[Report 1933] / Medical Officer of Health and School Medical Officer of Health, Swindon Borough.

Borough Swindon.

OF

EDUCATION COMMITTEE.

Annual Report

FOR THE YEAR 1933

OF THE

SCHOOL MEDICAL OFFICER

(DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.)

SWINDON.
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School Medical Officer—Dunstan Brewer, M.R.C.S., L.R.C.P., D.P.H.

Assistant School Medical Officers—
J. Stevenson Logan, M.B., Ch.B., D.P.H.
Violet Redman King, M.B., Ch.B. (Leeds)

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Oliver Beakley Pratt, M.A., M.B., B.Ch., (Oxon) D.O., M.R.C.S., L.R.C.P.

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M. F. Forrester Brown, M.D. (Lond.) M.S.

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Kenneth W. Massey, L.D.S. (Liverpool).

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Miss A. M. Hoare
2 *years Certificate of Hospital Training.*
Certificate of Central Midwives Board.
Certificate of the Royal Sanitary Institute.

Miss I. D. Sampson
3 *years Certificate of Hospital Training.*
Certificate for Tuberculosis (Royal Chest Hospital, London).
Queen's Nurse.
Certificate of Central Midwives Board.

Miss E. M. Pilcher
3 *years Certificate of Hospital Training.*
School Nurses and Health Visitors and Tuberculosis Certificate.
Certificate of the Royal Sanitary Institute.

Miss A. Hawkins.
4 *years Certificate of Hospital Training.*
Certificate of Central Midwives Board.

BOROUGH OF SWINDON.

EDUCATION COMMITTEE.

Area	6,021 acres
Number of Elementary Schools	16
Number of School Departments	34
Recognised Accommodation	11,334
Number of Children on Register	9,543
Average Attendance	8,382

Number of Secondary Schools	3
Number of Scholars on Roll :—	
The College, Secondary School	298
Euclid Street Secondary School	257
The Commonweal Secondary School	300

To the Chairman and Members of the Education Committee of the Borough of Swindon.

LADIES AND GENTLEMEN,

I have pleasure in presenting the report upon the Medical Inspection and Treatment of School Children in the Borough for the year 1933.

CO-ORDINATION.

For the past thirteen years the school medical service of the Borough of Swindon has been so intimately co-ordinated with the other health services of the borough that no separation of the functions is possible except on paper. It is hoped that in the future this artificial separation of the school medical department may be completely obliterated and the school medical service, as a separate entity, cease to exist. A step in this direction will occur in 1934 when the school nurses, as such, will be abolished and the nursing of school children will become a function of health visiting. The segregation of the school medical department from general public health has an historical interest, for when the Education Provisions Act of 1907 was passed, there were no public health functions with which the school work could be incorporated. The Maternity and Child Welfare Act of 1918 clearly led the way to a fusion of all measures to promote the health of children. Either maternity and child welfare must be a branch of school medicine, or school medicine must be a branch of maternity and child welfare, and the reason for discarding the first and accepting the second, lies in the connection of both with epidemiology which now rules the whole of preventive medicine.

FINDINGS OF MEDICAL INSPECTION.

Though the percentage of children found fully efficient on medical inspection in 1933 was 73% against 76% for 1932, the percentage of children found to be in need of treatment sank from 28.8% to 21.2%. The fall in the percentage of 'Entrants' with defects calling for remedy, was considerable, the figure for last year being 17.4% or less than one-fifth.

There was a small increase of scalp ringworm, but a drop in scabies amd impetigo. The parasitic skin diseases are not, in Swindon at present, a problem of any magnitude, though in past years ringworm had been a serious matter to tackle and in some

years impetigo has caused not only a great amount of work, but a certain amount of anxiety.

There was an increase in the prevalence of conjunctivitis which was to be expected in a year which was hot and dry.

The state of the school children in 1933 was, to a large extent, influenced by the epidemiological situations which ruled during the year. Rheumatism was on the increase. For years rheumatic infection in Swindon has been at a low ebb, but last year there were distinct signs that its incidence is on the flow. We therefore had an unusually large number of new cases of organic heart disease due to rheumatic infections.

Measles was practically non-existent, so that we saw little of those forms of ill-health which result from and are connected with this infection.

