSES.**—Eighty-six part-time nurses have been employed in connection with 231 school departments; 77 of these nurses are working for Associations connected with the Shropshire Nursing Federation, 3 are nurses employed by other Associations or by private persons, 2 are working on their own account, and 4 are employed by the Lady Forester Trust in the Borough of Wenlock (school nursing by the Trust given up from 31st July).

Two whole-time school nurses deal with the schools in the urban and rural districts of Oswestry, and Oakengates and the surrounding schools. The remainder of the schools in the County are divided amongst the health visitors, so that now all the schools with the exception of three small inaccessible schools on the Clee Hill, are included in the nursing scheme.

Number of children attended by—

District Nurses acting as School Nurses	..	..	18,767
Whole-time School Nurses	..	..	5,365
Health Visitors	..	..	5,851
Nurses working on their own account	..	..	2,182

VOLUNTARY HELPERS.—(see remarks, page 8, report for 1914).

During the war the scheme for utilising Voluntary Helpers became much less efficient, owing greatly to the fact that the helpers were fully employed with other work. Much of the routine work undertaken by the helpers is now done by the school nurses, but there is still work to be done in which helpers can be most useful. What is now wanted is one lady for a school or group of schools to whom the nurse can apply for advice or assistance.

TEACHERS, ATTENDANCE OFFICERS AND SCHOOL ATTENDANCE.—(for details see page 9, report for 1914).

The teachers have continued to afford great help in the work of medical inspection.

In the new scheme of dental inspection and treatment they have given enthusiastic assistance in impressing upon parents the great importance of dental treatment. Their continued help will be required if the scheme is to be a complete success. There are very great differences in the way the dental scheme has been received in the different schools, and there can be no doubt that one most important determining factor has been the head teacher.

In the section dealing with verminous conditions, attention is called to the great influence that the teacher can exert to improve the cleanliness of the school children.

The Attendance Officers are now working in closer co-operation with the medical department. Their opportunities of seeing whether children absent from school on medical grounds are getting medical treatment, are often greater than the opportunities of the school nurse. They are now instructed to report at once any such children who are absent and are apparently not receiving or carrying out medical treatment, so that they can be further investigated if necessary by the medical department. They are also to report on children who are excluded by the Medical Inspector for various conditions and are not carrying out the treatment prescribed.

INSPECTION OF SECONDARY SCHOOLS.—The secondary schools, 15 in number, were visited three times during the year. Entrants, leavers and scholars aged 12 and 15, were examined.

No arrangements have been made for providing treatment or for following up the defects found. The whole question of remedial treatment is left in the hands of the head masters and mistresses.

The tables referring to the inspection of Secondary Schools are given at the end of the report.

## EXTENT AND SCOPE OF THE MEDICAL INSPECTION CARRIED OUT IN THE YEAR 1921.

All the schools were inspected during the year.

42 schools have been visited once only.

193	..	..	twice
119	..	..	three times.

TABLE I.—NUMBER OF CHILDREN INSPECTED.

A.—“ CODE ” GROUPS.

Age.				Entrants.					Total.
				3	4	5	6	Other Ages.	
Boys	..	..	..	..	..	1482	233	109	1824
Girls	..	..	..	..	..	1436	230	145	1811
Total	..	..	..	..	..	2918	463	254	3635

Age.				Intermediate Group.		Leavers.				Grand Total.
				8	Other Ages.	12	13	14	Total.	
Boys	..	..	..	1819	142	1763	115	10	1888	5673
Girls	..	..	..	1804	130	1725	114	5	1844	5589
Totals	..	..	..	3623	272	3488	229	15	3732	11262

B.—GROUPS OTHER THAN “ CODE.”

				Special Cases.	Re-examinations ( <i>i.e.</i> , No. of Children Re-examined).
Boys	..	..	..	526	4183
Girls	..	..	..	564	4009
Totals	..	..	..	1090	8192

Number of individual Children inspected—20544.

TABLE II.—RETURN OF DEFECTS FOUND IN THE COURSE OF MEDICAL INSPECTION IN 1921.

Defect or Disease.					Routine Inspections.		Specials.	
					Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.
(1)					(2)	(3)	(4)	(5)
Skin	Malnutrition	..	..	..	32	526	8	17
	Uncleanliness							
	Head	..	..	..	1667	..	8	..
	Body	..	..	..	266	..	7	..
	Head and Body	..	..	..	287	..	4	..
	Ringworm—							
	Head	..	..	..	35	..	32	1
	Body	..	..	..	14	..	2	..
	Scabies	..	..	..	54	..	19	..
	Impetigo	..	..	..	70	..	35	..
Eye	Other Diseases (non-tubercular)				96	3	11	3
	Blepharitis	..	..	..	46	46	18	7
	Conjunctivitis	..	..	..	9	..	10	..
	Keratitis	..	..	..	2	1	..	..
	Corneal Ulcer	..	..	..	..	1	..	..
	Corneal Opacities	..	..	..	6	3	..	1
	Defective Vision	..	..	..	553	232	99	25
	Defective Vision and Squint	..	..	..	56	30	10	..
	Squint	..	..	..	46	29	11	3
	Other conditions	..	..	..	26	7	5	3
Ear	Defective Hearing	..	..	..	42	4	13	..
	Otitis Media	..	..	..	..	..	3	..
	Other Ear Diseases	..	..	..	73	10	21	4
Nose and Throat	Enlarged Tonsils	..	..	..	349	507	71	24
	Adenoids	..	..	..	77	340	30	24
	Enlarged Tonsils and Adenoids	..	..	..	382	486	43	28
	Other conditions	..	..	..	47	201	11	7
Enlarged Cervical Glands (non-tubercular)					10	340	2	6
Defective Speech					..	36	..	10

TABLE II.—*continued.*

Defect or Disease.				Routine Inspection.		Specials.	
				Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.	Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment.
(1)				(2)	(3)	(4)	(5)
Teeth—Dental Diseases*	..	..		61	..	5	..
Heart and Circulation	{ Heart Disease :						
	{ Organic .. ..	..	..	16	79	7	10
	{ Functional .. ..	..	..	..	41	..	7
	{ Anaemia .. ..	..	..	55	113	11	29
Lungs	{ Bronchitis .. ..	..	..	36	93	8	31
	{ Other Non-tubercular Diseases			11	18	3	3
	{ Pulmonary :						
	{ Definite .. ..	..	..	2	..	..	..
	{ Suspected .. ..	..	..	139	9	23	..
	{ Non-pulmonary :						
Tuberculosis	{ Glands .. ..	..	..	3	6	..	1
	{ Spine .. ..	..	..	1	..	1	..
	{ Hip .. ..	..	..	..	1	1	..
	{ Other bones and joint	..	..	4	1	..	..
	{ Skin .. ..	..	..	..	..	..	..
	{ Other forms .. ..	..	..	4	4	1	..
Nervous System	{ Epilepsy .. ..	..	..	8	4	2	1
	{ Chorea .. ..	..	..	1	1	3	3
	{ Other conditions .. ..	..	..	7	12	4	5
Deformities	{ Rickets .. ..	..	..	9	19	2	1
	{ Spinal Curvature .. ..	..	..	84	37	10	1
	{ Other forms .. ..	..	..	128	85	18	6
Mental Deficiency	.. ..	..	..	7	16	5	6
Other Defects and Diseases	.. ..	..	..	300	538	53	75
Number of <i>Individual Children</i> having defects which required treatment or to be kept under observation .. ..				5145		838	

\* These cases are dealt with systematically under the Dental Scheme and are only referred for treatment by the Medical Officers in very exceptional instances.

**EYE DEFECTS.**—These include defective vision, squint and external eye defects.

There were 775 children with defective eyesight and squint requiring treatment, and 319 with lesser degrees of defect that needed to be kept under observation. Of the children requiring medical treatment, 655 were belonging to the code groups and 120 were special cases. The children aged 5 are not systematically examined for eyesight, so that the code group cases are mostly aged 8 and 12. The percentages amongst these cases needing medical treatment was 7.7. The pre-war percentages at the age of 12 were :—

Year	..	..	1908	1909	1910	1911	1912	1913	1914
Percentage of defects	..	..	15.5	14.7	13.3	11.8	14.5	18.2	19.4
Post-war percentages :—									
Year	..	..	1919	1920	1921				
Percentage of defects	..	..	10.0	10.2	8.5				

The following leaflets based on similar ones issued by the County Councils of London, Durham, Cheshire and Devon have been issued for the instruction of teachers, parents and health visitors. Squint is a condition that develops in the vast majority of cases before school age, and the provision of treatment depends upon the vigilance of the health visitor.

The leaflets will emphasise the instructions given by the Medical Officers to the parents and teachers.

#### *Advice to Parents.*

### COUNTY COUNCIL OF SALOP.

#### **SQUINT.**

If a squint is allowed to go untreated the child will give up using the squinting eye and the sight of this eye will be lost. The child must be made to use the eye in order to save the sight. The danger is much greater in an infant or very young child. The squinting eye of an infant twelve months old may become blind in three months if not attended to.

You are earnestly asked to remember the following facts :—

- (1) Children do not grow out of squint.
- (2) An eye that is turned is an eye that is not being used.
- (3) An eye that is not being used is an eye that will soon become almost blind.
- (4) If proper treatment is obtained as soon as the squint is noticed the condition may be cured.
- (5) No child who squints is too young for treatment.
- (6) Immediately you notice a squint in your child's eye—
  - (a) Write to the School Medical Officer for advice.
  - (b) Cover the straight eye completely with a light bandage or a shield for two hours every day—this causes the child to straighten and use the squinting eye, thus preserving and improving its sight.

