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# ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

TO

## The Education Committee

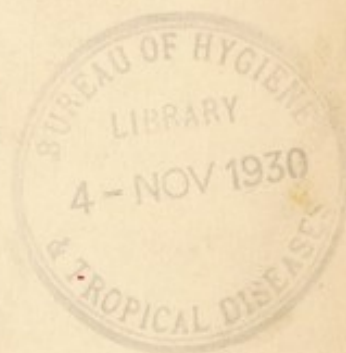
OF THE


## SALOP COUNTY COUNCIL

1929.

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WILLIAM TAYLOR, M.D., D.P.H.





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# Medical Staff.

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## School Medical Officer :

WILLIAM TAYLOR, M.D., D.P.H.

## Assistant School Medical Officers :

KATHLEEN PRIESTLEY, L.S.A.

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

LESLIE WILSON EVANS, M.B., D.P.H. (half-time).

BERNARD A. ASTLEY WESTON, M.B., D.P.H.

WILLIAM H. HARRIS, M.B., D.P.H. (commenced duty 1st August, 1929).

JOSEPH I. E. McCORMACK, M.B., D.P.H. (commenced duty 14th October, 1929).

## School Dentists :

STEPHEN KEENAN, L.D.S.

FRANK H. BIRCH, H.D.D., L.D.S.

GERALD R. CATCHPOLE, L.D.S.

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## Organiser of Physical Training :

MRS. K. W. DAVEY, Diploma of the College of Physical Education.

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

LADIES AND GENTLEMEN,

I have the honour to present the Annual Report for 1929, which is essentially the same in form as the reports of previous years.

The tables relating to heights and weights have, however, been omitted, as, having established the fact that in height and weight children in rural areas have slightly the advantage of children of corresponding ages in urban areas, they appeared to have served their purpose.

No new schemes have been introduced during the year, but the facilities for treatment have been further developed and extended.

I am, Ladies and Gentlemen,

Your obedient Servant,

WILLIAM TAYLOR,

*County Medical Officer and  
School Medical Officer.*

COLLEGE HILL HOUSE,  
SHREWSBURY,

May, 1930.

## 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 of the Borough of Shrewsbury, which is an independent authority for elementary education. Owing to Maesbrook, Boningale and Bridgnorth Blue Coat Schools having been closed on January 31st, March 31st and April 30th, respectively, and Hodnet Girls and Infants Departments having been amalgamated on September 1st, 1929, the number of schools at the end of the year was 277, comprising 335 departments, as opposed to 281 schools for the previous year with 339 departments. The number of children on the Register necessarily varies from time to time to some extent. On December 31st, 1928, it was 29,782, and 29,637 on December 31st, 1929.

### STAFF.

For a number of years previous to 1928, the normal effective strength of Assistant School and Child Welfare Medical Officers had been five ; but owing to a combination of circumstances during that year the number engaged in School Medical Inspection work on 1st January, 1929, had been reduced to three whole-time and one half-time Assistant Medical Officers. On 1st August, 1929, a fourth whole-time Assistant Medical Officer was appointed, to be followed by a fifth on 14th October, 1929. For the greater part of the year, therefore, the School Medical Inspection Staff may be considered to have been below its normal strength, although on 31st December, 1929, the year finished with 5½ Assistant School and Child Welfare Medical Officers in the service of the County Council. Three-tenths of their time is devoted to Child Welfare work and seven-tenths to the work of School Medical Inspection.

In addition to the Assistant Medical Officers above mentioned there were—

- 3 School Dentists.
- 1 Organiser of Physical Training.
- 2 Whole-time School Nurses.
- 10 Health Visitors undertaking school nursing.
- 93 District Nurses undertaking school nursing.
- 3 Dental Helpers.

### CO-ORDINATION.

As the School Medical Officer is the County Medical Officer, and as the Assistant School Medical Officers are also the Assistant Child Welfare Medical Officers, this allows of complete co-ordination of the school medical services with the other health services of the County, namely, Child Welfare, Tuberculosis, Mental Deficiency, Venereal Disease, and the work of the District Medical Officers of Health. In the case of the Oswestry Urban and Rural Districts, in which a County Council Assistant Medical Officer is also the District Medical Officer of Health, a further means for co-operation and co-ordination between the various branches of the health services is provided.

The advantages of the above arrangements become apparent when the work in the various clinics in the County is borne in mind. The same Medical Officers attend both the School Clinics and the Child Welfare Clinics, which are held in the same buildings on the same day. In addition, the Orthopaedic Clinics, although conducted by other than County Council Medical Officers, are also held in the same buildings and at the same time as the Child Welfare Clinics. By such an arrangement those responsible for one branch of the work can readily refer any child to a Medical Officer responsible for another branch of the work, if the defect from which he is suffering

can be more appropriately dealt with by him. The Assistant School Medical Officers, therefore, have every opportunity of keeping in touch with those children under five years of age, and also with those over that age, who are under the necessity of attending one or other of the various clinics.

The co-ordination with the Tuberculosis Scheme is also very close, and arrangements are in force whereby a child, whose physical condition is such as to render the opinion of a Tuberculosis Officer advisable, can readily be referred to him for examination, and for continued supervision and re-examination, if such is considered necessary or desirable.

By these various arrangements the care of the debilitated children under school age is adequately provided for, especially as the health visitors, who attend the Child Welfare and Tuberculosis Clinics, are also responsible for the School Nursing.

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

In a county such as Shropshire, in which about one-half of the population is in Rural Districts, the other half being in Urban Districts, it naturally follows that there are great differences in the hygienic condition of the schools, of which there were 277 at the end of the year.

The size of the schools varies so greatly, and the means of making provision for sanitation differ so much with the locality, that nothing like uniformity is obtainable, and in certain instances there is ample room for improvement. Gradual but steady progress in this respect is, however, being made, and each year sees advances not only in the provision of sanitary arrangements and water supplies, but also in the matter of heating, lighting and ventilation. Two new schools are at present being built, and others are being renovated and re-constructed. In certain of the older schools the design of the class-rooms is so bad that the distance across is greater than that from back to front, the result being that, if the teacher is to get all the children comfortably within his field of vision, it is necessary to crowd all the desks as far as possible into one half of the floor-space. Such an arrangement is extremely bad, as it does not permit of proper spacing of the children and is conducive to the spread of infectious disease, which is, as a rule, conveyed from one child to another through the inhalation of air contaminated very often by infected particles sprayed into the atmosphere as a result of coughing.

The importance, therefore, not only of adequate spacing of the children, but also of ample ventilation will be apparent in order to flush out the vitiated atmosphere and replace it with fresh air. This can only be obtained if in addition to proper ventilation there are also satisfactory means for heating. The problems of heating and ventilation cannot be considered separately, as they are one and the same, and the final solution must always result in a compromise. Ventilation which promotes a feeling of chilliness by lowering the body temperature depresses the vitality, and is unsatisfactory in that it renders the child susceptible to any infection with which it comes in contact. Warmth which is provided at the expense of adequate ventilation is equally harmful, in that it is obtained by shutting out fresh air, which leads to vitiation of the atmosphere of the class room and probable loading of it with infective material. The more fresh air a child obtains the better, but the means of heating the school must be such that the debilitated and weakly children can maintain the normal body temperature; otherwise the results are likely to be harmful.

It is difficult to find fault with a teacher who on a cold winter day keeps all the windows closed in an effort to heat the school, when the only means of heating the class-rooms is by means of a fire placed in one corner, especially, as is frequently the case, if the fire-place is of faulty construction. The ideal is an open-air school, but except on the warmest days in the summer such an ideal can only be obtained if new methods of keeping the children warm are employed. It must be recognised that it is impossible to provide adequate ventilation unless steps are taken to keep the children comfortably warm, especially if they are underclothed or underfed.

The temperature of a room is that of the air inside it, which is warmed by heating the walls and furniture by radiators or other means. In an open air school the air is changing every minute or oftener, except on the stillest days, and other means for promoting the warmth of the children must be employed. It is only by making arrangements whereby the heat will come from a radiating surface, and by which the heat rays will fall directly on the children, that open-air schools can be made satisfactory. This result can be obtained probably only through ceiling heating, in which the heat rays pass direct from the radiating surface through the unheated atmosphere on to the bodies of the children. The children are then kept warm in the same way as when standing in the rays of a bright sun, and have in addition the advantage of the stimulating effect of breathing and coming in contact with a surrounding cool atmosphere. A heating arrangement, which will in this way heat the bodies of the children, will likewise similarly heat the floor of the classroom and will aid in keeping the feet of the children warm. Probably the most satisfactory method of heating would be by combined floor and ceiling heating, the major part of the heat coming from above and a much less part from the floor; but considerations of economy make it almost imperative to choose one or the other of these two methods, and ceiling heating seems likely to give the more satisfactory results.

The question of the extent to which it is desirable to have "Vitaglass" in schools is one which is very debatable. That Vitaglass does transmit under favourable conditions much more of the ultra-violet rays than ordinary glass has been proved; but as only a small part of the skin surface of the children is exposed in schools, as they are only in the class-rooms a short period daily, and as, in addition, the principle of the construction of open-air schools has been adopted in this county, it is questionable if the increased expense entailed by the fitting of "Vitaglass" would be justified by a proportionate improvement in the health of the school children. A supply of milk to school children would promote a much more obvious improvement in their health.

### EDUCATIONAL WORK OF MEDICAL OFFICERS AND OTHERS.

The most effective form of Education in matters pertaining to health, as probably in other things, can be provided by a practical demonstration; and for this reason it is particularly desirable that the hygienic condition of the schools should be of the highest standards obtainable.

In addition to the instruction which the children receive from the teachers in health matters as part of the school curriculum, addresses are given by the Assistant School Medical Officers when they visit the schools, if time and opportunity will allow. This important branch of the work is capable of much further development, and now that the school medical inspection staff has been brought up to full strength it ought to be possible to devote a larger amount of time to it. An address from one who has had an opportunity of acquiring a knowledge of medical facts and physiological principles ought to be very helpful, both to the teachers and to the scholars. This is especially so in the matter of food and nutrition, factors which are so important in maintaining the health of the growing child.