Diphtheria was rife and deadly; but this disease leaves little or nothing behind it. Diphtheria may make children ill for some weeks or months, it may kill them, but it practically never damages them.

Whooping Cough was severe and caused 15 deaths among the children of Swindon. Though one of the commonest, Whooping Cough is one of the most imperfectly known of the parasitic infections; apart from the acute phase we do not know to what extent it damages, or may damage, the organism.

Tuberculosis is steadily diminishing and has ceased to be a disease of primary importance in childhood.

Rickets in a form which can be clinically recognised as rickets is now rare, but there is absolutely no improvement in the resistance of the teeth of infants to caries.

The abundant sunshine of last year and the more varied and abundant food supply which is now available were instrumental in reducing the nutritional or deficiency diseases of school children and this in spite of the somewhat large amount of unemployment in the town during most of the year.

There was a notable diminution of thyroid enlargement particularly amongst adolescents.

Those defects, diseases, and distresses of children which are dependent upon unfavourable environment can be and are reduced to a certain level, below which no improvement can be

obtained by ordinary means. It is clear that this level is governed by the level of parental mentality. The children of parents whose mental capacity does not fall greatly below the normal can generally be kept free from preventable disease, but those of parents below this level cannot respond to means which are applicable to the majority. We therefore find (and this is not only locally but generally true throughout the world) that though the percentage of dirty heads, rickets, neglected mouths, etc., can be reduced and kept at a figure which is low but much above zero, to get further improvement seems almost impossible.

SCHOOL DENTISTRY.

Notwithstanding the enormous amount of research that has been made into the causes of dental disease and the effort which has been made to give practical expression to what appear to be sound conclusions, no progress whatever has been made in the prevention of dental disease. In almost every part of the world the same story is told; the amount of dental defect in school "entrants" increases and does not diminish. But if the prevention of dental disease has made no headway, the treatment of it has ensured sound, if somewhat artificially sound, dentition of a large number of children and can ensure a sound and healthy mouth for all. As an unhealthy mouth is one of the major causes of grave and fatal disease of other parts, school dentistry, though not itself preventive of dental disease, is preventive in the true sense of the word of much of the most serious diseases of mankind at all ages. The benefit of school dentistry is one of the most solid things that we have in child welfare and as it is both the cheapest and the easiest, it should be pushed to its logical conclusion—which is that every child of every age should be able to command the services of the school dentist. This cannot be done at the present time for our staff of two full-time dentists is insufficient for the purpose, but as the best that we can do is so highly satisfactory, one would imagine no more economic method of spending public money than to make the school dental department equal to its task.

ORTHOPAEDIC DEPARTMENT.

In 1933 the Orthopaedic Department was completely re-organised in accordance with the following scheme :—

TREATMENT OF SWINDON CASES AT THE WILTS COUNTY COUNCIL ORTHOPAEDIC CLINIC AT GORSE HILL.

1. Cases from Swindon Borough referred to the Orthopaedic Surgeon shall be seen by the Surgeon on the AFTERNOON of each THIRD TUESDAY in EVERY MONTH.

2. No Swindon case shall be seen by the Surgeon at any time other than the AFTERNOONS of the THIRD TUESDAY, and no case other than a Swindon case shall be seen on those AFTERNOONS

3. The session shall last for 1½ hours approximately, and shall be paid for at the rate of 2½ guineas per session.

4. No case shall be seen at the Swindon Clinic other than a child referred by the Borough Medical Officer. Each child so referred shall present a card signed by the Borough Medical Officer stating the date and time at which the child is to attend. He shall not be seen at any time or day other than that which appears on his card.

5. The Orthopaedic Surgeon acts primarily as a Consultant whose opinion is sought by the Borough Medical Officer. Either the Medical Officer himself, or one of his assistants shall attend the Surgeon's Clinic and shall take such notes as are required for the Medical Officer's use, including notes on any treatment advised by the Surgeon. For this purpose special cards shall be used. The Surgeon shall have her own case sheets as heretofore which she shall keep in a filing cabinet supplied by the Swindon Corporation. This cabinet and its contents shall remain at, and belong to the Clinic, but the Medical Officer, or his medical assistants shall be empowered to examine the case papers at any time, but not to remove them from the Clinic, nor to disturb their order.