JAMES WHEATLEY, M.D.,  
School Medical Officer.

COUNTY BUILDINGS,  
SHREWSBURY.

*Advice to Parents.*

## COUNTY COUNCIL OF SALOP.

**SHORT SIGHT or MYOPIA.**

In short-sighted children there is a weakness of the coats of the eyeball, and these are likely to stretch if the eyes are over-worked. This weakness of the coats is very apt to come on after illness—particularly after measles or influenza. If there is any sign of weakness of the eyes after an illness the eyes should have a long rest from reading, writing and such work. Short sight will get steadily worse unless properly treated and may result in blindness.

To prevent the eyesight becoming worse you are strongly advised to take the following precautions :—

- (1) See that your child is **never** without his or her spectacles until bedtime.
- (2) Ask that your child always may sit in the front row of seats at School, and in a good light.
- (3) Discourage your child from reading and writing out of school hours, especially in a poor light, and never by candle light or firelight. When reading he should sit upright.
- (4) Encourage fresh air and out-of-door exercise.
- (5) Have your child's eyes examined by an Oculist at least once in every two years, oftener if possible.
- (6) Consult the School Doctor before the child leaves school about its future occupation and choose one in which the eyes will not be used on small objects. The work of a clerk or dressmaker is very bad, whereas an outdoor occupation is generally good.

JAMES WHEATLEY, M.D.,  
School Medical Officer.

COUNTY BUILDINGS,  
SHREWSBURY.

*Advice to Teachers.*

## COUNTY COUNCIL OF SALOP.

**VISUAL DEFECTS.**

## (I) CHILDREN RECOMMENDED FOR "EASY TREATMENT."

These children have defective vision of a moderate degree, and with care the school work should not aggravate this defect. If, however, care is not taken the eyes may get steadily worse.

They should sit in the front row of the class. They should sit upright and should not be allowed to stoop over any literary work allowed them. Girls must do no sewing, but may learn knitting provided it be taught by touch and not by sight. The children should only be allowed to read or write in large type for periods not exceeding 20 minutes without a break, and, if it be possible, the writing should be done free-arm fashion on a blackboard or millboard set up on the desk. They should not join in exercises that involve the reading or writing of masses of numerals or geometrical figures. All the work other than oral lessons, physical exercises or games should cease when artificial light is necessary.

So far as school arrangements allow they should attend all the object lessons, demonstrations and oral lessons that are given in the school.

Drill, dancing, games of all kinds are good for them.

Home lessons of any sort should be prohibited.

## (2) CHILDREN RECOMMENDED FOR "ORAL TEACHING ONLY."

These children suffer from some serious defect of vision, such as gradually increasing short sight. As there are no special classes available they are admitted to the Elementary School with a view to their gaining the educational advantage of school discipline and such general knowledge as can be given them in the oral lessons of the classes.

The use of books, pens, paper, pencils and slates of any kind and for any purpose is to be prohibited, and the child should be reminded at intervals by the teacher in a friendly chat that the prohibition is for his or her own benefit and that they must do at home what they are trained to do at school.

If the class arrangements permit they may be allowed to write or draw on the blackboard in large characters free-arm fashion.

If a girl shows aptitude for handwork, she may learn knitting by touch, but not by sight. Similarly, a boy may do the larger kinds of carpentry, but he must not use the rule or draw measured plans.

For the most part these children may drill and dance, but they should be warned against using gymnastic apparatus or dumbbells. They should be cautious in the playground games.

**AURAL DEFECTS.**

## CHILDREN RECOMMENDED TO "SIT IN THE FRONT ROW."

These children suffer from slight deafness, and it is essential that they should be allowed to sit in the front desks in the class.

**GENERAL.**

The Head Teacher should in the course of each year draw the attention of the School Doctor to these children, and give the doctor information as to their educational progress or any difficulties which may have arisen in connection with the cases.

JAMES WHEATLEY, M.D.,  
School Medical Officer.

COUNTY BUILDINGS,  
SHREWSBURY.

*Adapted from London County Council Leaflet.*

**DEFECTS OF NOSE AND THROAT.**—There were 1,010 children with defects of the throat and nose requiring treatment amongst those examined, and 1,627 children suffering from minor conditions and needing to be kept under observation. Of those requiring treatment 420 were suffering from enlarged tonsils, 107 from adenoids and 425 from both enlarged tonsils and adenoids.

Of the 11,262 children of the Code groups examined, 855 or 7.6 per cent. required medical treatment.

The degree of symptoms necessitating operation is a subject on which there is still considerable difference of opinion, and the proper selection of cases for operation is a matter requiring great care and judgment. More careful observations carried on into adult life of the cases operated on and those left without operation are most desirable and necessary. In the meantime probably the safest rule is to confine operations to cases in which there is distinct evidence of obstruction to breathing or of infection of the system.

Where there is any doubt and there are no urgent symptoms, it is probably better to leave over the operation until after a further inspection. Sometimes enlargement due to temporary congestion is mistaken for permanent enlargement.

Dr. Horsburgh remarks on the large number of enlarged tonsils that have subsided after dental treatment.

**TEETH.**—It is a matter for great congratulation that the Ministry of Health have appointed a Committee to investigate the causes of dental decay.

As a result it is hoped that a definite pronouncement will be made and that the subject will receive that attention from Sanitary and Education Authorities that its extreme importance demands. For the last 10 or more years efforts have been made through the schools and by means of the health visitors to teach the prevention of dental caries on physiological lines. Simple rules of prevention have been drawn up and supplied to the schools and to the health visitors. The directions to the health visitor are to leave these at every house where there are young children and explain them. In addition lectures have been given by the medical staff to school teachers, to nurses, to mothers at the Child Welfare Centre and by the County Council health lecturer to the children at the schools.

This teaching is regarded as one of the most important duties of the health visitors. There is reason to think that there has been a considerable improvement in the teeth of the children of the County.

For a description of the measures taken for the prevention of dental caries, and for the rules to be observed, reference must be made to pages 31 and 32 of the Annual Report for 1914.

I am not by any means satisfied that the work done in the prevention of dental caries is at all commensurate with its vast importance. Without some general acknowledgment of the supreme importance of the work it seems almost impossible to get that sustained interest and enthusiasm amongst the workers and that receptivity amongst the public that is essential for any great success.

What is wanted, is a real lead from the Government that this is work of great national importance, and Local Authorities, both Educational and Sanitary, should be encouraged to organise an intensive educational campaign.

If half the work and enthusiasm that has been put into the prevention of tuberculosis or into 'child welfare' had been directed to the prevention of dental caries, the battle would now have been half won, and no one who has studied the subject can doubt that the result on the health of the rising generation would have been very marked.

The scheme for dental inspection and treatment was in full working order during 1921.

The staff consists of two dentists and four dental dressers working under their supervision. One dentist usually works in the eastern and one in the western half of the County.

The dressers are engaged for a probationary period of six months, at the end of which time if suitable they undertake to serve for a further period of three years. Their training is undertaken by the dentists on definite lines laid down, and they work entirely under the direct supervision of the dentists.

Dental Clinics have been provided at Wellington, Oswestry, Whitchurch, Newport, Bridgnorth and Ludlow. The Wellington Clinic is the only one that is fully furnished. It is used as a central office for the dental work in the eastern half of the County. The Oswestry Clinic is partly furnished, and the other clinics have to be temporarily equipped when in use. There is one Ford Motor Car for the use of the dentist, who at the time is dealing with the outlying schools.

The work is so arranged that one dentist is employed at the Clinics or at schools near to a railway station, whilst the other dentist is inspecting and treating at the more out-of-the-way country schools. He reaches these schools by means of the motor car, in which he takes two dental chairs, one or two dental engines, and other apparatus, two dental dressers and himself—quite a full load.

By this arrangement of work and by transferring the car from one dentist to another it seems as if it will be possible to manage with the intensive use of one car.

The methods have been varied considerably from time to time with the experience gained.

The ends that have been steadily kept in view are :—

- (1) That the inspection should be of a *systematic* character.
- (2) That all the schools should be dealt with in a reasonable time, and if possible within twelve months.
- (3) That the mouth of every child treated should be freed from any gross septic conditions, and every decayed permanent tooth that is saveable, should be saved.
- (4) That subject to the foregoing conditions and to the proviso that every filling should be done as well as possible so that it shall be really permanent, the largest number of children possible should be dealt with.

The success or failure of the scheme must depend upon the amount of sepsis removed and the number of permanent teeth saved, and not upon the refinements of dental treatment. At a later period of school dental treatment, when the number of dentists is adequate for the whole population (a distant period), it may be possible to adopt more perfect methods.

In small country schools inspection and treatment are carried out at the same visit, and in those with less than 50 on the register all children over five years of age are dealt with.

In all other schools children aged 6—12 have been treated. The following table shows the schools separated into these two classes :—

Age Group Treated.	No. of Depts.	Number on Register.
5—14	61	2353
6—12	214	23319
Totals	275	25672

Two hundred and seventy-five schools out of 353, or 77.9 per cent. were visited and treatment provided. The children at these Schools were 79.4 per cent. of the total children on the register.

In 1922 there will be the additional ages of 13 and 14. This will probably be about compensated for by the smaller amount of treatment required for those children treated in the previous year. It appears therefore that we shall in the year 1922 be treating all children over six years for whom consent can be obtained at a rate which should allow us to cover the whole County in 15 months; after this period it will probably be possible to cover the whole County in 12 months. This is supposing that the proportion of consents is maintained as at present. Unfortunately there are indications that in many districts the refusals are increasing, in which event the County will be covered in a shorter period.