The following are particulars of the addresses given by the Assistant School Medical Officers during the year:—

By Dr. M. Blake :	Infection .. ..	8	Food Values .. ..	I
	Food and Digestion	4	Ventilation and Fresh	
	Sun .. ..	3	Air .. ..	I
	Faulty Standing and		Clothing .. ..	I
	Sitting Positions ..	I	Water Drinking and	
	Prevention of Dental		Mastication of Foods	I
	Decay .. ..	I		—

By Dr. L. W. Evans :	Laws of Health	..	..	..	..	..	..	I
By Dr. W. H. Harris :	Personal Cleanliness	4	Food	..	..	..		I
	Rules of Health	..	3	Health and Beauty	..			I
	Spread of Infection	..	3	Care of the Teeth and				
				Skin	..	..		I
								13
By Dr. J. I. E. McCormack :	Nil.							
By Dr. K. Priestley :	Personal Cleanliness	4	Flat Foot	..	..			I
	Tight Clothing	..	3	Diet for Children	..			I
								9
By Dr. B. A. Weston :	Teeth	..	..	..	7	Using of handkerchief		I
	Wet Feet and Clothing				3	On eating too many		
	Infection	..	..		3	sweets	..	I
	Mid-day Meal	..	..		I	Cleanliness	..	I
	Rules of Health	..			I			
								18

#### ARRANGEMENTS MADE FOR MEDICAL INSPECTION.

For the purpose of inspection the County is divided into areas—one for each Assistant School and Child Welfare Medical Officer. Routine examinations are made at the ages of 5, 8 and 12, and all entrants under five years of age are brought forward for superficial examination, that obvious defects may not go untreated until they reach the age of five. The children found defective on previous occasions are re-examined at each inspection until declared well. In addition, any children about whose health the teacher or nurse has reason to be concerned are also brought forward for examination. Examples of these are children who have had a recent attack of acute infectious disease, and children who for some reason have fallen behind in their school work.

During the year 313 schools were visited once only, 7 twice, and 18 were not inspected ; but amongst these last were Boningale, Maesbrook and Bridgnorth Blue Coat Schools, which were closed early in the year. This represents a total of 327 medical inspections as opposed to 405 during 1928. The apparently unfavourable figures for 1929 are due to the shortage of staff in both years. This shortage meant that the schools could not be got round so frequently, with, as a result, a much larger number of children for examination at each succeeding medical inspection. In addition the development of the work makes a larger demand on the time of the Assistant Medical Officers, and this is especially so in connection with the examination of backward children suffering from, or suspected to be suffering from, mental deficiency.

The following are particulars of the number of children who underwent routine medical examination by the Assistant School Medical Officers, special cases and re-examination cases not being taken into account in giving these figures.

	Aged 5.	Aged 8.	Aged 12.	Total.
Dr. Blake .. .. .	806	933	604	2343
Dr. Priestley ... ..	822	1079	760	2661
Dr. Weston .. .. .	779	949	517	2245
Dr. Evans (half-time) .. ..	559	413	305	1277
Dr. Harris (commenced 1st Aug.)	510	503	313	1326
Dr. McCormack (commenced 14th Oct.)	315	259	135	709

During 1929, therefore, when it was not possible to visit every school, 10,561 children were examined, as opposed to 8,314 in 1928, when every school was inspected at least once.

The school nursing is done by 2 whole-time school nurses, 10 whole-time health visitors, part of whose time is devoted to school nursing, 88 district nurses working for Associations connected with the Shropshire Nursing Federation, 2 nurses employed by unaffiliated associations, and 2 nurses working on their own account.

The apportionment of the children amongst the nurses is as follows :—

District Nurses acting as School Nurses	..	16897 children.
Whole-time School Nurses	.. ..	5316 ..
Health Visitors	.. ..	5907 ..
Nurses working on their own account	.. ..	1980 ..

### FINDINGS OF MEDICAL INSPECTION.

**Pediculosis.**—Although this branch of the school medical service is peculiarly that of the school nurses, it is convenient to include it under the findings of the school medical inspection work.

The instructions given to the school nurses are to examine the heads of the children each term, and to follow up the verminous children by making subsequent inspections in order to get them clean before the end of the term. The factors which secure prevention and, when necessary, the cure of verminous conditions are, stated in order of importance, the influence, instruction, and active and cordial co-operation of the teachers with the school nurses, the efficiency of the routine inspections carried out by the nurses, and the steps taken by the nurses and attendance officers to get the children clean and to punish the neglectful parents. The inspection in each term is begun *de novo*, so that there are three primary inspections in each year. During the year the percentage of children found verminous on primary inspection was 5.6, an increase of 0.2 per cent. on the previous year. At one time or another during the primary and subsequent inspections 13.7 per cent. of children were found verminous, an increase of 0.9 per cent. on the previous year. These figures, therefore, are not quite satisfactory, although it is possible that head inspections have been more thoroughly carried out and, as a consequence, the detection of children with only slightly verminous heads has been more complete. With the exception of 1928, the percentage of verminous heads for 1929 is the lowest which has yet been recorded. The following are the particulars :—

Year.	Percentage verminous.	Year.	Percentage verminous.
1920	14.0	1925	7.5
1921	12.3	1926	6.4
1922	9.9	1927	5.7
1923	9.0	1928	5.4
1924	8.0	1929	5.6

The following are the particulars of the primary and following-up inspections during the years 1928 and 1929 :—

		Primary Inspections.				
		No. of Inspections.	No. of Children.	No. Verminous.	Percentage Verminous.	
1928	..	..	1156	89965	4865	5.4
1929	..	..	1133	85261	4743	5.6

Of those found verminous at first inspections, below are details of the findings at subsequent inspections :—

			Following-up Inspections.			
No. of Inspections.			No. verminous at inspections.			
			2nd	3rd	4th	5th
1928 ..	..	1809	2538	901	246	59
1929 ..	..	1794	2448	841	289	75

Legal proceedings were taken in 14 cases during 1929, and in 20 cases during the previous year, fines ranging from 4/6 to 10/- being imposed.

The time has now arrived when verminous conditions can no longer be tolerated, and when the procedure of separation in school, exclusion and finally prosecution should be strictly carried out in accordance with instructions. Proceedings in connection with the radically verminous children, who are the source of the trouble, should be *commenced at the beginning of the term* instead of waiting until the third inspection. These children should now be well known.

It is the policy to give every assistance and advice before prosecuting, and summonses are only issued as a last resort. There can be no doubt, however, that prosecutions are an essential part of any scheme for getting the children's heads clean, as, without them, the really careless and dirty people will continue to be dirty and verminous and be a constant danger to the clean part of the school. The policy of proceeding to exclusion and prosecution in the persistently verminous cases at the beginning of the term is undoubtedly a sound one.

**Defects of Throat and Nose.**—There were 2,333 children found at medical inspections to be suffering from defects of the throat and nose, of whom 1,079 required treatment, 1,254 being kept under observation. Of those recommended for treatment, some required removal of tonsils only, others of adenoids, and some of both. The following are the particulars :—

	Tonsils only.	Adenoids only.	Tonsils and Adenoids.	Total.
1928 ..	632	97	238	967
1929 ..	576	94	388	1058

Of the 10,561 children belonging to the code group who were examined, 995 or 9.4 per cent. required treatment.

The causation of unhealthy tonsils and adenoids is a matter concerning which there is much room for discussion, but the probability is that the main predisposing cause is defective nutrition, which renders the child liable not only to frequent coughs and colds, but also, and as a result, to a chronically unhealthy and catarrhal condition of the throat and nose. In these circumstances the tonsils frequently become permanently diseased, a condition which is especially likely to develop after an attack of scarlet fever, measles or whooping cough, to all of which the child is rendered particularly susceptible by a previously existing catarrhal condition. One hears much these days of the very great importance of vitamins, but probably the commonest defect in the diet of children, not only of the poorer but also of the more well-to-do classes, is the absence of the necessary mineral constituents of the food. Other, but less important,

contributory factors in the production of unhealthy tonsils and adenoids are lack of those foods which require vigorous mastication, breathing of a vitiated and therefore infected atmosphere, lack of sunlight and exercise, and failure to take the necessary measures to keep the nose free from discharge and, as a consequence, mouth breathing.

**Tuberculosis.**—Cases of phthisis amongst school children are discovered by the Medical Inspectors, either in the course of ordinary routine inspection or by the examination of cases specially referred to them by teachers or school nurses. In addition, all school children who come from homes in which a case of phthisis has been diagnosed are the subject of special examination at each medical inspection. By these means all children known to have been in contact with a case of pulmonary tuberculosis, or observed to show signs of failing health, are brought to the notice of the medical inspector, who refers all suspicious or doubtful cases to the Tuberculosis Officer for further examination and observation. Of 505 children from phthisis homes, 409 were examined by the medical inspectors, and in 7 of these phthisis was definitely suspected. The particulars regarding the total number of school children referred to the Tuberculosis Officers during the year for examination are as follows :—

	No. of Children.	No physical signs.	Phthisis Diagnosed.	Sus-pected.	Diag-nosed.	Other forms of Tuberculosis. Sus-pected.
New cases .. ..	189	155	6	4	19	5
Cases from previous years	62	35	11	2	14	0

**Ringworm.**—Of the children examined by the Medical Inspectors 19 were found to be suffering from ringworm of the scalp. In addition, 135 cases were notified by the teachers, although these were not usually based on medical opinion. Hairs were submitted to Birmingham University with 20 positive and 19 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.

**Eye Defects.**—These include defective vision, squint and external eye defects.

There were 728 children with defective eyesight or squint requiring treatment, and 117 with lesser degrees of defect that needed to be kept under observation. Of the children requiring treatment, 672 belonged to the code groups, and 56 were special cases. As children aged 5 are not systematically examined for defective eyesight, the code group cases are mostly aged 8 and 12. The percentage amongst these children needing medical treatment was 8.7.

The following table shows the percentage of children at the age of 12 requiring treatment for eye defects during the 5 years preceding the war, the 5 years following the war and during the last 5 years :—

Five pre-war years.		Five post-war years.		Last five years.	
Year	Percentage of defects.	Year	Percentage of defects.	Year	Percentage of defects.
1910	13.3	1919	10.0	1925	7.9
1911	11.8	1920	10.2	1926	7.3
1912	14.5	1921	8.5	1927	7.9
1913	18.2	1922	7.6	1928	8.1
1914	19.4	1923	7.5	1929	9.0

Leaflets dealing with squint and myopia are issued for the use of teachers, parents, school nurses and health visitors. One of these is a special leaflet dealing with children the condition of whose eyes is such that they have been recommended for oral teaching only.

**Ear Disease and Hearing.**—Seventy-five routine cases and 14 special cases were referred for treatment either on account of deafness or otorrhoea, or both. The figures for the previous year were, 56 routine cases and 16 special cases.

Experience has shown that a large number of cases of deafness and otorrhoea are due to an attack of an acute infectious disease, such as measles or scarlet fever, or to throat affections especially unhealthy tonsils and adenoids. Indeed, it is probable that the reduction in the number of children referred for treatment on account of deafness and otorrhoea which has taken place during the last two years is one of the results of the surgical treatment of unhealthy tonsils and adenoids.

**Dental Caries.**—The following tables show percentages of dental caries at the various age periods amongst the children examined. These percentages of decayed teeth found by the School Medical Officers correspond fairly closely with those given by the School Dentists.