6. The Orthopaedic Surgeon shall settle what number of new and old cases she can see at each session, and the Borough Medical Officer shall arrange, so far as is possible, that such numbers present themselves at the Clinic. All arrangements for the attendance of cases shall be made by the Borough Medical Officer.

7. The Orthopaedic Surgeon shall say whether, in her opinion, it is desirable for any case to be seen by her again, or for any case to attend the Sister's Clinic for any form of treatment. If the Borough Medical Officer accepts this advice he shall make arrangements for these future attendances at the Clinics.

8. No treatment involving expenditure shall be given without the sanction of the Borough Medical Officer.

9. No charge of any kind shall be made to any child, or parents or guardians of any child, referred by the Borough Medical Officer, but the Corporation of Swindon shall guarantee the payment of 1/6d. for each attendance of each child for whom they are responsible, and moreover, shall guarantee payment for any apparatus supplied and for hospital treatment prescribed by the Surgeon and accepted by the Borough Medical Officer.

10. Where hospital treatment is necessary the Surgeon shall indicate, so far as she is able to do, the number of days hospital treatment which will be necessary. Should it be found subsequently that the number of days is likely to be exceeded, notice of such excess must be given to the Borough Medical Officer as soon as practicable, and in any case before the number of days already sanctioned has expired.

11. The Education Committee or the Maternity and Child Welfare Committee shall recover from the guardians of the children sent for orthopaedic treatment by the Borough Medical Officer such contributions towards the cost of treatment as the Committees shall determine in each case. No contribution is payable on behalf of advice given by the Orthopaedic Surgeon, for this is part of inspection and not treatment. The Borough Medical Officer shall bring before each Committee the names and particulars of every case for whom he has sought treatment at the Orthopaedic Department.

12. The fee payable to the Surgeon, namely, 2½ guineas per session, which works out at about £30 per annum, shall be paid direct to the Surgeon by the Education Committee, and they shall recover from the Maternity and Child Welfare Committee a contribution based on the relative use made of the Clinic by the two Committees. The fees for attendance, namely, 1/6d. per attendance per child, and the fees for apparatus shall be paid to the Secretary of the Clinic, and the fees for hospital treatment shall be paid direct to the Hospital; in each case upon presentation of an account which shall be signed after scrutiny by the Borough Medical Officer.

13. The Corporation of Swindon is not entitled to accept responsibility for treatment or management of cases of notified tuberculosis. Any Swindon case which may be tuberculous referred to the Clinic by the Borough Medical Officer remains the responsibility of the Borough of Swindon, unless and until the case is officially notified as one of tuberculosis. Immediately such a notification is made, the case is to be transferred to the County Tuberculosis Officer and henceforth remains within his jurisdiction. Officially there cannot exist a case of tuberculosis which is not notified.

14. Attendances at Sister's Clinics.

The Sister's Clinics generally are not overcrowded. Swindon cases will be referred to the Sister's Clinics from the Surgeon's Clinics. It will not be practicable for the Borough Medical Officer or his assistants to attend the Sister's Clinics, and it will happen that a case seen by the Sister in one week will be required to be seen by her again in a subsequent week, or, having seen a case and possibly fitted it with apparatus, the Sister may require the case to be seen again by the Surgeon. If the Sister when she has completed her Clinic will leave a note to the Borough Medical Officer, he will automatically sanction these further attendances so far as the Sister's Clinics are concerned, and will leave the Sister free to make such further appointments upon the child's attendance card at the time that she sees the child; but as regards the cases which she refers to the Surgeon it shall be the duty of the Borough Medical Officer to decide the day upon which the Surgeon shall see the case, so as to ensure that no Surgeon's Clinic shall be overcrowded.

The new arrangements for the diagnosis and treatment of orthopaedic defects, came into operation in September of this year. At this early date it is possible with confidence to report that the new scheme is working well. The time spent in waiting by the patients is much decreased, to everyone's satisfaction. The school medical records are available for the Surgeon, and the diagnosis and treatment discussed with one of your Assistant Medical Officers.

The services of the School Nurses and Health Visitors are utilised in 'following up' where necessary and it is now possible to control both the special and general treatment of the child.

Table Showing Defects Receiving Treatment at Orthopaedic Clinic.