#### NUMBER OF CHILDREN DEALT WITH.

	AGE GROUPS INSPECTED.										Specials.	Total.
	5	6	7	8	9	10	11	12	13	14		
East of County .. .. . (Mr. Miliaressis)	58	1214	1383	1363	1369	1249	1231	1217	120	4	6	9214
Remainder of County .. .. . (Mr. Keenan)	131	1359	1439	1546	1583	1545	1542	1326	309	34	—	10814
	189	2573	2822	2909	2952	2794	2773	2543	429	38	6	20028
(b) Referred for treatment .. .. .	..	..	..	..	..	..	..	..	..	..	..	13943
(c) Actually treated .. .. .	..	..	..	..	..	..	..	..	..	..	..	8880
(d) Re-treated (result of periodical examination) .. .. .	..	..	..	..	..	..	..	..	..	..	..	2867*

\* This number is included in the total actually treated.

						NO. OF CHILDREN REFERRED FOR TREATMENT.														
						5	6	7	8	9	10	11	12	13	14	Total.				
Age ..																				
East of County .. .. .						32	683	1012	1154	1164	1083	994	925	87	6					7140
(Mr. Miliarassis)																				
Remainder of County .. .. .						28	446	740	1010	1153	1138	1092	933	236	27					6803
(Mr. Keenan)																				
						60	1129	1752	2164	2317	2221	2086	1858	323	33					13943

## NUMBER OF TEMPORARY TEETH DECAYED.

Age ..	SAVEABLE.										UNSAVEABLE.									
	5	6	7	8	9	10	11	12	13		5	6	7	8	9	10	11	12	13	
East of County .. .. .	53	1206	1093	934	705	402	163	112	5		101	2318	3431	3879	3734	2767	1768	1078	62	
Remainder of County	174	2197	2664	2568	2150	1422	877	333	45		41	766	1445	1995	2147	1988	1508	911	136	
	227	3403	3757	3502	2855	1824	1040	445	50		142	3084	4876	5874	5881	4755	3276	1989	198	

## NUMBER OF PERMANENT TEETH DECAYED.

Age ..	SAVEABLE.										UNSAVEABLE.									
	5	6	7	8	9	10	11	12	13		5	6	7	8	9	10	11	12	13	
East of County .. .. .	1	82	348	628	746	919	1074	1175	173		1	19	45	190	276	485	763	870	118	
Remainder of County ..	2	47	157	310	515	680	864	902	234		..	9	15	47	150	319	574	702	199	
	3	129	505	938	1261	1599	1938	2077	407		1	28	60	237	426	804	1337	1572	317	

## PARTICULARS OF TIME GIVEN AND OPERATIONS UNDERTAKEN.

No. of Half-days devoted to Inspection.	No. of Half-days devoted to Treatment.	Total No. of Attendances made by the Children at the Clinic.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total No. of Fillings	No. of Administrations of General Anaesthetics	No. of other Operations.	
			Ex-tracted.	Filled.	Ex-tracted.	Filled.			Per-manent Teeth.	Temp-orary Teeth.
164	696	10263	2973	3332	15637	127	3459	996	719	381

The difference between the number referred for treatment and the number treated was 5,063. The details are given in the following statement:—

	Refusals.	Absent from Treatment.	Left School.	To be treated in 1922.	Treatment deferred	Dental car unavailable.
East of County ..	1506	488	22	910	—	131
Remainder of County	1186	211	12	395	199	—

An analysis has been made in the eastern part of the County showing that 1904 temporary fillings, 327 temporary extractions and 639 permanent fillings in the children treated were not done, and that there was a surplus of 581 permanent extractions over decayed teeth requiring extraction. This excess was due to the extraction of opposing teeth. The deficiency in the number of teeth filled was due to absentees from second appointments and to the scheme of treatment.

#### *Prevalence of Dental Caries.*

The following tables show percentages of dental caries very similar to last year and very much less in amount than in pre-war times. The figures of the dentists and the medical officers are in fairly close agreement.

There is reason to think that personal factors have to some extent lessened the value of the comparison of the pre and post-war figures, but there can be no doubt that there has been a real decrease. A report by one of the dentists—Mr. Miliaressis working in the east of the County is appended.

#### RESULTS OF ROUTINE INSPECTION BY THE MEDICAL INSPECTORS.

DISTRICT.	AGE 5.					AGE 8.					AGE 12.				
	Decayed Teeth.			Children free from Caries.		Decayed Teeth.			Children free from Caries.		Decayed Teeth.			Children free from Caries.	
	No. of Children.	Number.	Average per child.	Number.	Percentage	No. of Children.	Number.	Average per child.	Number.	Percentage	No. of Children.	Number.	Average per child.	Number.	Percentage
Dr. Elliott and Dr. Horsburgh .. ..	514	1156	2.2	210	40	523	1438	2.7	123	23	477	775	1.6	169	35
Dr. Inglis, Dr. Horsburgh, and Dr. O'Halloran	622	1312	2.1	256	41	815	2325	2.8	130	16	766	1499	1.9	182	23
Dr. Priestley .. ..	511	1209	2.3	246	48	573	1971	3.4	121	21	522	901	1.7	203	39
Dr. Blake .. ..	458	1498	3.3	146	32	536	2581	4.8	56	10	567	1388	2.4	129	23
Dr. Williams and Dr. O'Halloran .. ..	367	924	2.5	143	39	565	1544	2.7	164	29	556	716	1.3	257	46
Dr. Macnab .. ..	446	1187	2.6	149	33	613	2785	4.5	58	9	601	1427	2.3	120	20
	2918	7286	2.5	1150	39	3625	12644	3.5	652	18	3489	6706	1.9	1060	30

*Results of Inspection by the Dentists.*

Age	..	..	..	5	6	7	8	9	10	11	12	13	14
Average number of teeth decayed	..	..	..	2.0	2.6	3.3	3.6	3.5	3.2	2.7	2.4	2.3	2.6

## TUBERCULOSIS.

Cases of phthisis amongst school children during the year were discovered in one of two ways: either in the examination of children referred by the teachers and nurses or picked out by the Medical Inspectors; or in the examination of children belonging to phthisis houses, all of whom are systematically examined by the Medical Inspectors.

Children belonging to phthisis houses.	<i>Examination by the Medical Inspector.</i>		Suspected.	Diagnosed.
	Not yet examined.	No. physical signs.		
360	43	295	18	4
22				

The 22 cases together with 190 others picked out by the medical inspectors, teachers, nurses, etc., were referred to the Tuberculosis Officers.

*Total number of School Children examined by or to be examined by the Tuberculosis Officers.*

No. of Children.	Not yet examined.	No physical signs.	Diagnosed as phthisis.	Suspicious of Phthisis.	Left County.	Refused examination.
283	25	184	38	28	6	2

In addition 68 cases referred to the Tuberculosis Officers during 1920 were examined in 1921.

No. of Children.	No physical signs.	Diagnosed as Phthisis.	Suspicious of Phthisis.	Left County or not seen.
68	50	4	5	9

By these means all children known to have come into close contact with tuberculosis and showing any signs of failing health and all school children with any suspicious signs of tuberculosis are brought before the Tuberculosis Officers. The new examination centres have been found most useful for this purpose.

GOITRE.—(ENLARGEMENT OF THE THYROID GLAND).—The following remarks appeared in the report for 1920:—Investigations are showing the vital importance of the ductless glands on the growth and health of the individual. The fatal effect upon the body of destruction of the thyroid gland has long been known and the effect of over-activity in producing disease and disturbance of function is clearly established. What is not so clear is the importance of the smaller enlargements of the thyroid and whether these can in any circumstances be considered physiological.

The opinion is very commonly held, that enlargement of the thyroid gland became much more general particularly in adolescent girls during the war, but there are no reliable figures to prove or disprove this. Unfortunately, figures relating to elementary school children are not very satisfactory, as it is during the adolescent period that goitre is so liable to develop.

It has been conclusively proved that pollution of water is one of the chief causes of goitre, but it has not been proved that this or a similar infection is the only cause.

Careful school records may prove to be of great use in solving some of the problems connected with the enlargement and derangement of the thyroid gland.

It is difficult to suggest any method of radical prevention beyond the improvement of water supplies although it is possible that improvement of food and exercise would lessen this as it would most abnormal conditions. It is possible, however, that some scheme of preventive treatment in schools where goitre is very common might be tried with advantage—a scheme for instance for administering a small daily dose of iodine to all girls showing any enlargement of the thyroid. This would have to be done only with the consent of the parents and after consultation with the medical practitioners. Such a scheme accompanied by carefully recorded observations might yield important information.

Of the cases requiring treatment no less than 72 per cent. were in Dr. Blake's district, *i.e.*, the south-west of the County; last year the percentage was 89. Dr. Blake is making this a matter for special investigation.

**RINGWORM.**—Of the children examined by the Medical Inspectors 35 were found to be suffering from ringworm of the scalp.

In addition, 176 cases have been notified by the teachers. These were not usually based on medical opinion.

Examination of hairs was made by the Medical Inspectors in 44 cases—38 positive, and 6 negative.

Hairs were submitted to Birmingham University, with 61 positive results, and 71 negative results.

When authorised by the School Medical Officer, children suffering from ringworm are now admitted to school, if the parent undertakes to carry out certain stringent precautions. It is also an essential condition of admission that the teacher shall undertake to see that the precautions are carried out.