RESULT OF ROUTINE INSPECTION BY THE MEDICAL AND DENTAL OFFICERS.

	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. Blake .. .. .	455	1681	3.7	125	27	809	2951	3.6	144	18	554	1094	2.0	162	29
Dr. Evans .. .. .	276	767	2.8	90	33	329	845	2.6	84	26	209	268	1.3	90	43
Dr. Priestley .. .. .	542	1803	3.3	135	25	838	2289	2.7	185	22	613	816	1.3	238	39
Dr. Weston .. .. .	424	1103	2.6	140	33	753	2116	2.8	173	23	498	758	1.5	205	41
Dr. Harris .. .. .	291	563	1.9	126	43	414	701	1.7	169	41	291	365	1.3	132	45
Dr. McCormack .. .. .	186	373	2.0	92	49	192	560	2.9	62	32	130	201	1.5	61	47
	2174	6290	2.9	708	33	3335	9462	2.8	817	24	2295	3502	1.5	888	39
Dental Officers .. .. .			2.7		31			2.7		17			1.8		27

The following table gives the results of inspection by the School Dental Officers of children of all ages.

Age	Under 5	5	6	7	8	9	10	11	12	13	14
Average number of teeth decayed ..	2.2	2.7	2.5	2.7	2.7	2.6	2.2	1.9	1.8	1.9	2.1
Percentage of children free from caries ..	40	31	24	20	17	14	17	23	27	26	21

In these tables extracted and filled teeth are counted as decayed teeth. The actual figures, therefore, do not give quite an accurate representation of the actual condition of the mouths of the children inasmuch as a child's mouth may have been put into an absolutely healthy and satisfactory condition by means of extractions and fillings; yet each of these would, for statistical purposes, count as a tooth showing dental caries. Read in the light of the above statement, the following table, giving the average number of decayed teeth per child found by the Medical Inspectors since 1919 at the ages of 5, 8 and 12, shows that there has been a steady, if very gradual, decline in the incidence of dental caries in school children, most marked at the ages of 8 and 12, or in other words, at the ages at which the effect of the school dental scheme has had time to be felt.

Average number of decayed teeth per child found by the Medical Inspectors in the years 1919—1929 :—

Year		Age 5.	Age 8.	Age 12.
1919	..	2.1	3.6	2.1
1920	..	2.16	3.8	2.1
1921	..	2.5	3.5	1.9
1922	..	3.0	3.6	1.7
1923	..	3.4	3.6	1.7
1924	..	3.0	3.3	1.6
1925	..	3.1	3.4	1.6
1926	..	3.0	3.3	1.5
1927	..	2.7	3.4	1.6
1928	..	2.8	3.1	1.5
1929	..	2.9	2.8	1.5

### Crippling Defects.

The numbers of these defects found at the routine medical inspections were :—rickets 41, spinal curvature 83, other forms 523. Probably the most common of school deformities are knock knees, flat feet and spinal curvatures. A very close relationship has been observed between these conditions, often all found in the same child, and the presence of unhealthy tonsils and adenoids.

The figures given above for rickets are distinctly misleading, in that they represent the actual number of children suffering from deformities due to this condition so pronounced as to necessitate treatment. Fortunately the number of such children is comparatively small, but the fact remains that a very much larger number of children, probably over 50 per cent. of those entering school, show at the age of 5 years evidence of slight bony deformities which can only be attributed to faulty calcification of the bones, and therefore to rickets. The importance of this is that, as rickets is entirely a disease of defective nutrition, these children must, during the early years of life, have suffered from a serious lack of those constituents of the diet upon which health and sound body construction depend. A great deal has been said in recent years of the part played by vitamins in the prevention of rickets; and while it is possible that this has been overstressed, it is certain that the importance of mineral constituents in the diet of growing children has been very much under-estimated. Recent work has shown that, in the absence of the proper amount of mineral constituents from the diet, the addition to it of those substances rich in the calcifying vitamin have but little effect. In the presence of rickets it is advisable to trust less to those substances, such as cod liver oil, believed to be rich in intangible vitamins, and to trust more to those foods, such as milk and green vegetables, which are rich in the much more material minerals.

The cases of school children admitted to the Shropshire Orthopaedic Hospital have been analysed in accordance with causation, and show that :—

25	or 29.8	per cent.	were due to	tuberculosis.
9	„ 10.7	„	„	poliomyelitis.
3	„ 3.6	„	„	rickets.
4	„ 4.8	„	„	congenital deformities.
6	„ 7.1	„	„	other deformities—postural or of doubtful causation.
15	„ 17.8	„	„	contractures.
4	„ 4.8	„	„	osteomyelitis.
5	„ 5.9	„	„	Arthritis.
13	„ 15.5	„	„	other accidents and diseases.

This classification of cases in accordance with causation is extremely instructive, as most of the conditions here mentioned are comparatively easily cured if got under treatment at the very beginning of the disease. This particularly applies to poliomyelitis, rickets and congenital deformities ; and to a considerable extent it applies also to cases of tuberculosis. Many of the tuberculous cases come under notice after considerable damage has been done, the cause of the trouble not having been recognised in the early stages. The paralytic conditions arising from childbirth are possibly also largely preventable, and systematic inquiry into these cases would well repay the trouble.

**Goitre.**—It seems to have been established that the main factor in the production of simple goitre is a deficiency of iodine in the diet, as there is much evidence to show that in districts where goitre is prevalent it can be prevented by the addition of minute quantities of iodine to the food or drinking water. It is at times when there are special demands for thyroid secretion, such as pregnancy, lactation and adolescence, that the condition is likely to develop ; and it is probably for this reason that in a district deficient in iodine only a certain proportion of the population suffer from goitre. In Shropshire, as the following figures show, simple goitre is not common amongst school children, but casual observation shows that it is not uncommon in the female adult population of the County. In school children it is more common in girls than in boys, especially in the later years of school life.

		Boys.			Girls.			Total.
		Entrants.	Inter.	Leavers.	Entrants.	Inter.	Leavers.	
No. of children	..	1968	2186	1350	1823	1950	1284	10561
Cases of goitre	..	2	7	11	0	11	35	66

**Dull and Backward Children.**—At the time of the medical inspection the teachers bring to the notice of the medical inspector all children who show signs of mental retardation. In all cases in which the retardation amounts to two years or more a special " Dull and Backward " Card is made out, and the child is seen at each subsequent medical inspection as long as definite retardation continues. If a child is retarded as much as three years or more, he is specially examined as a possible case of mental deficiency at the next visit of the medical inspector to the school.

During the year there were 475 new cases of retardation amongst the school children, the degree of retardation varying from one to five years. The following analysis of the causes of retardation is of interest in that it shows the relative importance of the various factors commonly found to account for backwardness in school children. Little can be done when the backwardness is due to mental deficiency, suspected mental deficiency and probably also innate dullness ; but out of 475 backward children, in 74 the retardation was found to be due to definitely remediable causes, such as insufficiency of education and physical defects.

Mentally defective .. .. .	13
Insufficiency of education .. .. .	35
Physical Defects (Tonsils and Adenoids, Vision, etc.) .. .. .	19
Innate Dullness .. .. .	357
Bad home conditions .. .. .	18
Suspected mental deficiency .. .. .	18
No diagnosis of cause .. .. .	15
	<hr/>
	475
	<hr/>

Perhaps the matter of most practical importance shown by these figures is the number (35) who were dull and backward apparently from insufficiency of education. The backwardness was attributed principally to late commencement of school life, and to some extent to irregular attendance afterwards. Special attention is being paid to those in whom the dull and backward condition was attributed to physical defects with the object of getting these defects remedied.

The degree of retardation was estimated as follows :—1 year, 20 ; 1½ years 51 ; 2 years, 219 ; 2½ years, 68 ; 3 years, 79 ; 3½ years, 12 ; 4 years, 3 ; 4½ years, 1 ; 5 years, 1. In eight cases the degree was not stated, and thirteen children were diagnosed as mentally defective. Those retarded over three years come up automatically for special examination for mental deficiency, unless the retardation is clearly attributable to some other known cause.

In addition, 335 children diagnosed as dull and backward in previous years were re-examined, the findings in connection with whom were as follows :—

Mentally defective .. .. .	21
Doubtful cases of mental deficiency .. .. .	9
Backward, but improving .. .. .	199
Backward, but not improving .. .. .	102
No opinion expressed .. .. .	4

The examination of these backward children takes up a very considerable amount of the time of the Assistant School Medical Officers.

### INFECTIOUS DISEASES.

All cases of infectious disease amongst the school children are immediately notified by the head teachers to the School Medical Officer and to the District Medical Officer of Health. The Sanitary Authorities also notify the head teachers on the outbreak of notifiable infectious disease in their areas, and inform them of the dates of disinfection of the houses. When there is reason to believe or suspect that an infectious disease is being spread through the agency of children attending school, an investigation is carried out in the school by one of the Assistant School Medical Officers, in order to determine what action is necessary to prevent the further spread of the disease. This is especially necessary in the case of scarlet fever and diphtheria, diseases which are not uncommonly spread by the presence of undetected carriers amongst the school

children. Eight such investigations were carried out during the year on account of scarlet fever, and two on account of diphtheria. During the year there were an unusually large number of cases of diphtheria, 254 notifications having been received as opposed to 78 during 1928. This necessitated a very large amount of work both by the Medical Officers and School Nurses, as the schools and homes had to be repeatedly visited to take swabs from the throats of possible carriers or sufferers from diphtheria.

All cases of sore throat, when there is diphtheria in a school, are referred 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 leaflets relating to diphtheria are sent to the Head Teacher for distribution to each household.

No attempt has been made to utilise the Schick or Dick Tests to find out the children who are susceptible to diphtheria or scarlet fever and to immunise them. Under present conditions in elementary schools anything like a general application of the test would probably be impossible. Under certain conditions, however, the protection afforded by tests and immunisation should be offered to the parents.

All notifications of cases of infectious skin conditions are sent to the school nurses, who give instructions and help to the parents in carrying out the routine treatment prescribed. Reports are required from the nurses each month in cases of ringworm, and every fortnight in cases of scabies and impetigo. The cases are also notified to the Attendance Officers, who report those in which the treatment is not being carried out or when absence from school appears to be unduly prolonged.