	Maternity & Child Welfare Children			Elementary Scholars.			Secondary Scholars.			Total No. of cases	Total No. of Consultations.
	New	Old	Consultations.	New	Old	Consultations.	New	Old	Consultations.		
Congenital Deformities—											
1. Dislocation of hip	....	1	1	....	....	....	....	....	....	1	1
2. Talipes	....	1	2	....	2	2	....	....	....	3	4
3. Scoliosis	1	....	1	....	....	....	....	....	....	1	1
4. Torticollis	....	....	....	....	1	1	....	....	....	1	1
Diseases of Nervous System—											
1. Poliomyelitis	....	....	....	....	1	3	....	....	....	1	3
2. Hemiplegia(not poliomyelitis)	....	....	....	....	1	1	....	....	....	1	1
3. Post Encephalitis Lethargica	....	1	1	....	....	....	....	....	....	1	1
4. Various	3	....	4	2	1	3	....	....	....	6	7
Rickets—											
1. Acute	3	....	6	....	....	....	....	....	....	3	6
2. Sequelae of Old Rickets	1	1	2	1	5	6	....	....	....	8	8
Hammer Toe	....	....	....	1	1	3	....	....	....	2	3
Flat Feet	1	....	2	....	3	3	1	1	2	6	7
Faulty Posture	1	....	1	1	1	2		1	1	4	4
Injuries	....	....	....	1	....	1	1	....	1	2	2
Various	1	1	4	....	3	5	2	1	3	8	12

New Cases are those which attended for the first time since September, 1933.

EAR DISEASE AND DEFECTIVE HEARING.

There is no doubt that the management of the deaf and of the deafened has not, up to the present, received the consideration which it deserves. Defective hearing is about as common as defective eyesight and deafness is about as common as blindness. Defective sight is more easily relieved than defective hearing, but the latter is of greater educational importance. Until recently we had nothing but the crudest methods of estimating hearing, but the introduction of the audiometer has remedied this. In 1933 the Swindon Education Committee purchased a gramophone audiometer and this is now being used to estimate degrees of deafening and to measure alterations in hearing capacity which may result from treatment or from the natural cessation, or advancement of disease. It is too early yet to estimate what good may come from the use of the audiometer, but we anticipate that it will be a considerable help in the management of deafened children.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

This category contains those children who are certified defectives, *i.e.*, children suffering from grave crippling incurable defects who can never make efficient citizens and who must throughout life be a charge upon the community. It is obvious that not only humanity but economics urge us to reduce the number of these children to the lowest possible limit and almost any measure which succeeds in reducing the list is financially sound. It is not however sound finance to give these children treatment which may slightly improve them, but cannot succeed in removing them from the defective category.

Apart from eugenics, which are outside the scope of school medicine, very little can be done to alter the supply of mentally deficient children; there is a slight possibility in the very early treatment of a few cases of secondary amentia, but this work belongs to infant welfare rather than to school medicine.

We know nothing of the causes of true epilepsy and cannot reduce its incidence, but we can make quite certain of its correct diagnosis and this is important, for certain children in which the presence of epilepsy is suspected, are not true epileptics and will recover if they are treated appropriately, but will degenerate if they are treated as epileptics.

The reduction in the number of blind children depends mainly upon infant welfare. Blindness from ophthalmia neonatorum, once the commonest of all forms of blindness in children, can be

eliminated, and actually in Swindon has been suppressed, the youngest person blind from ophthalmia neonatorum being now fifteen years old. Another cause of blindness, interstitial keratitis (Congenital syphilis), is also capable of prevention, but to ensure the extermination of this disease, treatment must be given before birth; treatment after the disease becomes evident, though, on the whole satisfactory, is somewhat uncertain. The other common causes of blindness in children are certain congenital and hereditary diseases, some capable of partial remedy and others not; detachment of the retina, which may be said to be in part preventable and curable; glaucoma which is incurable, and accident which, in theory, is preventable, but in practice is not, because an accident is something which has happened from failure of the means to prevent it.

How much deafness, if any, is preventable, is somewhat uncertain.

Cretinism is exceedingly rare in Swindon and it is some years since we have had any child certifiably defective from this condition. On the face of it this seems odd, because of the large amount of goitre which is present locally, but the research into goitre which is being done locally, taken in combination with that which has been done elsewhere, notably in the United Provinces of India, explains why cretinism and myxœdema are practically unknown in Swindon, whilst exophthalmic goitre is inordinately frequent.

PROVISION OF MEALS.