Facilities have now been provided for the treatment of intractable cases of ringworm by a specialist in Birmingham. The railway fares are paid where the parents are not in a position to afford them.

During the year eight cases were sent to Birmingham to be treated by Dr. Hall Edwards. All the cases reported on are apparently cured, and there have been no accidents of any description.

**PEDICULOSIS.**—The instructions given to the school nurses are to examine the heads of the children each term, that is three times a year, and to follow up the verminous children so as to get them clean before the end of the term. The inspection in the following term is to be begun *de novo*. So far as the returns show, there appear to have been 1,124 primary inspections and 1,328 following up in pections. At the primary inspections 87,225 children were examined and 10,719 were found verminous, or a percentage of 12.3.

These figures compare with 75,146 children examined in 1920, of whom 10,395 or 14.0 per cent. were verminous.

The following figures show the results of the examination of heads by school nurses. It must be remembered that on the second and subsequent inspections only those found verminous or absent at previous inspections are examined.

*First Inspection.*—Number examined 87,225. Verminous 10,719.

*Subsequent Inspections.*

	2nd inspection.	3rd inspection.	4th inspection.	5th inspection.
Verminous .. ..	5169	2602	904	350
Absent .. ..	1241	599	239	70

In interpreting these figures it must be borne in mind that in some schools a third inspection was not made, and in many there was no fourth or fifth inspection, so that the apparent decrease of verminous conditions is greater than the real decrease.

Notwithstanding the amount of work done, the improvement is relatively small, as although the grosser cases of lousiness are comparatively rare, the proportion with some degree of infection is still very large. All these children are a direct menace to clean children.

What is the reason of this comparative failure ?

The prevention of verminous conditions depends upon :—

- (1) The influence and teaching of the teachers and their cordial and active co-operation with the school nurses.
- (2) The efficiency of the routine measures taken in the school by the school nurses.
- (3) The steps taken by the nurses and attendance officers, etc., outside the school to get the children clean and to punish neglectful parents.

These measures should extend so far as possible to other members of the household.

I am inclined to think that these three lines of action are placed here in their order of importance.

The raising of the general tone of the children, and of the parents so far as opportunity allows, in their attitude to verminous conditions is the most important step towards cleanliness. This is the work of the teacher, and no one else can do it. In many schools before school nurses were appointed, the teachers unaided, kept the children almost free from vermin. Since school nurses were appointed, the tendency in many schools has been for the teacher to think that his responsibility in this matter has ceased. The relative positions of the teacher and nurse should be clearly recognised. It is the duty of the school nurse to examine the children regularly, to advise separation of infectious children, or their exclusion, and to indicate the methods of cleansing. It should be the constant endeavour of the teacher to see that his school children are clean and for this purpose he should carry out the advice of the nurse carefully, give her all the help and encouragement possible, call her attention to any suspicious children that have been overlooked, and if the arrangements for examination are not sufficient put his views before the Education Authority. He should, above all, take every opportunity of showing the children how disgusting and degrading it is to harbour lice in their heads.

The regulation with regard to the separation of verminous children should be rigidly insisted upon, not only as a means of protecting clean children but of emphasising the serious view that is taken of this condition.

I am convinced that the attitude and the action of the teacher is the most important matter in the prevention of verminous conditions. It is particularly by education that these conditions will be got rid of from our schools. Without the aid of the nurse, however, the teacher often cannot effect much and it is essential to success that the school nurse should do her part of the work efficiently, both in and out of the school. In many schools the scheme has failed largely owing to insufficient inspection and inadequate following-up measures. The instructions to nurses, should, if properly carried out, either free the school from vermin during the term or at least greatly lessen the amount, but to attain this end it is necessary that the directions with regard to separation, and exclusion of children and prosecution of parents should be rigidly observed. A modification of the instructions seems desirable, giving power to the nurse to proceed at once to exclude the grossly verminous at the beginning of a term who have been warned during the previous term. Arrangements have been made for the Attendance Officer to take proceedings where the school nurse is also a district nurse and objects to appearing in Court. The Attendance Officer can also be utilised more fully in seeing that children excluded from school for verminous conditions are really carrying out instructions.

The combination of general instruction in cleanliness by the teacher, instructions in the best methods of cleansing the heads by the nurse, and prosecution in confirmed cases is undoubtedly the proper procedure. Little good can be expected from the actual cleansing of heads by the nurses, unless this is done as an instruction to parents in the best methods.

The Inspectors for the National Society for Prevention of Cruelty to Children have given us very valuable help in dealing with neglected children, and also in helping us to get treatment for defects where the parents had refused or neglected to do anything.

The thanks of the Education Authority are due to the Society and their Inspectors for this most valuable help.

**MALNUTRITION.**—Notwithstanding the large amount of unemployment during the year the number of children diagnosed as suffering from malnutrition was smaller than in the previous year.

It is quite possible in the agricultural parts of the County where there was comparatively little unemployment that on the whole there was no falling off in the feeding of the children, and the records of the medical inspection of the children certainly appears to point to this. The wages dropped very considerably during the year, but the decrease of wages followed rather than preceded the fall in food prices.

In the coal area and in the industrial parts of the County—particularly Oakengates, there was a very large amount of unemployment, particularly during the Coal Strike, and there must have been much under-feeding. Here the records of medical inspection show a considerable incidence of children suffering from malnutrition. Dr. Priestley's inspections show that cases of malnutrition were 100 per cent. higher in 1921 than in 1920. Information was obtained early in the year from the Medical Inspector of the Oakengates district (Dr. Priestley) and from other sources that there was under-feeding of both school children and children under school age in that area. The Education Authority put the Provision of Meals Acts into force. The feeding of the children commenced towards the end of April, and the number of schools dealt with increased gradually until the end of June, when feeding was being carried out at 32 schools. These schools were entirely in the districts affected by the Coal Strike. The provision of meals came to an end in most of the schools in July, but owing to the continued unemployment in the industrial areas, feeding was recommenced in eight of the schools in the autumn. The meals were administered by Committees composed of Managers, teachers and representatives of the County Council. The number of children fed was 3,889; the total number of meals was 73,000, and the cost approximated 3½d. for each meal. The meals were given on five days in the week, with the exception of one school, where six meals were given. The meals varied very much. It is obvious that with the high food prices it was impossible to give much of the expensive foods, *e.g.*, meat and butter for 3½d. Out of 18 schools fed during the Coal Strike, in seven a stew with meat was given; in seven meat sandwiches; in two meat in some other form; and in two no meat. Milk was given at half the schools.

On the whole the meals appear to have been nutritious and satisfying, and were much appreciated by the children.

On April 27th I sent the following memorandum for the information of Committees administering the meals:—

"In feeding school children there are a few points that should be observed to get the best results.

No money should be spent upon tea, coffee, or similar drinks, but unless the meal is in the form of a dinner with soup or stew, half a pint of milk should be given to each child at each meal.

Probably it is not possible to give any other kind of bread except white bread, otherwise whole meal bread is more valuable. Along with bread, butter or a mixture of margarine and butter is generally better than jam, but it may with advantage be varied, say half bread and butter and half bread and jam. Bread and jam alone is not a satisfactory food.

Oatmeal in the shape of porridge or cakes with treacle should be given at alternate meals, or at one meal in three.

Vegetables such as potatoes or swedes and green stuff are very desirable. A certain amount of green food should, if possible, be given once a day.

Any meat that is given should be in the form of a stew, with a liberal supply of different forms of vegetables. Care should be taken that the whole is not cooked longer than necessary, and the green vegetables may with advantage be put in the stew later, so as not to be cooked so long."

On account of certain criticisms of this memorandum I wrote the following :—

“There are several most important matters relating to food of growing children with restricted diet that are at present not appreciated by the public. My memorandum was directed to making the food supplies to the school children as suitable and complete as possible.

I quite recognised that financial considerations would to a great extent govern the character of the meals supplied, but this will be carried to an unjustifiable extreme if certain essentials are *totally* omitted. I believe that milk can be obtained in the Oakengates district at 6d. a quart. If this is so, milk becomes a food which compares well with other foods considering its special qualities.

A small quantity of butter may be added, say 2 ozs. to the pound of margarine without greatly increasing the price and with great advantage.”

It seems to me that the problem in the feeding of school children is not what meal at a given price is in itself the best for the support of a child, but what meal will best supplement the food the child is already getting, so as to make the daily diet as satisfactory as possible with the means at our disposal.

In times of great financial stringency the food of the poorest is mostly carbohydrates in the form of bread, porridge, potatoes and similar foods. There is a deficiency of fats and a marked deficiency of the *best* proteids, and also a marked deficiency of the fat soluble A vitamine. These deficiencies can best be supplied by means of milk, and I am strongly of opinion that better results would have been obtained by supplying a pint of good fresh milk and a slice of bread and margarine (price 3½d.) than by the varied meals which were provided with much thought and trouble on the part of those superintending the scheme. It would, however be difficult to persuade parents and children, and even School Committees that such a meal is better than the usual type of meal. A raw milk meal moreover would not supply the warmth and satisfaction of a hot meal—a matter of considerable importance to underfed and under-clothed children. No accounts of weights were kept, but in the opinion of the Medical Inspector of the district, the meals resulted in a marked improvement in the children fed. Dr. Priestley says—

“The meals provided were good and substantial. There is no doubt that the health and general physique of the children improved greatly, and that they became more teachable and interested in their lessons, as a result of the provision of these dinners. They have been kept by this means in good physical condition.”