*Notifications.*—The following notifications were sent in during the year by the head teachers :

Measles .. .. .	1078	Impetigo .. .. .	391
Whooping Cough .. .. .	1109	Ringworm .. .. .	135
Mumps .. .. .	341	Scabies .. .. .	30
Chicken-pox .. .. .	907	Pneumonia .. .. .	13
Coughs and Colds .. .. .	4371	Conjunctivitis .. .. .	24
Influenza .. .. .	7525	Typhoid Fever .. .. .	4
Scarlet Fever .. .. .	163	German Measles .. .. .	40
Diphtheria .. .. .	254	Bronchitis .. .. .	3
Sore Throat .. .. .	241	Tonsillitis .. .. .	2
		Other Diseases .. .. .	155

*Certificates of Exclusion.*—Under Article 20 (b), 892 certificates of exclusion from school on account of infectious disease and other conditions were sent in by the Assistant School Medical Officers and Tuberculosis Officers, of which the following are the particulars :—

Impetigo .. .. .	159	Heart Conditions .. .. .	16
Ringworm of Scalp .. .. .	22	Mumps .. .. .	8
Ringworm of Body .. .. .	22	Influenza .. .. .	52
Scabies .. .. .	31	Chorea .. .. .	17
Tuberculous Glands .. .. .	19	Rheumatism .. .. .	22
Suspected Phthisis .. .. .	27	Tonsillitis .. .. .	34
Diagnosed Phthisis .. .. .	7	Coughs and Colds .. .. .	50
Otorrhoea .. .. .	11	Sore Throat .. .. .	17
Bronchitis .. .. .	50	Whooping Cough .. .. .	28
Anaemia .. .. .	13	Scarlet Fever .. .. .	5
Debility .. .. .	52	Chicken-pox .. .. .	8
		Various conditions .. .. .	222

*Closure of Schools.*—During the year 131 schools were closed by the Education Authority to prevent the spread of infectious diseases. One of these schools was in the first instance closed by the Local Sanitary Authority, the closure being confirmed by the Education Authority. It is difficult to get the teachers to realise that, from the public health point of view, there is no justification for closing a school unless the spread of infection is thereby going to be prevented ; and that the School Medical Officer has no authority to advise closure on account of poor attendance, notwithstanding the fact that the number of children present is sometimes so low that there seems little justification for keeping the school open. Below are given particulars of the closures of schools on account of outbreaks of infectious disease.

Measles .. .. .	9
Scarlet Fever .. .. .	5
Diphtheria .. .. .	9
Whooping Cough .. .. .	2
Influenza .. .. .	106

In eight instances attempts were made to prevent outbreaks of measles by closing the schools for about a week, six or seven days after the occurrence of the first case, with the following result :

In 4 instances no further cases occurred. Closure in these cases must therefore be considered to have been without effect.

In 3 instances one or more cases occurred during the interval, and did not attend school till free from infection. As there was no further outbreak, it is justifiable to conclude that closure was effective in checking the spread of the disease.

In one instance cases occurred during the interval, but eventually further outbreaks occurred in school.

It would seem, therefore, that out of 8 schools closed in order to prevent the spread of measles, in only three of these did the result justify this step. It is only in very sparsely populated country districts, where the homes of the children are widely separated, that closure can be expected to have any real preventive effect.

### FOLLOWING-UP.

The whole of the following up, except such assistance as is given from time to time by the Attendance Officers, is done by the School Nurses, who are notified of the dates of the medical inspection and are always present at the time of the visit of the Medical Inspectors to the schools, unless, as occasionally happens, they are detained elsewhere because of some more urgent matter in connection with their work. The following statement shows how cases recommended for treatment are visited and gives particulars of the number of visits paid :—

	No. of cases.	No. not visited.	Total visits.
District Nurses (91) .. .. .	3411	386	6100
Nurses working on their own account (2) ..	251	57	503
Whole-time School Nurses (2) .. .. .	584	34	2535
Whole-time Health Visitors (10) .. .. .	1142	148	1777
Total ..	5388	625	10915

### FACILITIES FOR TREATMENT PROVIDED BY THE COUNTY COUNCIL.

The following arrangements have been made to provide treatment for school children at hospitals and at clinics held in the County :—

#### *At Hospitals :—*

Eye Defects—Eye, Ear and Throat Hospital, Shrewsbury ; Worcester Eye Hospital.

Ear Defects—Eye, Ear and Throat Hospital, Shrewsbury.

Throat Defects—Eye, Ear and Throat Hospital, Shrewsbury ; Kidderminster Infirmary ; The Lady Forester Hospitals at Broseley and Much Wenlock ; Oswestry, Wellington, Whitchurch, Ellesmere, Chirk, and Tenbury Cottage Hospitals.

Orthopaedic Conditions—Shropshire Orthopaedic Hospital.

Pulmonary Tuberculosis—King Edward VII. Memorial Sanatorium, Shirlett ; Prees Heath Sanatorium.

#### *At Clinics :—*

School Clinics for minor ailments are held at Bridgnorth, Dawley, Ludlow, Ironbridge, Market Drayton, Newport, Oakengates, Oswestry, Wellington and Whitchurch. These are attended daily and are visited once a week by the Assistant School Medical Officers, with the exception of the clinic at Ironbridge, which is only held once a week, and the clinic at Newport, which is held daily, but is only visited fortnightly by the medical officer.

Eye Clinics are held from time to time at Bishop's Castle, Bridgnorth, Highley and Whitchurch, and attended by an Assistant School Medical Officer.

An Eye Clinic at Oswestry is held occasionally and attended by a general practitioner.

Eye clinics attended by specialists are held weekly at Ludlow, and occasionally at Market Drayton.

Orthopaedic Clinics are held weekly at Bridgnorth, Dawley, Ironbridge, Ludlow, Market Drayton, Oakengates, Oswestry, Shrewsbury, Wellington and Whitchurch, and fortnightly at Ellesmere and Newport, and attended by the staff of the Shropshire Orthopaedic Hospital.

Tuberculosis Clinics are held at Bridgnorth, Ludlow, Oswestry, Shrewsbury, Wellington and Whitchurch.

X-Ray treatment for ringworm is provided at a clinic in Birmingham by special arrangement with the Birmingham Education Authority.

**Skin Disease.**—Apart from those children treated at the County Council School Clinic, five cases were sent to Birmingham for X-Ray treatment for ringworm.

**Tuberculosis.**—Eight school children suffering from phthisis were admitted to the Shirlett Sanatorium during the year, and two to Prees Heath Sanatorium. For particulars of other forms of tuberculosis dealt with reference should be made to the summary of treatment at the Shropshire Orthopaedic Hospital, page 16.

**Crippling Defects and Orthopaedics.**—Summary of cases treated at the Shropshire Orthopaedic Hospital during 1929, and paid for by the County Council :—

Disease.	Under 5 years of age.	5—16 years of age.	Over 16 years of age.
Tuberculosis of Bones and Joints .. .. .	10	25*†	40
Poliomyelitis .. .. .	5	9	..
Rickets .. .. .	6	1	..
Hallux Valgus .. .. .	..	1	..
Spinal Curvature (not tubercular) .. .. .	..	5	..
Club Foot .. .. .	2	1	..
Congenital Deformities .. .. .	6	3	..
Flat Foot .. .. .	..	2	..
Osteomyelitis .. .. .	..	4	..
Claw Foot .. .. .	..	12	..
Torticollis .. .. .	..	2	..
Contractures .. .. .	..	1	..
Arthritis—(Septic and Rheumatoid) .. .. .	..	5	..
Fractures and Dislocations .. .. .	2	5	..
Spastic Paralysis .. .. .	1	2	..
Other Accidents and Diseases .. .. .	..	6	..
Total for 1929 ..	32	84	40
Total for 1928 ..	29	84	55

\* Includes 4 Shrewsbury School children.

† One case admitted to Hospital as Tubercular, was afterwards re-diagnosed as Strained Hip.

**Eye Defects.**—Thirty children received hospital treatment for external eye defects, and the following table gives details of the treatment of children suffering from defects of vision :—

Hospital or Clinic	Number of Children seen.	Glasses prescribed.	Glasses obtained	No. change of Glasses ordered.	Other treatment.	Visit to Salop Hospital advised.	No. Glasses or treatment necessary.
Salop Eye, Ear and Throat Hospital .. .. .	710	511	509	99	54	..	46
Ludlow Eye Clinic .. .. .	165	133	131	14	7	..	11
Oswestry Eye Clinic .. .. .	91	80	79	10	..	1	..
Market Drayton Eye Clinic .. .. .	17	10	10	1	..	1	5
Assistant School Medical Officer at Whitchurch Eye Clinic .. .. .	30	23	21	5	..	1	1
Bridgnorth do. .. .. .	22	17	17	..	..	..	5
Bishop's Castle do. .. .. .	8	3	3	3	..	..	2
Highley do. .. .. .	12	8	7	4	..	..	..
Totals for 1929 .. .. .	1055	785	777	136	61	3	70
Totals for 1928 .. .. .	1001	789	770	81	48	3	79

**Ear Disease and Hearing.**

Hospital.	Number of Children seen.	Received Treatment.				Awaiting Throat Operation.
		Remedied.	Im- proved.	Not im- proved.	Not known.	
Salop Eye, Ear and Throat Hospital ..	55	15	29	8	..	3
Totals for 1928 ..	49	14	26	9	..	..

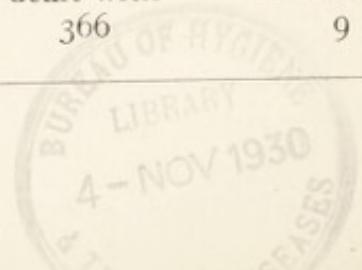
A number of these children required treatment for deafness and otorrhoea as a consequence of unhealthy tonsils and adenoids, treatment for which had previously been refused.

**Diseases of the Throat and Nose.**—Six children suffering from purely nasal conditions received treatment at the Salop Eye, Ear and Throat Hospital. The commonest conditions, however, which necessitated hospital treatment were unhealthy tonsils and adenoids, particulars of which are as follows :—

Hospital.	Number of Children seen.	Operated on.	Other treatment.
Salop Eye, Ear and Throat Hospital ..	188	186	1
Broseley and Wenlock Hospitals ..	65	65	..
Oswestry Cottage Hospital .. ..	41	41	..
Ellesmere Cottage Hospital .. ..	12	12	..
Kidderminster Hospital .. ..	13	13	..
Whitchurch Cottage Hospital .. ..	9	9	..
Wellington Cottage Hospital .. ..	187	187	..
Chirk Cottage Hospital .. ..	7	7	..
Total ..	522	520	1
Totals for 1928 .. ..	524	524	..