Under Sections 82-84 of the Education Act, 1921, free dinners have been provided for necessitous school children on week-days during term time and school holidays. The number of children fed during the year was 47 and the total number of meals supplied was 9,750. The meals are cooked and served at the Cookery Centres and a specimen dietary is shewn below.

Week Day.	Centre.			
	Lincoln Street	Rodbourne Cheney	Westcott	Ferndale Road
Monday	Boiled Meat. Potatoes Jam Tarts.	Lamb Chops. Onion Sauce. Apple Tart and and custard.	Meat pie and potatoes. Milk Pudding.	Beans, potatoes, gravy. Jam Tarts.
Tuesday.	Lentil Soup. Suet Balls Potatoes. Sultana Pudding.	Roast mutton. Potatoes. Cauliflower. Fruit and Custard.	Baked beef. Potatoes. Greens. Rice pudding	Fish, Potatoes. Steamed Pudding.
Wednesday.	Brown Stew. Potatoes. Baked apples & Custard	Boiled mutton. Carrots, Turnips, Potatoes, Jam tarts.	College Pie. Potatoes. Peas. Bread & Butter Pudding.	Potatoes. Yorkshire pudding. Gravy. Roly-Poly pudding.
Thursday.	Meat pudding. Potatoes. Milk pudding.	Cottage Pie. Rice pudding.	Meat & Vegetable Stew Sprouts. Rice pudding.	Meat rolls. Potatoes. Cocoa and Cakes.
Friday.	Cornish Pasties. Blanc-mange and Bread and Butter pudding.	Toad in the Hole Cabbage. Potatoes. Fruit & Blanc-mange	Lentil Soup. Potatoes. Sultana Pudding.	Liver. Potatoes. Gravy. Currant pudding
Saturday.	Boiled Meat. Potatoes Currant Pudding.	No Meal Served.	No Meal Served.	No Meal Served.
Sunday	Roast Beef. Potatoes Blanc-mange.	No Meal Served.	No Meal Served.	No Meal Served.
No. of Children attending for dinners	25	3	3	16

SCHOOL BATHS: EMPLOYMENT OF CHILDREN AND YOUNG PERSONS INFECTIOUS DISEASE: FOLLOWING UP: CO-OPERATION: NURSERY SCHOOLS: SPECIAL SCHOOLS: AND SPECIAL DEPARTMENTS.

In the year 1933 there were no change in these functions.

HEALTH EDUCATION.

The chief means of health education in Swindon are by lectures given before various societies, clubs, etc., and by the circulation of the journal 'Better Health' of which we have a local edition which is well circulated and which directly and indirectly maintains a certain amount of liveliness in matters concerning health.

SPECIAL INQUIRIES.

There are, at present, numerous special inquiries in progress in Swindon carried out by the School Medical Officer and the two Assistant School Medical Officers, but nothing useful can be said about any of these at the present time, except for that which appears at the end of this report. In the course of a few years something which may be of very material value will eventuate from the investigation into the blood states of children.

EPILOGUE.

The school medical service has for some years reached a static condition in so far as it has carried out its implied mandate under the Education Acts. The Act of 1907 which brought Medical Inspection into existence, required the inspection and observation of all school children with the object of finding out individually and collectively the state of health and departures of normality of the school population. Later Acts placed upon Education Authorities the power or the command to arrange for the remedy, so far as it is possible, of the unhealthy conditions of school children. At the present day there should be no departure from health of any child attending a state controlled school which is not known to the school medical department, and none for which appropriate remedies are not forthcoming and in fact delivered. The actual practice falls short of the ideal in one or two particulars, but where it does so, there is always a reason, if not an adequate excuse. Yet, on the whole, we might say that the school medical department has reached a state which completely covers everything which was visualised in 1907. Since that date there has been considerable advance in the technical side of medical treatment so that means of treating diseases are available which were not in existence in 1907, but which offer comparatively little difficulty in incorporation with the service. But something greater and vastly more important has happened during the last twenty five years as the result of philosophical speculation upon the accumulated data that the school medical service and allied branches of public health have delivered to us. Some of us who have grown old in the practice of public medicine and who retain our memories and honesty can re-visualise the medical philosophy of the beginning of the century and not only recognise the vast change which has occurred within the generation, but can follow the steps by which this change has come about. The time has arrived for those who are in a position to do so, to set out before the generation that is now coming on, the changes in thought which have been maturing and the influence which they should have, and eventually must have, upon the practice of preventive medicine.