**DULL AND BACKWARD CHILDREN.**—One hundred and seventy-four children were brought forward by the teachers as mentally dull, and were carefully examined by the Medical Inspectors. Twenty-nine were diagnosed as mentally defective.

An analysis of the results of inspection of the 145 dull and backward children show the following causes :—

Insufficiency of education	..	..	..	..	..	42
Physical defects—						
Adenoids and tonsils	..	..	..	..	..	14
Vision	..	..	..	..	..	10
Other conditions	..	..	..	..	..	3
Bad home conditions	..	..	..	..	..	33
Mental dulness (no apparent cause)	..	..	..	..	..	25
Family history of mental deficiency	..	..	..	..	..	10
No diagnosis of cause	..	..	..	..	..	8
						<hr/> 145

The degree of retardation was estimated as follows :—1 year, 3 ; 2 years, 86 ; 3 years, 40 ; 4 years, 7 ; 5 years, 6 ; and 6 years, 1. In two cases the degree of retardation was not stated.

Those retarded over three years will be specially examined for mental defect.

## TREATMENT OF MINOR AILMENTS OF CHILDREN EXAMINED AT SCHOOL.

Disease or Defect.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise.	Total.
Ringworm of Head .. .. .	122	37	73	110
Ringworm of Body .. .. .	11	2	8	10
Scabies .. .. .	41	20	16	36
Impetigo .. .. .	69	26	27	53
Minor Injuries .. .. .	13	4	8	12
Other Skin Disease .. .. .	117	50	52	102
Ear Disease .. .. .	222	84	82	166
Eye Disease (external and other) ..	221	46	125	171
Miscellaneous .. .. .	140	30	81	111

## TREATMENT OF VISUAL DEFECT.

Referred for Refraction.	Number of Children.								
	Submitted to Refraction.								
	Under Local Education Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Other-wise.	Total.	For whom Glasses were Prescribed	For whom Glasses were Provided.	Recommended for Treatment other than by Glasses.	Received other Forms of Treatment	For whom no Treatment was considered necessary.
2129	1066	141	37	1244	1040	543	67	60	100

## TREATMENT OF DEFECTS OF NOSE AND THROAT.

Referred for Treatment.	Number of Children.			Received other Forms of Treatment.
	Received Operative Treatment.			
	Under Local Education Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Total.	
2370	457	116	573	535

## SUMMARY OF TREATMENT OF DEFECTS.

Disease or Defect.	Number of Children.			
	Referred for Treatment	Treated.		
		Under L.E.A.'s Scheme.	Otherwise.	Total.
Minor Ailments .. .. .	956	299	472	771
Visual Defects .. .. .	2129	1066	238	1304
Defects of Nose and Throat .. .. .	2370	457	651	1108
Dental Defects .. .. .	13943	8880	..	8880
Other Defects .. .. .	1538	359	618	977

It is worthy of note that during 1921 the treatment under the Local Education Authority's scheme for defects of nose and throat, eyes, and minor ailments were practically double the number treated in 1920, and the children treated for dental defects increased by 55 per cent.

SUMMARY RELATING TO CHILDREN MEDICALLY INSPECTED AT THE ROUTINE INSPECTIONS DURING THE YEAR 1921.

(1) The total number of children medically inspected at the routine inspections	11262
(2) The number of children in (1) suffering from—	
Malnutrition .. .. .	558
Skin Disease .. .. .	272
Defective Vision (including Squint) .. .. .	946
Eye Disease .. .. .	147
Defective Hearing .. .. .	46
Ear Disease .. .. .	83
Nose and Throat Disease .. .. .	2389
Enlarged Cervical Glands (non-tubercular) .. .. .	350
Defective Speech .. .. .	36
Dental Disease .. .. .	61
Heart Disease—	
Organic .. .. .	95
Functional .. .. .	41
Anaemia .. .. .	168
Lung Disease (non-tubercular) .. .. .	158
Tuberculosis—	
Pulmonary { definite .. .. .	2
{ suspected .. .. .	148
Non-pulmonary .. .. .	24
Disease of the Nervous System .. .. .	56
Deformities .. .. .	362
Other defects and diseases .. .. .	838
(3) The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment) .. .. .	3201
(4) The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, &c.) .. .. .	2520
(5) The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, &c.) .. .. .	1497

## FACILITIES FOR TREATMENT PROVIDED BY THE COUNTY COUNCIL.

*At Hospitals—*

- (1) For Eye, Ear and Throat Defects—letters of recommendation provided for :—  
Eye, Ear and Throat Hospital, Shrewsbury.  
North Staffordshire Infirmary, Stoke-on-Trent.
- (2) For Deformities—  
At Shropshire Orthopaedic Hospital—patients paid for under the tuberculosis scheme, and the scheme for the medical treatment of school children.
- (3) At the Shropshire Orthopaedic Hospital, The Lady Forester Hospital at Broseley and The Bridgnorth and South Shropshire Infirmary—payment made for the operation for tonsils and adenoids.

*At Clinics or Schools—*

- Eye Clinic at Oswestry, attended by a practitioner—1/- paid by parents towards cost in each case.
- Occasional Eye Clinics at Whitchurch, Wellington, Oakengates, Bridgnorth, Ludlow, Newport, Broseley Hospital and Much Wenlock Hospital—attended by an Assistant School Medical Officer ; also Shifnal and Cleobury Mortimer Schools.
- Clinics for minor ailments at Oswestry, Oakengates, Wellington, Whitchurch, Ludlow, Bridgnorth and Newport.
- X-ray treatment of ringworm by a specialist at Birmingham.
- Orthopaedic treatment at 14 After-care Centres provided by the Shropshire Orthopaedic Hospital.

The Orthopaedic Hospital with its After-care scheme has been the greatest possible help in the treatment of deformities of school children. By means of this scheme it has been possible to get prompt examination and treatment of every case. By undertaking the operation for adenoids and tonsils at a time of great stress the hospital got us out of a serious difficulty.

## DETAILS OF TREATMENT RECEIVED AT THE HOSPITALS AND CLINICS.

*Treatment received at Eye, Ear and Throat Hospital for Shropshire and Wales, Shrewsbury, during the year, on Recommendations supplied by the County Council.*

Six hundred and twenty-three letters of recommendation were supplied and 610 of them have been used.

The results of treatment, so far as re-inspection has gone, are very satisfactory.

## EYE DEFECTS.

Hospital or Clinic.	Number of Children seen.	Glasses prescribed.	Glasses obtained.	Other treatment.	No glasses or treatment necessary.
Salop Eye, Ear and Throat Hospital .. .. .	397	325	314	45	..
North Staffordshire Infirmary .. .. .	7	7	7	..	..
Oswestry Eye Centre ..	62	61	57	1	..
Assistant School Medical Officer at—					
Whitchurch Eye Clinic..	81	70	64	2	9
Wellington do. ..	70	55	50	1	14
Oakengates do. ..	50	43	39	2	5
Bridgnorth do. ..	47	34	28	3	10
Ludlow do. ..	68	58	40	2	8
Newport do. ..	35	27	27	2	6
Broseley and Much Wenlock do. ..	57	51	49	..	6
Shifnal School .. ..	28	18	12	2	8
Cleobury Mortimer School .. ..	23	18	18	..	5
	925	767	705	60	71

## THROAT DEFECTS.

Hospital.	Number of Children seen.	Operated on.	Other treatment.
Salop Eye, Ear and Throat Hospital.. ..	169	167	2
North Staffordshire Infirmary .. ..	12	11	1
Broseley Hospital .. ..	23	23	..
Shropshire Orthopaedic Hospital .. ..	149	149	..

## EAR AND NOSE DEFECTS.

Hospital.	Number of Children seen.	Received Treatment.		
		Im- proved.	Not Im- proved.	Not known.
Salop Eye Ear and Throat Hospital.. ..	40	14	..	26

## TREATMENT AT THE SHROPSHIRE ORTHOPAEDIC HOSPITAL.

Disease.	Cases paid for by the County Council.			Cases not paid for by the County Council.		
	Child Welfare, Tuber- culosis and School Cases.			Child Welfare, Tuber- culosis and School Cases.		
	Under 5	5 to 14	Over 14	Under 5	5 to 14.	Over 14
Tuberculosis of Bones and Joints .. ..	10	30	59	1	2	4
Tubercular Peritonitis .. .. .	..	1	..	..	..	1
Poliomyelitis .. .. .	6	27	..	1	3	6
Rickets .. .. .	16	7	..	3	..	..
Knock Knee .. .. .	..	4	..	..	..	2
Scoliosis .. .. .	..	9	..	..	5	1
Kyphosis .. .. .	..	..	..	..	..	1
Round Back and Shoulders.. .. .	..	12	..	..	6	..
Congenital Deformities .. .. .	1	1	..	..	2	1
Flat Foot .. .. .	..	3	..	..	2	4
Club Foot and Claw Foot .. .. .	4	10	..	3	3	7
Osteo-Arthritis .. .. .	..	..	..	..	..	3
Osteomyelitis .. .. .	1	2	..	..	..	..
Hip Joint Disease .. .. .	..	..	..	..	..	..
Disseminated Sclerosis .. .. .	..	..	..	..	..	1
Spastic Paraplegia .. .. .	3	4	..	2	1	..
Other Paralysis .. .. .	3	3	..	..	..	1
Septic Wounds .. .. .	..	..	..	..	..	2
Fractures and Dislocations .. .. .	3	6	..	..	1	7
Mal-united Fracture.. .. .	..	..	..	..	1	1
Other Accidents .. .. .	..	2	..	..	1	7
Other Diseases .. .. .	1	4	..	..	1	4
	48	125	59	10	28	53
	232			91		
	Total 323					

Of the cases sent by the County Council 99 out of 232 or 43 per cent. were tuberculous. The tuberculous cases were on the average a longer time in the hospital than the others so that out of a total average number of beds occupied of 75.3 no less than 44.5 or 59 per cent. were occupied by tuberculous cases. The next cause of deformity in order of importance was poliomyelitis. Thirty-three were put under this heading but probably another dozen or so were really attributable to this disease, making about 19 per cent. of the whole. (More accurate classification according to causation will be made in the next year's report).