Reports received from the Medical Officers on 375 children who had undergone operative treatment for tonsil and adenoid conditions showed, on the whole, a very great improvement in the health of the children, although in too large a number of cases the tonsils and adenoids had not been completely removed. Below is given in tabular form a brief summary of these reports :—

No. of Children.	TONSILS.		No. of Children.	ADENOIDS.	
	Completely removed.	Not completely removed.		Completely dealt with	Not completely dealt with.
375	331	44	375	366	9



## EFFECTS OF OPERATION UPON HEALTH.

					<i>Cured.</i>	<i>Improved.</i>	<i>Not improved.</i>
Mouth breathing	..	..	..	..	292	77	5
Otorrhoea	..	..	..	..	28	3	3
Deafness	..	..	..	..	7	9	1
Nasal Discharge	..	..	..	..	..	39	..
Enlarged Glands	..	..	..	..	73	..	..
Minor Deformities	..	..	..	..	4	..	..
Rheumatism	..	..	..	..	1	..	..
Intelligence	..	..	..	..	..	39	..
Speech..	..	..	..	..	..	2	..
Bronchitis	..	..	..	..	..	7	..
General Health	..	..	..	..	..	370	..
Chest Expansion	..	..	..	..	..	5	8

## School Clinics for Minor Ailments.

Table showing conditions for which treatment was received.

Defect or Illness.			Children referred at S.M.I.	Other Children.	Examinations by M.O.	Attendances.	Results of Treatment.		
							Remedied.	Improved.	Unaltered.
Skin :—									
Ringworm—head	..	..	2	50	69	770	46	6	..
Ringworm—body	..	..	2	50	60	439	49	..	1
Scabies	..	..	2	27	64	174	27	2	..
Impetigo	..	..	2	502	515	3,869	501	2	..
Minor Injuries	..	..	5	538	455	3,657	522	14	3
Other skin diseases	..	..	3	249	235	1,810	239	6	5
Ear disease	..	..	19	142	233	1,078	98	45	12
Eye disease (external and other)	..	..	48	186	294	811	133	82	14
Verminous conditions	..	..	..	60	2	136	57	3	12
Other conditions	..	..	128	1,313	1,904	4,267	1,120	197	73
Total	..	..	211	3,117	3,831	17,011	2,792	357	120

Table showing attendances at each Clinic.

Clinic.	Children referred at S.M.I.	Other Children.	Examinations by M.O.	Attendances.	Results of Treatment.		
					Remedied.	Improved.	Unaltered.
Bridgnorth .. .. .	6	203	277	2,075	207	2	..
Dawley .. .. .	24	381	502	1,615	367	13	25
Ludlow .. .. .	14	404	396	1,789	377	41	..
Ironbridge .. .. .	35	170	251	337	148	39	18
Market Drayton .. .. .	21	275	411	2,437	234	37	25
Newport .. .. .	1	131	43	1,341	118	7	5
Oakengates .. .. .	37	640	1,087	3,293	500	174	3
Oswestry .. .. .	53	455	326	2,169	431	11	16
Wellington .. .. .	17	337	315	715	329	24	1
Whitchurch .. .. .	3	121	223	1,240	80	9	27
Total .. .. .	211	3,117	3,831	17,011	2,791	357	120
Total for all Clinics, 1929	211	3117	3831	17011	2792	357	120
„ „ 1928	301	3006	..	18409	2537	560	174
„ „ 1927	405	2717	..	15158	2505	442	161
„ „ 1926	329	2507	..	13005	2211	444	93
„ „ 1925	244	2017	..	13020	1768	331	82
„ „ 1924	195	1540	..	11662	1402	235	77
„ „ 1923	312	1640	..	10034	1674	206	72
„ „ 1922	347	1126	..	8197	1172	238	62

**Teeth.**—For the last ten 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 visitors are to leave these at every house where there are young children and explain them to the mothers. In addition, lectures have been given by the medical staff to school teachers, to nurses, to mothers at the Child Welfare Centres, 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, but 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 so essential for any great success.

The prevention of decay of teeth is now receiving considerably more attention from important bodies responsible for the public health. The Dental Board have issued a leaflet on prevention and treatment. The principal factors in the cause of dental caries are those which determine the acid fermentation of food in contact with the teeth.

In the scheme of dental treatment the ends which have been kept steadily 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 that 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.

In small country schools inspection and treatment are carried out at the same time ; and in all other schools arrangements are made for treatment either at the school or at a clinic some three weeks after inspection.

Children of all ages in the schools have been dealt with since October, 1923. This is a very important advance.

Not only are all ages dealt with, but the schools are now being visited on an average about once in seven months. This has been possible owing, partly and unfortunately, to the considerable number of refusals, but chiefly to the smaller amount of treatment required as a result of previous treatment.

All the schools except two were inspected and treated during the year, and

175 schools were treated twice during the year.

29 schools were inspected twice, but the second treatment was not given until 1930.

The results of inspection and treatment are given in the tables at the end of the report.

The number of unsaveable permanent teeth is a measure of the imperfection of the dental scheme. A tooth becomes unsaveable when the decay has reached the pulp cavity, or very close to the pulp cavity. It is very satisfactory that, in 42,489 examinations of children, only 3,532 unsaveable permanent teeth were found, and 3,103 of these were due to refusal of treatment at the previous inspection. Only 429 can therefore be legitimately attributed to any shortcomings of the scheme. Of this number 252 were due to lack of opportunity to complete the treatment of the mouth on the previous occasion, 34 were due to an unusually long inter-inspection period, and only 143 were due to the fact that the caries was so rapid as to destroy the tooth in the ordinary inter-inspection period. These figures are extremely encouraging, showing, as they do, that if there were no refusals, and no extra long periods between inspections, there would be very few permanent teeth destroyed. In the East of the County where treatment is carried out principally in clinics, and where there is consequently more opportunity for treating those children who could not for any reason be dealt with on the day arranged, the total number of unsaveable teeth, apart from refusals, was only 17.

The difference between the number referred for treatment, including 1,120 cases brought forward from 1928, and the number treated was 9,970. The details are given in the following statement :—

	Refusals.	Absent on day of Treatment.	Left School.	To be treated in 1930.	Treatment deferred.
East of County (Mr. Birch)	1501	314	53	640	1
South of County (Mr. Keenan)	1668	115	9	314	56
North of County (Mr. Catchpole)	3480	272	22	1479	46

It will be noted that there were no less than 6,649 refusals of treatment. The following table shows the schools in which the percentage of consents was very high and those in which it was very low. In 1928, 25 schools had over 90 per cent. of "consents," and there were 50 with not more than 50 per cent. In 1929, there were 26 schools with over 90 per cent. of consents and 43 schools with less than 50 per cent.

## PERCENTAGES OF "CONSENTS" FOR TREATMENT.

## SCHOOLS WITH 90 PER CENT. OR OVER.

*Sutton Maddock	..	..	..	100	*Leighton	..	..	..	94
Kynnersley	..	..	..	100	Weston Lullingfield	..	..	..	92
*Rhyd-y-croesau	..	..	..	100	*Hordley	..	..	..	92
Donington	..	..	..	100	Bishop's Castle Infants	..	..	..	92
Tuck Hill	..	..	..	98	*Langley Council Girls	..	..	..	92
*Lee Brockhurst	..	..	..	98	*Church Aston	..	..	..	92
Jackfield C.E. Infants	..	..	..	97	Edgmond	..	..	..	91
Clunbury	..	..	..	96	Little Ness	..	..	..	91
*Berrington	..	..	..	96	*Chapel Lawn	..	..	..	91
*Wroxeter	..	..	..	96	*Loughton	..	..	..	91
Child's Ercall	..	..	..	96	Fitz	..	..	..	91
*Adderley	..	..	..	95	Church Preen	..	..	..	91
Ryton	..	..	..	95	*Langley Council Boys	..	..	..	90

\* In these schools over 90 per cent. consents were received in 1928 also. Sutton Maddock has returned 100 per cent. consents for the last three years.

## SCHOOLS WITH NOT MORE THAN 50 PER CENT.

Lydbury North	..	..	..	24	Wem C.E.	..	..	..	44
Whitchurch Wes. Mixed	..	..	..	30	Morda	..	..	..	45
Selattyn	..	..	..	31	Bridgnorth St. Mary Mixed	..	..	..	46
Neen Sollars	..	..	..	33	West Felton	..	..	..	46
Nash	..	..	..	35	Myddle	..	..	..	47
Wem Undenominational	..	..	..	35	Eardington	..	..	..	47
Wrockwardine C.E. Boys	..	..	..	36	St. George's C.E. Infants	..	..	..	47
Stoke-upon-Tern	..	..	..	37	Clun	..	..	..	48
Newtown	..	..	..	38	St. George's C.E. Girls	..	..	..	48
Clee St. Margaret	..	..	..	38	Ludlow C.E. Infants	..	..	..	48
Baschurch	..	..	..	39	Neen Savage	..	..	..	48
Prees Lower Heath	..	..	..	39	Llanyblodwell	..	..	..	49
Kinlet	..	..	..	39	Marton	..	..	..	49
Clungunford	..	..	..	40	Middleton	..	..	..	49
Bridgnorth, St. Leonard's Girls	..	..	..	41	Ruyton-xi-Towns	..	..	..	49
Little Drayton Council Mixed	..	..	..	41	Oswestry Council Senior Boys	..	..	..	49
Coreley	..	..	..	41	Oswestry Trinity Mixed	..	..	..	49
Great Ness	..	..	..	42	Whixall C.E.	..	..	..	49
Plowden R.C.	..	..	..	43	Much Wenlock Infants	..	..	..	50
Acton Scott	..	..	..	44	Oswestry Council Infants	..	..	..	50
St. Martin's C.E.	..	..	..	44	Kinnerley	..	..	..	50
Whitchurch C.E. Girls	..	..	..	44					

It may be looked upon as a reflection on our educational system that, although it has brought about great changes for the better, after fifty years of universal education we should find a considerable percentage of the people refusing dental treatment for their children, when skilled treatment is provided free of cost. We know that in the more highly educated classes dental treatment is sought after and obtained at much cost and inconvenience, and we may infer that the large majority of parents who refuse dental treatment do so because they fail to understand and appreciate the importance of sound teeth in the maintenance of health and the damaging effect on the whole organism of dental caries.

## OPEN AIR EDUCATION.

*Playground Classes* are encouraged, but although they are increasing, they are held only in a comparatively small number of schools. In a climate such as we have in this country, it is unlikely that there will be any great development of open-air education until it is possible to give it by educating children in schools constructed on the open-air principle, which in this county has been adopted, although at present no open-air schools have been completed.

A *School Journey* and *School Camp* was organised by the Head Teacher of the Coalbrookdale Council Boys School, and fourteen boys took part, camping out for ten days at Stratford-on-Avon, and visiting places of interest and engaging in healthful exercises and games. An obvious improvement in the health and appetite of the boys was noticed, and, on their return to work, they showed a keener and more intelligent interest in it.

*Residential Open-Air Schools.*—There are always a certain number of children who are in a persistently poor state of health, not traceable to any definite physical defect, but probably attributable in most instances to poor home circumstances, lack of proper food and to unhygienic conditions. No form of purely medical treatment can be expected to restore them to normal health, and the only remedy would seem to be to get them removed to where conditions of life will be better for them, and where their physical requirements will be more adequately met. It is for these children that a period of residence in an open-air school would be particularly beneficial, and four carefully selected children were sent to open-air schools in 1929, two of whom are still away. The two others have been discharged, after a stay of three months and four months respectively, greatly improved in general health and appearance and showing increases in weight of almost 4 lbs. in one case and almost 6 lbs. in the other.