The public in general is what it is pleased to call ' practical minded ' and rather prides itself on its contempt for philosophical speculations ; but all advances which lead anywhere are deductions from philosophy and the so-called practical man never produces anything but debts and confusion. You cannot deal with organic beings as though they were mechanism, for they are not. Up to the middle of the 19th Century the mathematical and physical sciences had been studied, but biology had been neglected and it was the belief amongst all thinking men that the phenomena

of life could be reduced to physical terms. The early students of the biological sciences were impressed with the same idea and as the vast advances in biochemistry and biophysics delivered a wealth of knowledge of great practical value, it seemed that the older ideas of organic beings were fundamentally sound.

The individuals of the human species are 'samples' no two of which are in all respects similar. They vary from the best which the species is at present capable of delivering, to the worst, which are not only failures, but are incapable of survival except by artificial culture; gradation from top to bottom in every particular is perfectly regular. The great majority clusters around a mean and this mean must be considered to be the normal. The word 'normal' is often used to carry some implication of perfection, so that we have people telling us that in various particulars only five or ten per cent. of us are normal. This is a misuse of the word, but it is something worse, for it suggests that there is a standard of perfection and that that standard is known to us. What it does mean in practice is that certain people invent some hypothetical standard which they consider ought to be reached and label all those who do not reach it as defective. For instance, a throat surgeon stated that only 5% of English children had normal throats, and a physical culture expert that not more than 2% of children had perfectly formed limbs. One would readily admit that certainly not 2% of our citizens have legs of sufficient artistic merit to have any commercial value for exhibition purposes, though the vast majority have legs which are quite serviceable for physiological purposes.

The normal human being is one the sum of whose parts and functions approaches the average. There is, of course, something which is better than the normal, though we are seldom in a position to say definitely that any super-normal quality is wholly advantageous.

The object of school medicine and of all public health work is to turn out efficient citizens by ensuring that those with the natural capacity to be efficient are not adversely handicapped or allowed to develop with hinderances to their capacity. The causes of failure resolve themselves into four factors:—

1. Inherent deficiency.
2. Failure of nutrition.
3. Failure of symbiotic balance.
4. Failure of adjustment with environment.

1. Inherent Deficiency.

The potential of an organic being and of the generations which will spring from him is fixed at the moment of his

conception and is conveyed and limited by the male and female elements which form the ovum from which he starts. What are the capacities of this potential we do not know. We know what it has produced in the past, but we cannot tell what it will produce in the future. We know that the vital potential varies considerably in individuals, for in some it is insufficient to ensure development. To what this is due and to what extent it operates we are nearly wholly ignorant, though we have abundant evidence that the products of conception frequently die, or fail to find an environment at which they can develop.

Sometimes the vitality of the ovum is sufficient to carry it through inter-uterine life, but the offspring fails when called upon to live an independent existence. In others, the vital spark is feeble and though it may carry on for a few years it fades before maturity is reached. In some, the stock is liable to abnormal or curtailed development, giving us the various forms of congenital defects or inherent weaknesses. Recent researches into heredity have shown us however that some of these inherent weaknesses can be eliminated by environment or will not be detrimental to the organism except in the presence of certain stresses. So though the elimination of hereditary taints and deficiencies is in the main a question of selective breeding, something can be done for the improvement of stock by environmental means and since in man the destruction of poor or defective individuals is not within the sphere of practical politics, it is worth knowing that by special care and attention, and sometimes by specific treatment, defective members of the community can have their prospects improved.

2. Failure from Nutrition.

The potential of life is imponderable, but the organism which carries it is not. The human ovum weighs about one five-thousandth of a grain, the adult human into which it may grow weighs one hundred and fifty pounds. The whole of this one hundred and fifty pounds less an imponderable element of the one five-thousandth of a grain is derived from food. It is therefore not surprising that nutrition is the chief of all environmental factors and in rearing efficient citizens, by far the most important matter is to see that they are properly fed throughout the whole course of their lives, and particularly during those periods of life when growth and development are most rapid. The first call of the child is to be fed and to be fed well, and if it is not fed well, everything else is a waste of effort. So the first work of the school medical department is to see to the feeding of school children. Now we shall be told straight away that this is not our business, that our work is to remedy the defects of school children, but would you ask a joiner to make you a cabinet and tell him that the material of which it is to be made is none of his concern ?