Rickets probably accounted for about 30 cases or 13 per cent. The other principal causes were postural or congenital, and the conditions arising from them are either preventable or very easily remedied if treated early.

This analysis shows that a most essential and probably the most important part of an orthopaedic scheme is efficient machinery for preventing cases, or if they cannot be prevented, for detecting them at the earliest possible moment. This is principally the work of the Health Visitor, and when it is done efficiently the majority of cases now treated at school age should be treated and remedied before the child goes to school. The extremely important matter of after-care is mentioned on page 31.

In addition to the 232 cases sent by the County Council, 91 other cases were treated in the hospital during 1921.

*Clinics for Minor Ailments.*—The following table shows the work done at these Clinics:—  
OSWESTRY CLINIC.

Defects or Diseases.	Children seen at Medical Inspection.	No. of other Cases.	No. of attendances.	Result of Treatment.		
				Remedied	Improved	Unaltered
Skin :—						
Ringworm—head .. ..	18	20	166	28	10	..
Ringworm—body .. ..	3	13	30	16	..	..
Scabies .. ..	4	5	21	9	..	..
Impetigo .. ..	8	32	100	38	2	..
Minor Injuries .. ..	4	4	13	8	..	..
Other Skin Diseases .. ..	5	7	44	9	3	..
Ear Disease .. ..	20	22	118	17	25	..
Eye Disease (external and other) .. ..	8	6	33	8	6	1
Verminous conditions .. ..	6	41	109	38	9	..
Throat conditions requiring breathing exercises .. ..	5	6	48	..	11	..
Other conditions .. ..	9	34	71	34	7	2

## OAKENGATES CLINIC.

Defects or Diseases.	Children seen at Medical Inspection.	No. of other Cases.	No. of attend- ances.	Result of Treatment.		
				Remedied	Improved	Unaltered
Skin :—						
Ringworm—head ..	2	10	64	12	..	..
Ringworm—body ..	1	8	23	9	..	..
Scabies .. ..	4	19	95	23	..	..
Impetigo .. ..	15	48	176	63	..	..
Minor Injuries ..	..	..	..	..	..	..
Other Skin Diseases ..	14	63	368	66	8	3
Ear Disease .. ..	6	6	69	10	1	1
Eye Disease (external and other) .. ..	6	17	68	8	13	2
Verminous conditions ..	1	13	32	14	..	..
Other conditions .. ..	20	104	269	97	20	7

## NEWPORT CLINIC.

Skin :—						
Ringworm—head ..	12	7	26	7	..	..
Ringworm—body ..	6	1	31	1	..	..
Scabies .. ..	2	17	152	17	..	..
Impetigo .. ..	6	79	550	79	..	..
Minor Injuries ..	2	34	303	34	..	..
Other Skin Diseases ..	8	10	86	10	..	..
Ear Disease .. ..	3	3	15	..	3	..
Eye Disease (external and other) .. ..	6	2	401	1	1	..
Verminous conditions ..	..	23	46	23	..	..
Other cond tions .. ..	6	13	3	13	..	..

## WELLINGTON CLINIC.

Skin :—						
Ringworm—head ..	5	5	52	9	1	..
Ringworm—body ..	..	3	7	3	..	..
Scabies .. ..	3	5	8	8	..	..
Impetigo .. ..	4	13	50	17	..	..
Minor Injuries ..	..	..	..	..	..	..
Other Skin Diseases ..	2	3	9	5	..	..
Ear Diseases .. ..	9	11	44	6	8	1
Eye Disease (external and other) .. ..	7	17	82	15	7	..
Verminous conditions ..	1	5	14	6	..	..
Other conditions .. ..	38	66	302	55	35	7

## WHITCHURCH CLINIC.

Defects or Diseases.	Children seen at Medical Inspection.	No. of other Cases.	No. of attend- ances.	Result of Treatment.		
				Remedied	Improved	Unaltered
Skin :—						
Ringworm—head ..	I	II	707	5	3	4
Ringworm—body ..	..	4	53	4	..	..
Scabies .. ..	..	6	3I	6	..	..
Impetigo .. ..	..	22	235	22	..	..
Minor Injuries ..	..	IO	98	IO	..	..
Other Skin Diseases ..	..	4	22	I	..	3
Ear Disease .. ..	5	8	196	I	II	I
Eye Disease (external and other) .. ..	5	9	15I	5	3	6
Verminous conditions ..	..	II	26	II	..	..
Other conditions .. ..	3	70	20I	48	3	22

## LUDLOW CLINIC.

Skin :—						
Ringworm—head ..	I	9	187	I	8	I
Ringworm—body ..	..	3	12	3	..	..
Scabies .. ..	..	I	6	I	..	..
Impetigo .. ..	..	12	38	5	7	..
Minor Injuries ..	..	II	28	5	6	..
Other Skin Diseases ..	5	28	56	3	30	..
Ear Disease .. ..	2	7	26	..	9	..
Eye Disease (external and other) .. ..	I	3	32	..	3	I
Verminous conditions ..	2	14	36	..	16	..
Other conditions .. ..	6	64	III	3	67	..

## BRIDGNORTH CLINIC.

Skin :—						
Ringworm—head ..	..	..	..	..	..	..
Ringworm—body ..	..	..	..	..	..	..
Scabies .. ..	..	I	2	I	..	..
Impetigo .. ..	I	6	II	7	..	..
Minor Injuries ..	2	8	IO	IO	..	..
Other Skin Diseases ..	..	4	4	4	..	..
Ear Diseases .. ..	I	I	2	..	..	2
Eye Disease (external and other) .. ..	9	2	2I	..	5	6
Verminous conditions ..	..	..	..	..	..	..
Other conditions .. ..	II	12	32	2	16	5

Statement showing visits of nurses in following up cases to bring about treatment :—

	No. of cases.	No. not visited.	Total visits.
District Nurses .. .. .	3719	425	5902
Two whole-time Nurses ..	1054	107	2552
Health Visitors .. .. .	873	61	1510
Total ..	5646	593	9964

**Action taken to detect and prevent Infectious Diseases, including reference to action under Articles 45 (b), 53 (b) and 57 of the Code of 1912.**

A description of the scheme of notification of infectious disease from schools and of the measures taken to prevent the spread of infectious disease was given on pages 44, 45 and 46 of the report for 1914. This scheme is still in force.

All notifications of cases of measles in the schools are sent on to the Health Visitors, who make these cases the basis for further inquiries, give advice to the parent with regard to isolation and nursing and see that a doctor is called in if necessary. This work is carried out in close co-operation with the Medical Officer of Health of the District, to whom the Nurses report on individual cases.

All notifications of cases of infectious skin conditions are sent to the school nurses for them to give instruction and help to the parents in carrying out the routine treatment prescribed. Reports are required from the nurses each month. The cases are also notified to the Attendance Officer, who reports any of them where the treatment is not being carried out or where the absence from school appears to be unduly prolonged.

All cases of sore throat where there is diphtheria in a school are sent to the School Nurse for swabbing, unless a special investigation is made by the Assistant School Medical Officer and in addition a letter is sent to the parent advising a doctor and pointing out the danger. Wherever a school is closed on account of diphtheria special forms dealing with diphtheria are sent to the Head Teacher to distribute one to each household.

Whenever influenza is notified from a school, leaflets on the lines of that issued by the Ministry of Health are immediately forwarded to the school for distribution.

Under Article 53 (b), 641 certificates of exclusion from school for infectious disease and other conditions have been sent in :—

145	on account of	impetigo.
99	„	ringworm of scalp.
32	„	ringworm of body.
98	„	scabies.
7	„	tuberculous glands.
34	„	suspected phthisis.
65	„	diagnosed phthisis.
5	„	chorea.
23	„	bronchitis.
17	„	anaemia.
116	„	various causes.

School closure has been effected entirely under Article 45 by the School Medical Officer either on information obtained direct from the school, or on the advice of the District Medical Officer of Health. Under this Article, 151 schools were closed for the following reasons :— 61 for measles, 24 for whooping cough, 17 for scarlet fever, 9 for diphtheria, 5 for chicken-pox, 7 for mumps, 10 for influenza, and 18 for colds.

Outbreaks of jaundice at two schools (Welshampton and Astley St. Mary) were inquired into by the Assistant Medical Officers. No definite conclusion was arrived at, although it certainly appeared as if infection was spread in connection with the schools. It is a curious fact that nine years ago there was a similar outbreak of jaundice at Welshampton School.

Considering that epidemic jaundice is comparatively rare, this seems to point to continued infection by a carrier or to some insanitary condition facilitating the spread of this infection when introduced.

Numerous outbreaks of diphtheria were investigated by the Assistant Medical Officers and the School Nurses, particularly in the following districts :—Whitchurch, Pontesbury, Bridgnorth and Ludlow. Most of these outbreaks were due to the presence of carriers in the schools. The way in which carriers spread the disease requires more attention. Pencils and drinking cups are likely media.