## PHYSICAL TRAINING.

Exercise, fresh air conditions and proper food are the primary factors which govern growth and health, and by attention to these matters we strike at the root of disease. Measures directed to the early treatment of disease, or to the prevention of particular diseases, although important, can never yield the same result to the State, and consequently it is essential that we should concentrate our energies more especially on these general measures, which are essential for the full growth and vitality of the great mass of school children. Of these measures, a good scheme of physical instruction, including the encouragement of organised games and the provision of playing fields, is perhaps the most important.

In addition to attending to the physical development of all the school children, which is infinitely the most important matter, the question of remedial exercises for children requiring them has received considerable attention.

Those children whose deformities are serious are dealt with by admission for a period into the Orthopaedic Hospital. For the continuation of treatment in these cases, and for the treatment of slighter cases, it is most desirable that our School Nurses should work in close co-operation with the Orthopaedic After-care Centres in order that daily exercises may be carried out where necessary, and generally more attention given to this work than it is possible for the Orthopaedic Nurses to give.

The report of Mrs. Davey, the Organiser of Physical Training (see appendix) shows that the work is progressing most satisfactorily, so far as it is possible for one person to carry it out. The scheme works smoothly and the teachers on the whole greatly appreciate the assistance given.

**SCHOOL BATHS.**—An arrangement has been made in Whitchurch, Oswestry, Wellington, Ellesmere and Bridgnorth whereby the older Elementary School children in these areas are sent for swimming instruction once weekly. The Organiser of Physical Training is giving special consideration to the utilisation of natural waters in country districts for teaching swimming.

## CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.

**PARENTS.**—A notice is sent to all parents inviting their presence at the routine medical and dental inspections. A special effort is always made to get the parents of seriously defective children to attend all examinations.

**TEACHERS.**—The teachers have continued to afford great help in the work of medical and dental inspection and treatment.

In addition to the routine help at medical inspection described in the earlier reports, the teachers are asked to pay special attention to the attitude of the children in school and to correct false positions, to see that the children wear spectacles when prescribed, to see that children with visual and aural defects get the special school treatment indicated, to note abnormalities and call the attention of the Medical Officers to them, to exclude cases of suspected infections in accordance with directions and to report exclusions, and to distribute directions with regard to infectious disease to parents on certain occasions.

The influence of the teachers on the general hygiene of the school has been alluded to in other parts of this report.

**SCHOOL ATTENDANCE OFFICERS.**—The Attendance Officers are now working in close 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 excluded by the Medical Inspector for various conditions whose parents are not carrying out the treatment prescribed.

They attend at the medical inspections when required and are available for bringing up children who are absent and whose examination is very desirable. They are supposed to keep a strict lookout on children absent on account of verminous or skin conditions in order to see that the treatment prescribed is not neglected. In persistently verminous cases, where it is necessary to take legal proceedings and the nurse objects to appearing in court, they are always present at the final examination of the child, and are therefore able to give evidence when required.

### VOLUNTARY BODIES AND VOLUNTARY HELPERS.

Much of the routine work formerly undertaken by voluntary helpers is now done by the school nurses, and where the school nursing is done by the District Nurse the Secretary of the Local Nursing Association is very frequently most helpful.

The Inspector of the National Society for the Prevention of Cruelty to Children has been of great help in obtaining medical treatment where other means have failed, and in dealing with cases of gross neglect. The thanks of the Education Committee are due to the Society for their ready co-operation and prompt action.

## BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

*Methods of Ascertainment.*—For the ascertainment of these, reliance is placed principally upon the visits of the health visitor to the homes of the children under school age. These visits should bring to light with certainty all defective children who have been born in the County, and with a lesser degree of certainty defective children who have removed into the County.

In addition, the Attendance Officers make an annual census of all defective children, and for this purpose are supposed to visit every house. For defects that develop during school age, one has to rely upon the inspections of the Medical Officers and the vigilance of the teachers. In addition to these measures, the Attendance Officers call the attention of the Medical Department to children who are permanently absent from school.

To make ascertainment absolutely complete there should be prompt notification of movements of defective children from the area of one Authority to that of another. This is a matter which can only be satisfactorily undertaken by the help of the Attendance Officers and Teachers.

The following table gives particulars of the numbers of these exceptional children examined during the year by the Medical Officers and the results of the examinations :—

	Certified suitable for Special School on Form 302M. 38D, 39D. or 40 B.D.	Uneducable.	To be kept under observation.
		Notified to Local Authority.	
Mentally Defective .. ..	36	*10	38
Epileptic .. ..	1	..	2
Blind .. ..	1	..	..
Deaf and Dumb .. ..	4	..	1
Physically Defective ..	61	..	..

\* 7 Imbeciles, 3 Idiots.

Number of feeble-minded children certified as educable and suitable for Sandle-  
bridge in 1929 .. .. . 36

Number of these children admitted in 1929 .. .. . 1

Number not admitted .. .. . 35

Reasons for non-admission :—Parents' refusal .. .. . 18

Too old .. .. . 14

Awaiting vacancies .. .. . 1

Sent to another Institution .. .. . 2

The number of children admitted to special schools during 1929 was—Blind 2, Deaf and Dumb 3, Epileptic 0, Mentally Defective 3, Physically Defective 62.

During the year 1929, the striking feature was the large number of mentally defective children attending the Public Elementary Schools. These to a considerable extent consisted of children who had been certified for a special school, but either their parents objected to their removal, or they were considered too defective although to some extent educable.

These children are now put under systematic supervision of the whole-time school nurse, and, at the age of 16, are transferred to the supervision of the Health Visitors, although they cannot be notified formally to the Local Authority under the Mental Deficiency Act. A special class was started at Wellington in 1928 for backward children.

*Orthopaedic Hospital and Special School.*—The more serious orthopaedic cases are admitted to the Hospital on the report of the School Medical Officer, and assessed for payment according to ability to pay. The accommodation is such that there is no delay. The cases are discovered principally by the School Medical Officers and nurses, and every effort is made to get the cases early. On discharge from the Hospital they are kept under supervision at the After-care Centres, 16 in all, distributed throughout the County. Ten of these Centres are open weekly and 2 fortnightly. The cases are re-admitted to the Hospital for re-splinting, plasters, exercises or operation, as required.

*Schools for the Blind and Schools for the Deaf.*—In both these classes of schools accommodation is always found if the parents are willing for removal. Every effort is made to get these cases under early treatment.

*Mentally Defectives.*—The accommodation is not sufficient for the needs of the County, and would be grossly insufficient if all suitable cases were compulsorily removed. There are at present 13 children in Sandlebridge Special School from this County.

#### NURSERY SCHOOLS.

There are none of these schools in this County; nor does the need for provision appear to be particularly urgent.

CONTINUATION SCHOOLS.—There are no Continuation Schools in the County.

#### SECONDARY SCHOOLS.

There are 21 Secondary Schools, three of which are "Aided" schools, in which routine medical inspections are carried out.

Three of the schools are mixed schools and have to be inspected by male and female Medical Officers. Entrants, leavers and scholars aged 12 and 15 are examined. Owing to the shortage of staff, it was not possible to visit all the secondary schools each term. Nine schools were visited only once, seven twice, and five schools three times.

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 on pages 36 to 38.

The only dental inspection carried out in Secondary Schools is that done by the Assistant School Medical Officers at the time of medical examination.

Age	..	..	5	6	7	8	9	10	11	12	13	14
Average number of												
teeth decayed	..		4.9	5.8	4.6	4.3	2.8	2.5	1.5	1.7	1.7	1.5

The amount of caries in secondary school children is slightly greater than that amongst elementary school children. This difference is no doubt due to the systematic treatment of the teeth of the elementary school children.

## EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

The children over 12 years of age in private employment come under the notice of the Assistant School Medical Officers at each visit to the schools. The findings of the Medical Inspectors are at the service of the Juvenile Employment Committee and the Certifying Factory Surgeon. If the Medical Officers consider that a child is not fit for any specific employment, this information is transmitted to the Juvenile Employment Committee and the Certifying Factory Surgeon.

No definite statement of the findings of the School Medical Service as regards the physical conditions of employed children and young persons can be made, but the Assistant School Medical Officers report cases where they think the child's health is injured by their employment out of school hours, and the information is sent in these cases to the Secretary for Education for appropriate action to be taken.

### STATISTICAL TABLES.

TABLE I.—A.—ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections—							
Entrants	..	..	..	..	..	..	3791
Intermediates	..	..	..	..	..	..	4136
Leavers	..	..	..	..	..	..	2634
Total							10561
Number of other Routine Inspections							—

### B.—OTHER INSPECTIONS.

Number of Special Inspections	..	..	..	..	3647
Number of re-inspections	..	..	..	..	7165
Total					10812

TABLE II.—A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE  
YEAR ENDING 31ST DECEMBER, 1929.

Defect or Disease.					Routine Inspections.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)					(2)	(3)	(4)	(5)
Malnutrition	..	..	..	..	..	1091	..	..
Uncleanliness	..	..	..	..	987	..	..	..
Skin	Ringworm—							
	Scalp	..	..	..	8	..	3	..
	Body	..	..	..	8	..	..	..
	Scabies	..	..	..	12	..	1	..
	Impetigo	..	..	..	34	..	7	..
§Eye	Other Diseases (non-tubercular)	..	..	..	28	..	1	..
	Blepharitis	..	..	..	40	33	4	2
	Conjunctivitis	..	..	..	12	..	1	..
	Keratitis	..	..	..	..	..	..	..
	Corneal Opacities	..	..	..	5	..	..	..
	Defective Vision (excluding squint)	..	..	..	571	108	45	1
	Squint	..	..	..	101	7	11	1
	Other conditions	..	..	..	11	..	6	..
	Defective Hearing	..	..	..	24	3	6	..
	Otitis media	..	..	..	49	2	8	..
Ear	Other ear diseases	..	..	..	2	..	..	..
	Enlarged tonsils only	..	..	..	530	1025	46	19
	Adenoids only	..	..	..	85	109	9	5
	Enlarged tonsils and adenoids	..	..	..	361	87	27	6
Nose and Throat	Other conditions	..	..	..	19	3	2	..
	Enlarged Cervical Glands (non-tubercular)	..	..	..	11	472	1	12
Defective speech					..	57	1	2
*Teeth, Dental Diseases					444	..	19	..
Heart and Circu- lation	Heart Disease—							
	Organic	..	..	..	8	108	2	4
	Functional	..	..	..	..	64	..	2
	Anaemia	..	..	..	18	10	1	1
Lungs	Bronchitis	..	..	..	34	39	2	2
	Other non-tuberculous diseases	..	..	..	16	7	..	..