3. Failure of Symbiotic Balance.

Man lives his life in competition and co-operation with other organic beings, many of which live parasitically upon him. Whether he keeps his health or not in competition with these parasites depends upon his being able to maintain a correct physiological adjustment. A vast amount of research has been given to the study of parasitism and this has been brought together into the modern Theory of Epidemics which explains to us the process of the adjustment of man's physiology with the physiology of the parasites he harbours. This gives us a totally different view of so called infectious disease from that of our fathers and which is still current. About four-fifths of the diseases of children are connected more or less directly with parasitism so that school medicine cannot be approached without a sound knowledge of epidemiology. It is general in connection with school work to treat infectious disease as something apart from the normal life of the child with the idea that diseases like measles, scarlet fever, and pneumonia can be kept under in a way somewhat similar to what is feasible for the suppression of rats or fleas. There is a code with ritual, rubrics and vestments for incantation when diagnosable parasitic disease appears in schools, but in the light of modern knowledge, most of this savours more of pageantry than of preventive medicine. The control of parasitic disease in children entails something vastly more complicated and difficult for, with few exceptions, the actual infectious diseases to which names are attached are among the least serious events in the fight between man and his parasites.

4. Failure of Adjustment with Environment.

Adjustment to environment covers a whole multitude of processes from the influence of ill-fitting boots on the development of the stance, to the misery that results from faulty psychological training. Physical environment is easy to understand and comparatively easy to remedy. The simplest of all human troubles to remedy is lack of money, (though not everybody thinks so !) It is really because the remedy here is so obvious and so comparatively easy that man worries so much about it. The most difficult of environmental factors, both to understand and to remedy, is an unfavourable medium for psychological development. To this subject much attention has been given. We shall admit that there is a vast deal of nonsense talked about it, but we shall also insist that there has been much genuine critical study, observation, and philosophical deduction in connection with this most important matter. Here also is need of reorientation of current ideas. When the most prominent physiologist of the present day tells us that the universe is spiritual and that the material part of it which can be appreciated by our senses is merely a resultant, or as it were, a by-product, we are forced to open

our eyes to the extreme narrowness of our outlook upon biological phenomena. The change of physiologists from the materialistic to the metaphysical view of life has come about from the most materialistic conception capable of realization that has ever entered human consciousness, namely tissue culture. Second only to the attempt to make living robots by mechanical and chemical means, comes the conception of growing living tissue artificially. We cannot produce living beings from non-living material, but we can grow any amount and variety of living material from young living cells. Thus, from a part of the developing embryo of a chick, we can grow any number of chicken hearts and can keep these chicken hearts alive, so far as we know, for ever. There are at present thousands of chicken hearts growing artificially from a single chick embryo. Had the original embryo been allowed to develop naturally it would have produced one chicken which, in the course of a few months would have been eaten. From it we have got an apparently eternal and inexhaustible factory of chicken hearts. Nothing on the surface could appear more materialistic than this, but when we come to study the product, to investigate these living cells which we have grown artificially, we find that they possess properties which are not to be explained by physics and chemistry. They possess volition which gives them the power, within certain limits, of doing what they want to do in opposition to physical and chemical stresses. In other words, we have by direct physical experiment re-established volition as a primary, and perhaps THE primary, biological function. The application of this to the practice of preventive medicine would not be very obvious were it not that the psychologists have demonstrated its method of action in the complete organism and shown us that even in the relief of what appear to be purely physical or chemical departures, volition plays a part which can be utilised. We must not, of course, repudiate the physical side of disease, but we must realise that by physical means alone we can rarely do all that we wish to do and in many conditions can do extremely little.

DUNSTAN BREWER,
School Medical Officer.

March 1934.

APPENDIX I.

REPORT OF SCHOOL DENTAL SURGEON.

LADIES AND GENTLEMEN,

I have pleasure in presenting the Annual Report on Dental Inspection and Treatment for the year 1933.

12 Elementary Schools comprising 21 departments have been dentally inspected and it was found that 73.5% of the children require treatment.

2,968 children were referred for treatment and 3,207 attended the Clinic.

ELEMENTARY SCHOOLS.