REVIEW OF METHODS AND THE ADEQUACY OF SUCH METHODS FOR DEALING WITH BLIND, DEAF, MENTALLY OR PHYSICALLY DEFECTIVE AND EPILEPTIC CHILDREN UNDER THE ACTS OF 1893 AND 1899.

TABLE III.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA ON DECEMBER 31ST, 1921.

			Boys.	Girls.	Total.
BLIND (including partially blind), within the meaning of the Elementary Education (Blind and Deaf Childr. n) Act, 1893.	Attending Public Elementary Schools		1	3	4
	Attending Certified Schools for the Blind .. .. .		4	5	9
	Not at School .. .. .		..	3	3
DEAF AND DUMB. (including partially deaf), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.	Attending Public Elementary Schools		5	2	7
	Attending Certified Schools for the deaf .. .. .		8	9	17
	Not at School .. .. .		2	2	4
Mentally Defective.	Feeble-Minded	Attending Public Elementary Schools	84	44	128
		Attending Certified Schools for men- tally defective children .. ..	5	7	12
		Notified to the Local Control Au- thority by Local Education Au- thority during the year .. ..	..	..	..
		Not at School .. .. .	36	33	69
	Imbeciles	At School .. .. .	1	3	4
		Not at School .. .. .	22	19	41
	Moral Imbeciles	At Special School .. .. .	1	..	1
	Idiots	.. .. .	15	6	21
		.. .. .	..	..	..
		.. .. .	..	..	..
EPILEPTICS.	Attending Public Elementary School		19	16	35
	Attending Certified Schools for Epileptics .. .. .		3	..	3
	In Institutions other than Certified Schools .. .. .		..	..	..
	Not at School .. .. .		2	7	9

TABLE III.—*continued.*

			Boys.	Girls.	Total.
Physically Defective.	Pulmonary Tuberculosis.	Attending Public Elementary Schools	48	45	93
		Attending Certified Schools for physically defective children.. ..	..	..	..
		In Institutions other than Certified Schools .. .. .	5	5	10
		Not at School .. .. .	1	3	4
	Crippling due to Tuberculosis.	Attending Public Elementary Schools	12	5	17
		Attending Certified Schools for physically defective children.. ..	4	7	11
		In Institutions other than Certified Schools .. .. .	..	1	1
		Not at School .. .. .	1	3	4
	Crippling due to causes other than Tuberculosis, <i>i.e.</i> , paralysis, rickets, traumatism.	Attending Public Elementary Schools	185	161	346
		Attending Certified Schools for physically defective children .. ..	6	7	13
		In Institutions other than Certified Schools .. .. .	..	..	..
		Not at School .. .. .	14	15	29
	Other physical defects, <i>e.g.</i> , delicate and other children suitable for admission to open-air Schools ; children suffering from severe heart disease.	Attending Public Elementary Schools	193	189	382
		Attending Open-air Schools .. ..	..	..	..
		Attending Certified Schools for physically defective children, other than Open-air Schools .. .. .	..	..	..
		Not at School .. .. .	9	14	23
Dull or Backward .. .. .		71	55	126	

*Examination of Mentally Defective, Epileptic, Blind and Deaf Children.*

	Certified suitable for Special School on Form 302M, 39, D.E. or 40 B.D.	Uneducable. Notified to Local Control Authority.	To be kept under observation.	Examined and found Dull and Backward only.
Mentally Defective ..	34	5* 4 imbeciles and 1 idiot.	30	19
Epileptic .. ..	3	..	7	1
Blind .. ..	2	..	..	..
Deaf and Dumb ..	..	..	..	..

\* Since the end of the year 23 other children, who had been notified by the School Medical Officer to the Local Education Authority during 1921 as uneducable, have been notified by that Authority to the Local Control Authority, so that the total number notified by the School Medical Officer during the year was 28.

The number of children admitted to special schools during 1921 was—Blind 1, Deaf and Dumb 3, Epileptic 2, Mentally Defective 4, Physically Defective 96.

The total number of children in special schools in 1920 was—Blind 9, Deaf and Dumb 17, Epileptic 3, Mentally Defective 12, Physically Defective 153.

There are two methods for detecting defective children and these when perfected should result in all cases coming to our knowledge at a very early stage.

The one is the routine visits of health visitors which should not only reveal the grosser defects which make a child 'defective' in the sense here used, but the minor defects such as squint, adenoids, discharging ears and rickets, which need early treatment.

The other measure is the census of all children now taken by at the Attendance Officer every year. This should prevent any gross defects being overlooked and might discover cases boarded out or removals into a district that had escaped the attention of the Health Visitor.

As regards the mentally defective children the striking feature is the large number attending the Public Elementary Schools. These to a considerable extent consist of children who have been certified for a special school, but either their parents object to their removal, or there is no available place at Sandlebridge for them. Others were considered too defective for Sandlebridge although to some extent educable. These latter should probably be notified to the Local Control Authority and put under the supervision of the Health Visitors.

#### PHYSICAL TRAINING.

In the introduction to this report I state that "The outstanding want is a comprehensive scheme for physical instruction and training." This is preventive work of a radical type. It not only prevents deformities, but it improves the health and physique of the great mass of school children. Upon sufficient exercise of the proper kind, conducted in the open air with due regard to the amount and kind of clothing, depends not only a good growth of the muscles and frame, but also the development of normal function of the organs, an efficient heart, a freely moveable chest, good abdominal development, a good appetite, prompt riddance of waste produce, and a healthy condition of the mucous membranes and skin.

Exercise under fresh air conditions and proper food are the two primary factors that govern growth and health, and by attention to these two matters we strike at the root of disease. Measures directed to the prevention of particular diseases or to the early treatment of disease, although important, can never yield the same result to the state, consequently it is essential that we should concentrate our energies more particularly on these general measures, which are essential for the full growth and vitality of the great mass of school children. Of these measures, the provision of a good scheme of physical instruction including the encouragement of organised games and the provision of playing fields, is perhaps the most important. Unfortunately physical instruction is in some respects worse in this County than in 1914. For these reasons I strongly urge that the scheme for the appointment of two organisers of physical training be proceeded with at the earliest practicable moment, and that in the meantime the acquisition of playing fields and organisation of games be encouraged and helped in every possible way.

During the year a class of physical instruction was held at the Orthopaedic Hospital for female teachers in Oswestry and neighbourhood. The classes were held on Monday evenings, commencing Feb. 28th and ending July 4th (21 in all). Twenty-one teachers attended and the average attendance was 16. The general instruction was on the lines of the Board of Education syllabus, but opportunity was taken to show the teachers various deformities arising from posture or otherwise that could be to some extent prevented or cured by exercises. The lecturer took the opportunity afterwards of seeing most of the teachers conducting exercises in their schools. On the whole she was favourably impressed with their work, often carried out under very difficult circumstances.

So far no further classes have been arranged, although the success of this experiment would certainly justify further trials.

The followinig paragraphs appeared in my last year's report. Since this was written the association between the School Medical Officers and the Centres has become more intimate, and it has become the custom to refer all cases requiring remedial exercises to the Centres.

The scheme for training the normal child should be linked up with our existing organisation for the treatment of deformities. A complete scheme should be developed on the following lines :

- (1) The first step should be the appointment of organisers of physical instruction, to instruct the school teachers, and to supervise the physical exercises in the schools. The instruction of the teachers would be partly through classes and partly by demonstrations at the schools.
- (2) The children requiring treatment in the form of special exercises, massage, electrical treatment or supports would be picked out by the organisers, by the teachers and by the Medical Inspectors, and referred to the nearest orthopaedic centre. Orthopaedic centres have already been established at Shrewsbury, Ludlow, Craven Arms, Oswestry, Ellesmere, Market Drayton, Wellington, Oakengates, Ironbridge, Wem, Whitchurch, Bridgnorth and Cleobury Mortimer, and other centres are under consideration.

The orthopaedic centres deal also with children under school age, and it is hoped that within a few years most of the cases of deformity will be treated before school age. There will, however, always be a number of deformities principally of a minor character arising during school life that will require treatment.

- (3) The Medical Inspectors should be in close touch with the orthopaedic centres so as to be cognisant of the treatment carried out, to know the possibilities of such treatment, and to keep a special watch over these children during their school life.

## SECONDARY SCHOOLS.

A statement is given below as to the amount of inspection done at the Secondary Schools.