TABLE II.—*continued.*

Defect or Disease.				Routine Inspections.		Special Inspections.	
				No. of Defects.		No. of Defects.	
				Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)				(2)	(3)	(4)	(5)
Tuber- culosis	Pulmonary—						
	Definite .. ..	..	..	2	..	..	..
	Suspected .. ..	..	..	5	..	..	..
	Non-pulmonary—						
	Glands.. ..	..	..	14	..	2	..
	Spine .. ..	..	..	2	..	..	..
	Hip .. ..	..	..	2	..	..	..
	Other bones and joints	..	..	1	..	..	..
	Skin .. ..	..	..	..	..	..	..
Nervous system	Other forms .. ..	..	..	1	..	..	..
	Epilepsy .. ..	..	..	9	4	1	..
	Chorea .. ..	..	..	1	1	2	..
	Other conditions	..	..	2	3	..	..
Deform- ities	Rickets .. ..	..	..	13	28	1	..
	Spinal Curvature	..	..	61	22	4	..
	Other forms .. ..	..	..	424	99	51	5
Other defects and diseases .. ..				190	†628	15	53‡

§ In addition there were 151 "Routine" and 2 "Special" cases of defective vision which had been corrected by glasses at the time of examination.

\* This only includes the grosser cases requiring immediate treatment, others being left over for routine treatment by the School Dentist.

† Includes 513 Dull and Backward Children. ‡ Includes 40 Dull and Backward Children.

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

Group. (1)	Number of Children.		Percentage of children found to require treatment. (4)
	Inspected. (2)	Found to require treatment. (3)	
Code Groups :—			
Entrants .. .. .	3791	864	22.8
Intermediates and other routine inspections .. .. .	4136	979	23.7
Leavers .. .. .	2634	572	21.7
Total (Code Groups) .. .. .	10561	2415	22.9

TABLE III.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA ON DECEMBER 31ST, 1929.

			Boys.	Girls.	Total.
Blind (including partially blind).	(i) Suitable for training in a school or class for the totally blind.	Attending certified schools or Classes for the Blind ..	5	3	8
		Attending Public Elementary Schools .. .. .	..	..	..
		At other Institutions .. ..	..	..	..
		At no School or Institution ..	1	..	1
	(ii) Suitable for training in a School or Class for the partially blind.	Attending certified Schools or Classes for the Blind ..	3	2	5
		Attending Public Elementary Schools .. .. .	8	9	17
		At other Institutions .. ..	..	1	1
		At no School or Institution ..	4	2	6
Deaf (including deaf and dumb and partially deaf).	(i) Suitable for training in a School or Class for the totally deaf or deaf and dumb.	Attending certified Schools or Classes for the Deaf ..	8	8	16
		Attending Public Elementary Schools .. .. .	2	..	2
		At other Institutions .. ..	..	..	..
		At no School or Institution ..	..	1	1
	(ii) Suitable for training in a School or Class for the partially deaf.	Attending certified Schools or Classes for the Deaf ..	1	1	2
		Attending Public Elementary Schools .. .. .	..	1	1
		At other Institutions .. ..	..	..	..
		At no School or Institution ..	..	..	..
Mentally Defective.	Feeble-minded (cases not notifiable to the Local Authority).	Attending certified Schools for Mentally Defective children .. .. .	7	6	13
		Attending Public Elementary Schools .. .. .	35	30	65
		At other Institutions .. ..	1	..	1
		At no School or Institution ..	38	26	64
	Notified to the Local Control Authority during the year.	Feeble-minded .. .. .	4	2	6
		Imbeciles .. .. .	5	2	7
		Idiots .. .. .	3	..	3

			Boys.	Girls.	Total.
Epileptics.	Suffering from Severe Epilepsy.	Attending Certified Special Schools for Epileptics ..	..	2	2
		In Institutions other than Certified Schools ..	1	..	1
		Attending Public Elementary Schools ..	4	3	7
		At no School or Institution ..	5	3	8
	Suffering from Epilepsy which is not severe.	Attending Public Elementary Schools ..	23	14	37
		At no School or Institution ..	5	7	12
Physically Defective.	Infectious Pulmonary and Glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board. ..	3	2	5
		At other Institutions ..	1	..	1
		At no School or Institution ..	12	12	24
	Non-infectious but active pulmonary and glandular tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board ..	3	1	4
		At certified residential open-air schools ..	..	..	..
		At certified Day Open-air Schools ..	..	..	..
		At Public Elementary Schools ..	10	11	21
		At other Institutions ..	..	..	..
		At no School or Institution ..	8	9	17
	Delicate children (e.g., pre- or latent tuberculosis, mal-nutrition, debility, anaemia, etc.)	At certified residential Open-air Schools ..	1	1	2
		At Certified Day Open-air Schools ..	..	..	..
		At Public Elementary Schools ..	91	80	171
		At other Institutions ..	1	1	2
		At no School or Institution ..	30	28	58

			Boys.	Girls.	Total.
Physically Defective (contd.)	Active non-pulmonary tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or Board	5	3	8
		At Public Elementary Schools	32	26	58
		At other Institutions .. ..	..	..	..
		At no School or Institution ..	19	19	38
	Crippled children (other than those with active tuberculous disease), <i>e.g.</i> , children suffering from paralysis, &c., and including those with severe heart disease.	At Certified Hospital Schools	3	4	7
		At Certified Residential Cripple Schools .. ..	..	..	..
		At Certified Day Cripple Schools .. ..	..	..	..
		At Public Elementary Schools	151	140	291
		At other Institutions .. ..	2	1	3
		At no School or Institution ..	61	75	136

TABLE IV.—RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31ST DECEMBER, 1929.

TREATMENT TABLE.

GROUP I.—MINOR AILMENTS.

Defect or Disease.  (1)	Number of defects treated, or under treatment during the year.		
	Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
Skin—			
Ringworm—Scalp .. ..	75	8	83
Ringworm—Body .. ..	54	5	59
Scabies .. ..	30	..	30
Impetigo .. ..	514	..	514
Other Skin Diseases .. ..	254	16	270
Minor Eye Defects— (External and other, but excluding cases falling in Group II.) .. ..	213	23	236
Minor Ear Defects .. ..	210	5	215
Miscellaneous ( <i>e.g.</i> , Minor injuries, bruises, sores, chilblains, etc.) .. ..	1861	22	1883
Total .. ..	3211	79	3290

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye Defects treated as Minor Ailments—Group I.)

Defect or Disease.  (1)	Number of defects dealt with.			
	Under the Authority's Scheme.  (2)	Submitted to refraction by private practitioner or at Hospital apart from the Authority's Scheme.  (3)	Otherwise.  (4)	Total.  (5)
Errors of refraction (including Squint) .. ..	1010	52	25	1087
Other defect or disease of the Eye excluding those recorded in Group I.) .. ..	28	..	2	30
Total .. ..	1038	52	27	1117

Total number of children for whom spectacles were prescribed :—

(a) Under the Authority's Scheme .. ..	842
(b) Otherwise .. ..	56

Total number of children who obtained or received spectacles :—

(a) Under the Authority's Scheme .. ..	814
(b) Otherwise .. ..	56

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

Number of Defects.				
Received Operative Treatment.			Received other forms of Treatment.  (4)	Total number Treated.  (5)
Under the Authority's Scheme, in Clinic or Hospital.  (1)	By Private Practitioner or Hospital, apart from the Authority's Scheme.  (2)	Total.  (3)		
546	69	615	25	640

## GROUP IV. DENTAL DEFECTS.

## NUMBER OF CHILDREN DEALT WITH.

NUMBER OF CHILDREN.

Age	AGE GROUPS INSPECTED.												Specials.	Total.
	Under 5	5	6	7	8	9	10	11	12	13	14			
East of County .. ..	431	975	1280	1405	1538	1460	1122	972	1051	1134	98	81	11466	
(Mr. Birch)														
South of County .. ..	268	950	1514	1699	1901	1895	1399	1212	1321	1426	245	3	13830	
(Mr. Keenan)														
North of County .. ..	314	1411	1876	2192	2349	2270	1798	1532	1568	1615	268	37	17193	
(Mr. Catchpole)														
Total .. ..	1013	3336	4670	5296	5788	5625	4319	3716	3940	4175	611	121	42489	

				NO. OF CHILDREN REFERRED FOR TREATMENT.											Specials.	Total.
				Under 5	5	6	7	8	9	10	11	12	13	14		
Age	..	..	..													
East of County	..	..	..	188	500	693	785	869	792	578	460	509	508	45	81	6008
South of County	..	..	..	32	252	607	786	1004	1045	732	563	552	612	122	3	6310
North of County	..	..	..	117	699	1046	1239	1320	1219	894	691	665	701	103	37	8731
Total	..	..	..	337	1451	2346	2810	3193	3056	2204	1714	1726	1821	270	121	21049

(b) Referred for Treatment	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21049
(c) Actually treated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12199
(d) Re-treated (result of periodical examination)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8060

## NUMBER OF TEMPORARY TEETH DECAYED.

SAVEABLE.													UNSAVEABLE.												
Age	Under5	5	6	7	8	9	10	11	12	13	14	Under5	5	6	7	8	9	10	11	12	13				
East of County	1145	3098	3943	3975	3996	3161	1752	1030	445	269	17	244	849	1324	1315	1420	1154	547	373	268	120				
South of County	263	1504	1360	2448	2437	2026	1028	473	181	87	7	66	415	914	1166	1565	1446	830	453	229	133				
North of County	185	834	722	633	530	427	259	93	47	19	..	346	2197	3241	3409	3218	2459	1162	657	331	145				
Total	1593	5436	6025	7056	6963	5614	3039	1596	673	375	24	656	3461	5479	5890	6203	5059	2539	1483	828	398				

## NUMBER OF PERMANENT TEETH DECAYED.

Age	SAVEABLE.											UNSAVEABLE.										
	5	6	7	8	9	10	11	12	13	14	To- tal.	5	6	7	8	9	10	11	12	13	14	To tal.
East of County.	5	110	271	372	416	424	395	554	627	69	3243	1	..	4	10	32	53	65	107	117	18	407
South of County.	1	27	107	205	374	309	300	471	608	113	2515	..	..	5	26	98	101	98	179	251	64	822
North of County.	10	171	473	771	802	663	532	504	721	93	4740	..	23	42	129	253	248	253	349	476	101	1874
Total	16	308	851	1348	1592	1396	1227	1529	1956	275	10498	1	23	51	165	383	402	416	635	844	183	3103

## 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 Clinics. and Schools.	No. of Permanent Teeth		No. of Temporary Teeth.		Total No. of Fillings.	No. of Administra- tions of General Anaesthetics.	No. of other Operations.	
			Ex- tracted.	Filled.	Ex- tracted.	Filled.			Per- manent Teeth.	Temp- orary Teeth
East of County. 100	346	4093	206	2383	3975	442	2921	—	2300	793
South of County. 96	334	4468	420	1272	3771	301	1593	—	1086	650
North of County. 138	284	3835	409	1474	4490	461	2274	3	1453	222
Total 334	964	12396	1035	5129	12236	1204	6788	3	4839	1665

## GROUP V.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

- (1) Average number of visits per school made during the year by the School Nurses .. .. . 8.7
- (2) Total number of examinations of children in the schools by the School Nurses .. .. . 88928
- (3) Number of individual children found unclean .. .. . 4138 approx.
- (4) Number of children cleaned under arrangements made by the Local Education Authority.. .. . 0
- (5) Number of cases in which legal proceedings were taken :—
- (a) Under the Education Act, 1921 .. .. . 0
- (b) Under School Attendance Bye-laws.. .. . 14

## 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	20	Total.
Boys	..	..	..	..	1	2	9	7	14	36	96	40	36	106	17	8	4	7	..	383
Girls	..	..	..	8	4	5	6	13	35	66	181	58	49	178	21	20	16	3	..	663
Totals	..	..	..	8	5	7	15	20	49	102	277	98	85	284	38	28	20	10	..	1046

## B.—SPECIAL INSPECTIONS.

Boys	..	..	..
Girls	..	..	22
			<u>22</u>

## RE-EXAMINATIONS.

Boys	..	..	233
Girls	..	..	402
			<u>635</u>

## RETURN OF DEFECTS (SECONDARY SCHOOLS).

Defect or Disease.					Routine Inspections.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)					(2)	(3)	(4)	(5)
Malnutrition .. .. .	..	..	..	..	..	61	..	..
Uncleanliness .. .. .	..	..	..	..	5	..	..	..
Skin	Ringworm—				..	..	..	..
	Scalp .. .. .	..	..	..	..	..	..	..
	Body .. .. .	..	..	..	..	..	..	..
	Scabies .. .. .	..	..	..	..	..	..	..
	Impetigo .. .. .	..	..	..	1	..	..	..
Other diseases (non-tuberculous)					3	..	..	..
Teeth	Dental Diseases .. .. .	..	..	..	156	..	2	..
Nose and Throat	Enlarged Tonsils only .. .. .	..	..	..	38	55	..	..
	Adenoids only .. .. .	..	..	..	1	..	..	..
	Enlarged Tonsils and Adenoids ..	..	..	..	8	10	..	..
	Other conditions .. .. .	..	..	..	2	..	..	..
Enlarged Cervical Glands (non-tuberculous)					..	10	..	..
Goitre .. .. .	..	..	..	..	3	1	..	1
Eye	External Eye Disease .. .. .	..	..	..	2	..	..	..
	Defective Vision .. .. . (including squint)	..	..	..	98	79	7	..
Ear	Defective Hearing .. .. .	..	..	..	4	..	..	..
	Otitis media .. .. .	..	..	..	2	..	..	..
	Other Ear Diseases .. .. .	..	..	..	..	..	..	..
Defective Speech .. .. .					..	2	..	..
Intelligence (backward) .. .. .					..	7	..	..
Heart and circulation .. .. .					3	4	..	2
Anaemia .. .. .					2	2	..	..

Defect or Disease.					Routine Inspection.		Special Inspections.	
					No. of Defects.		No. of Defects.	
					Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)					(2)	(3)	(4)	(5)
Tuber- culosis	Pulmonary—							
	Definite .. ..	..	..	..	..	..	..	..
	Suspected .. ..	..	..	..	..	..	..	..
	Non-pulmonary—							
	Glands.. ..	..	..	..	I	I	..	..
	Spine .. ..	..	..	..	..	..	..	..
	Hip .. ..	..	..	..	..	..	..	..
	Other Bones and Joints ..	..	..	..	..	..	..	..
Lungs	Skin .. ..	..	..	..	..	..	..	..
	Other forms .. ..	..	..	..	..	..	..	..
	Bronchitis .. ..	..	..	..	..	I	..	..
Nervous System	Other Non-tuberculous diseases				I	I	..	..
	Headache .. ..	..	..	..	I	..	..	..
	Signs of Overstrain .. ..	..	..	..	..	I	..	..
Rheumatism .. ..	Chorea .. ..	..	..	..	..	..	..	..
Digestion .. ..		..	..	..	5	3	I	..
Deform- ities		..	..	..	2	I	..	..
	Spinal Curvature .. ..	..	..	..	8	25	..	..
	Flat Foot .. ..	..	..	..	57	59	I	I
Other Defects .. ..	Other Deformity .. ..	..	..	..	II	3	..	..
		..	..	..	15	3	5	I
Remedial Exercises advised .. ..					70		0	
Number of individual children found at Routine Inspection to require treatment .. ..					240		—	

*Treatment.*—Defects and the nature of the remedy required are explained by the Assistant School Medical Officer to the Head of the School at the time of Inspection.

The following is a summary of the information obtained by the Medical Inspectors by re-examination of the children referred for treatment at previous inspections:—

Defects treated during the year	Defective Eyesight.	Tonsils & Adenoids.	Defective Hearing and Ear Disease.	Other Conditions.	Skin Disease.	Teeth.	Orthopaedic Defects Treated.	Exercises for flat foot.
	45	5	2	5	2	78	41	82

## APPENDIX.

## REPORT OF MRS. DAVEY, THE ORGANISER OF PHYSICAL TRAINING, 1929.

It is gratifying to be able to report once more the continued appreciation of the teachers, as shown by their enrolment, of the instructional classes which have been held during the year.

During the year classes were held as follows :—

Date.	Centre.	Type of Class. For Teachers of	No. of Students.	Percentage of Attendance.
Jan. to March .. ..	Shrewsbury .. ..	Seniors and Infants	42	64.0
„ .. ..	Dawley .. ..	Infants, Seniors and Juniors .. ..	37	77.6
Jan. to April .. ..	Wellington .. ..	Seniors .. ..	51	74.2
Oct. to Dec. .. ..	Oswestry .. ..	Seniors .. ..	33	73.5
„ .. ..	„ .. ..	Infants and Juniors	55	82.4

Inclement weather, however, interfered with the classes at Wellington and Dawley. For a few weeks these had to be omitted as many of the schools were closed owing to burst pipes, illness, etc. The Y.M.C.A. Hall at Wellington also suffered from a burst pipe and was not available. The course at Dawley was curtailed owing to the unsuitability of the only available hall—ventilation, lighting, and heating being very unsatisfactory.

*General Progress.*—Definite and encouraging progress can be reported in all branches of the work. The extent of progress must necessarily vary with the amount of interest and sincerity shown by the individual teachers. Only in a very small number of schools has the work been at a standstill during the last year. In the majority the teachers show that they possess a surer understanding of the fundamentals underlying successful teaching.

Although there is still need of further progress, yet there is a definite and unmistakable improvement in the general posture of the school child, and less time is wasted in getting ready for the performance of exercises.

*Playground Games and General Activities.*—Playground games and general activities are improving and “practice” games, which lead up to the major games, are given with more purpose than formerly, although teachers still need to use far more enterprise and appreciation of the children’s capabilities in jumping, ball games and such activities, which encourage suppleness, agility and alertness.

The best use of playground space is particularly important under existing circumstances. Timetables should be arranged so that playgrounds, unless exceptionally large, are not shared, where it is possible to do otherwise.

*Field Games.*—Where playing fields are available, good use is made of the ground ; this observation, however, must be made with reservation where the girls are concerned. Too often the field is used with great advantage by the boys, while the girls still play their organised games (chiefly netball) in the playground.

Bridgnorth has been especially fortunate in obtaining the use of an excellent playing field, the gift of Major Foster. An enjoyable and valuable organisation of games should follow this splendid acquisition. Unfortunately, St. Mary’s Schools are too far away to use the field in school hours for organised games. They are still badly in need of a field near the school.

Ludlow has been fortunate in obtaining the use of a field very near East Hamlet schools, but near enough to be used by the other schools as well.

Oswestry, Whitchurch and Wellington are still insufficiently provided for, but these matters are receiving the earnest consideration of the National Playing Fields Association.

### Netball League Results—1928—1929 Season.

Wrekin Area	..	..	Winners	—No League Matches owing to reorganisation of schools.
Oswestry	..	..	..	—Oswestry Senior Girls.
Newport	..	..	..	—Donnington Wood Girls.
Ironbridge	..	..	..	—Madeley C.E. Girls.
Wem	..	..	..	—Hadnall C.E. Girls.

Madeley C.E. Girls also won the knock-out competition in their area.

*Equipment.*—The teachers are appreciative of the help which the L.E.A. gives towards the acquisition of necessary material for Physical Training. One hundred and eighty-six schools were provided with useful articles, such as ropes, balls, bats, etc., during the year.

A lecture and demonstration was given by the Organiser at Ditton Priors on June 26th. Teachers from all schools in the area attended. The children from Ditton Priors school were used for the demonstration.

*Grants.*—Six grants of £5 each were again given by the L.E.A. to enable teachers to attend "Refresher" Courses in the summer vacation. Teachers from the following schools were selected :—

Wellington	..	..	Senior Boys and Girls.
Shrewsbury	..	..	St. Giles.
Ludlow	..	..	East Hamlet Girls.
Pontesbury	..	..	Mixed.
Shifnal	..	..	Mixed.

*Swimming.*—Perhaps it is in this branch of Physical Training that most progress was made in 1929. As the Organiser reported last year, she intended giving a considerable amount of attention to the subject. The work was approached by the Organiser holding meetings with the teachers in each respective area where there are Swimming Baths, advice was given and discussions followed on the best methods of tackling the subject.

This was followed by a demonstration class at the Baths, where the Organiser took classes of beginners and of more experienced swimmers. The method advised is the "Class" method—where the children all work together as a class and are not taught individually, while the majority are splashing about. The teachers responded loyally to the suggestions made, and the results are very encouraging.

It is hoped that during the ensuing seasons the methods suggested will become generally accepted. Some teachers who are not swimmers, find the teaching difficult, but credit is due to those who are learning to swim in order to be of more help to their classes.

Bridgnorth again was fortunate. A new open-air swimming bath was opened in June, arrangements were made for the school children to attend, and the subject was taken up with enthusiasm by teachers and scholars.

Thanks are due to the Bridgnorth authorities for their efforts in providing an open-air bath, which should prove of great benefit to the health and development of the children of the town.

The river offers similar facilities in Ludlow, and the Organiser would be gratified to find steps in this direction being taken by the Ludlow authorities.

KATHARINE W. DAVEY.