### NUMBER OF CHILDREN INSPECTED.

#### A.—ROUTINE MEDICAL INSPECTIONS.

Age			4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total.
Boys	..	..	1	10	5	7	12	13	25	67	154	52	53	150	22	16	9	..	596
Girls	..	..	..	7	11	12	7	16	48	107	228	78	68	177	38	30	14	4	845
Totals	..	..	1	17	16	19	19	29	73	174	382	130	121	327	60	46	23	4	1441

#### B.—SPECIAL INSPECTIONS.

Boys	..	..	15
Girls	..	..	161
			<u>176</u>

#### C.—TOTAL NUMBER OF INDIVIDUAL CHILDREN INSPECTED—ROUTINE AND SPECIAL CASES.

1617

## RETURN OF DEFECTS (SECONDARY SCHOOLS).

Defect or Disease.				Routine Inspections.		Specials.	
				Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment	Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment
(1)				(2)	(3)	(4)	(5)
Skin	Malnutrition .. ..	..	..	1	1	1	3
	Uncleanliness—						
	Head .. ..	..	..	70	..	2	..
	Body .. ..	..	..	1	..	..	..
	Head and Body ..		..	2	..	2	..
	Ringworm—						
	Head .. ..	..	..	..	..	..	..
	Body .. ..	..	..	..	..	..	..
	Scabies .. ..	..	..	5	..	..	..
	Impetigo .. ..	..	..	1	..	..	..
Nose and Throat	Other Diseases (non-tubercular)			22	..	2	..
	Teeth—Dental Diseases ..		..	27	..	2	..
	Enlarged Tonsils .. ..	..	..	47	76	12	1
	Adenoids .. ..	..	..	8	22	2	..
	Enlarged Tonsils and Adenoids		..	12	34	2	1
	Other conditions .. ..	..	..	10	21	4	8
	Enlarged Cervical Glands (non-tubercular) .. ..	..	..	2	115	..	4
	Goitre .. ..	..	..	12	132	6	3
	External Eye Diseases ..	..	..	13	6	3	..
	Defective Vision .. ..	..	..	140	61	21	4
Ear	Defective Hearing .. ..	..	..	17	7	2	..
	Otitis Media .. ..	..	..	1	..	..	..
	Other Ear Diseases .. ..	..	..	8	2	..	..
	Speech .. ..	..	..	..	7	..	1
	Intelligence (backward) ..	..	..	..	20	..	2
	Heart and Circulation ..	..	..	5	19	1	2
	Anaemia .. ..	..	..	9	25	1	6

## RETURN OF DEFECTS (SECONDARY SCHOOLS)—continued.

Defect or Disease.					Routine Inspections.		Specials.		
					Number referred for treatment.	Number requiring to be kept under observation but not referred for treatment	Number referred for treatment.	Number requiring to be kept under observation, but not referred for treatment	
(1)				(2)	(3)	(4)	(5)		
Tuber- culosis	{	Pulmonary :							
		Definite	..	..	..	..	..	..	
		Suspected	..	..	..	3	10	..	..
		Non-pulmonary :							
		Glands	..	..	..	1	..	..	..
		Spine	..	..	..	1	..	..	..
		Hip	..	..	..	..	..	..	..
		Other Bones and Joints	..	..	..	..	1	1	..
Lungs	{	Skin	..	..	..	..	..	..	
		Other forms	..	..	..	..	1	..	..
		Bronchitis	..	..	..	2	3	1	..
Nervous System	{	Other Non-Tubercular Diseases			..	1	..	..	
		Headache	..	..	..	7	68	1	7
		Signs of Overstrain	..	..	..	1	10	1	..
		Chorea	..	..	..	1	2	..	..
Deform- ities	{	Rheumatism	..	..	..	7	18	..	3
		Digestion	..	..	..	30	32	1	2
		Spinal Curvature	..	..	..	8	80	2	3
		Flat Foot	..	..	..	8	150	..	6
		Other Deformity or Defect	..	..	..	26	88	4	9
Remedial Exercises advised ..					171		9		
Number of <i>Individual Children</i> having defects which require treatment or to be kept under observation ..					845		141		

The County Council have not undertaken any responsibility for the treatment of these defects. A list of the defects is left with the Head Master or the Head Mistress of the school. An inquiry was recently made and the following is a summary of the replies received :—

## Cases treated.

Defective Eyesight.	Tonsils and Adenoids.	Defective Hearing and Ear Disease.	Other Conditions.	Teeth.	Minor Deformities.	Skin Disease.
67	41	8	22	142	180	11

Deformities are dealt with usually by means of remedial exercises at the schools, supervised by the Gymnastic Teacher.

## Appendix.

### *A Report by the School Dentist working the Eastern Half of the County.*

TO THE SCHOOL MEDICAL OFFICER.

DEAR SIR,

I beg to forward you my report for the year ending December 31st, 1921.

The main considerations which were steadily kept in view during the year were: firstly, the treatment of as many children as possible, and secondly, the completion of treatment in every child. I think, as you will notice from the figures given on another page, that these two objects have mainly been achieved.

The method of work is open to criticism in that parents might complain that too much has been done. On the other hand complaints may be as numerous, or even more so, when for various reasons treatment is not completed. I believe that the actual benefit derived by the children will finally win the approval of all parents.

I must point out that it would have been impossible to carry out the amount of work done during the year without the help of the dental dressers, and in spite of their necessarily limited training, they have fully justified their employment. I intend in my notes on the work of the year to deal further with this subject.

The following schools were not treated last year, owing to the car not having been available: Sheriffhales, Little Wenlock, Alveley.

For the same reason the following schools were partially treated: Highley, Claverley, Worfield.

I should like to take this opportunity of thanking you for all you have done during the past year to facilitate my work.

Yours sincerely,

M. MILIARESSIS.

### NOTES ON TREATMENT (BY MR. MILIARESSIS).

#### *Temporary Fillings.*

Owing to the amount of work to be done it was decided to do as few temporary fillings as possible, in order that time could be devoted to more permanent treatment. The main objection advanced to this treatment is that by not attending to saveable temporary teeth these will eventually become unsaveable and have to be extracted, thus leading to derangement of the permanent teeth. A great number of these saveable temporary teeth are found in ages from eight upwards, when even if extracted no derangement of permanent teeth would occur. Further, most of the teeth to be filled in ages from six to eight would probably be found unsaveable on attempting to fill them. I consider, that in order to do good temporary conservative work, one must start at the age of five, or even better at pre-school ages.

#### *Temporary Extractions.*

The main arguments raised against the extractions of temporary teeth, even when septic, are derangement of permanent teeth and loss of masticatory power. The first, should it occur, can easily be remedied, and certainly does not justify the retention of sepsis. The second is difficult to understand. By extracting such teeth masticatory power is increased. One has only to look in the mouth of a child with a tender temporary tooth, to see that that side is absolutely functionless, the teeth being covered with tartar, and the gums in a constant state of inflammation. Such a condition is a potent cause of the spread of caries to the permanent teeth if these have erupted.

### *Permanent Fillings.*

As many permanent fillings as possible were done, and of these roughly two-thirds were done by the dressers. It was impossible to fill the total number found for treatment, on account of absence at second appointments and method of treatment, *i.e.*, extraction of sound or saveable teeth opposed to unsaveable permanent teeth.

No root fillings were done except in some cases of incisor teeth in female children. I think in the light of present knowledge, it is inadvisable to saddle a child with dead molars, when by judicious extractions a permanent and healthy result can be achieved.

### *Permanent Extractions.*

There is a surplus of permanent extractions compared with the number of unsaveable permanent teeth. This is accounted for by the extraction of opposing teeth, and teeth to relieve crowding. The advisability of immediate extraction of all unsaveable teeth is obvious.

In treatment one makes allowance for the developmental factors in the mouth of a child, and aims at every child leaving school with a good functional mouth from which all local causes of caries have been removed.

### *Other Operations.*

These include scalings, cement linings in permanent fillings, silver nitrate treatment, and a few pulp extirpations and root fillings.

### *Dental Dressers.*

On taking up my duties I found that the two dressers allotted to me, although they had passed their probationary period, had no experience of practical work, and also very little theoretical knowledge. Owing to the lack of means at my disposal and the limited time for the syllabus advocated to educate dental dressers, I decided to concentrate mostly on the practical aspect of the work.

The theoretical knowledge which they had to acquire consisted of the minute anatomy of teeth, elementary anatomy of the mouth, bacteriology, sterilization, and causation and prevention of caries. Further they have a certain knowledge of drugs and filling materials in relation to the dental tissues.

The principal consideration was to render them efficient and speedy manipulative workers. From the work done during the year, I think, this policy has justified itself. Their work consists mainly of permanent fillings and minor operations, such as scalings and extractions of simple temporary teeth. Their further duties are the after-care of the child, inspections and clerical work. With reference to the filling work of the dressers, many dental practitioners do not believe that dressers can undertake this work, but I can confidently say that all occlusal cavities, no matter of what extent, can be successfully filled by dressers, when properly trained and under proper supervision. I may say that cavities which require exceptional skill in filling, such as the partial restoration of a tooth, are rarely filled in children.

Supervision consists of examining the child before work is undertaken by the dresser, giving instructions on procedure, inspection of the cavity before insertion of filling, and finally inspection of the filled tooth. I particularly emphasise this point as the conservative work is the most vital work of the dressers.

The means at our disposal do not allow for experience and the acquisition of speed and confidence, which are the two important factors in extractions in children, and which can only be acquired by extracting under general anaesthetics. Personally I do not think that dressers should do more than the more simple temporary extractions.

On starting my work in the County I could not treat more than 22 children per day, but soon, owing to the improvement in the dressers' work, this number was raised to 30, and finally to 35 children per day. It is a pity that one of the dressers should be employed for half her time as a dental assistant, but to obtain such an assistant in her place and have the two dressers working as such the whole time would mean the extension of the scheme, and this seems impracticable at the present juncture. Unfortunately in small schools it is not always possible to use both dressers efficiently.

#### *Permanent Clinics.*

It has been a distinct advantage that in the greater part of my portion of the County the work has been done in permanent clinics. The accommodation is better than in the schools, more work can be done daily, and the children can visit the clinics as often as required. There is still much to be desired in the equipment and the arrangement of the different rooms in our clinics, but I fully realise that at present we must make the best of the means at our disposal. However, the fact remains that convenient and congenial surroundings tend to increase the output of the worker, and this should not be overlooked especially when dealing with work which is in itself enervating and tedious.

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