6,050 appointments were made.

5,681 or 93.9% were kept.

2,610 teeth were extracted and 642 teeth were filled.

11,898 other operations, (including dressings, scalings and root treatments) were carried out.

5 Regulations were completed by means of regulation appliances.

The X-ray was used in many cases as a means of diagnosis. This is very valuable and will be used more still in future.

A Fibrous Epulis was removed from a boy aged 8 years.

The practice of seeing all children up to nine years of age, and following up those who accept treatment till they leave school, is being continued.

The dental nurse was present at practically all sessions. Her services are greatly appreciated by all.

Casuals (those having no appointments) are seen each morning between 11 and 12 o'clock.

INFANT WELFARE.

325 children were seen and treated, from the Infant Welfare centre, and 17 patients from the Ante-Natal Clinic were treated or given advice.

ROUTINE INSPECTIONS.

4,036 Children were inspected at the Schools.

958 ot 23.7% were found free from Caries.

110 or 2.72% were found to require no treatment.

2,968 or 73.5% were recommended for treatment.

3,207 Children attended the Clinic.

2,396 were rendered dentally fit.

5,681 attendances were made.

SECONDARY SCHOOLS.

Dental inspection was carried out at the three secondary schools. (The College, Euclid St., and the Commonweal).

818 pupils were examined.

410 or 50.1% were referred for treatment.

Treatment is being carried out for this group at present.

253 Pupils were treated at the Clinic, making 374 attendances.

106 teeth were extracted.

310 Permanent teeth were filled.

243 other operations (includes, crowns, sealings, dressings, and root treatments) were carried out.

An analysis of the result of the Dental Inspection and treatment will be found in the statistical tables for Higher Education.

Once again on behalf of the Dental Staff, I desire to thank all who in any way helped to contribute towards the carrying on of our work.

W. KENYON BERRIE, L.D.S., R.F.P.S.G.
School Dental Surgeon.

February, 1934.

APPENDIX II.

REPORT OF THE OPHTHALMIC SURGEON.

LADIES AND GENTLEMEN,

The School Eye Clinics have been held weekly throughout the School Year. As in former years I have had much valuable assistance from Dr. Logan.

Towards the end of the year the experiment was made of transferring the eye clinic from Farnsby Street to the Medical Officer's Headquarters at Eastcott Hill. This arrangement gives more comfort and privacy to the children and their parents and has the further advantage of bringing me in closer touch with the other departments of the School Medical Service.

Of recent years much attention has been paid to the development of myopia in school children, with a view to preventing it or at least limiting its natural tendency to increase. As a first step in this direction the Swindon School Medical Officers have been carrying out observations and tests during the Medical Inspections, to determine whether it is possible to predict the onset of short sight before it is actually manifest in defective vision.

Some years must elapse before any certain conclusions can be drawn, but already a comparison of their observations with the Eye Clinic records gives much encouragement to their hopes that it may be possible, by quite simple tests, to indicate those children who are likely to become short-sighted within two years.

Should this prove to be the case it will have to be considered whether any special care of these children's eyes is likely to be of value in checking the onset of this troublesome condition. We shall no doubt hear more of this work when sufficient time has elapsed to allow of definite conclusions.

I wish again to thank all those who have co-operated in the work of the School Eye Clinic.

O. B. PRATT,
M.A., M.B., M.R.C.S., L.R.C.P.,
Ophthalmic Surgeon.

March 11th, 1934.

APPENDIX III.

REPORT OF THE AURAL SPECIALIST.

LADIES AND GENTLEMEN,

There were nine sessions of the Special Aural Clinic during the year 1933. As is usual in a review of the whole year it is found that the number of patients suffering from disease of the ears alone forms a comparatively small part of the total. This also explains the large preponderance of nose and throat cases treated.

The work of the clinic proceeded well and I wish to thank all those that assist me for their courtesy and help.

F. COURTENAY MASON.
B.A., M.B., M.S., F.R.C.S.

7th March, 1934.

SUMMARY OF CASES SEEN AT THE SPECIAL AURAL CLINIC, 1933.

Number of Clinics held	9
Number of cases examined	89
Number of consultations at Clinic	97
Number of attendances at Clinic	97

Defects Discovered.

NOSE & THROAT—	
Adenoids only	4
Enlarged tonsils and adenoids	42
Enlarged tonsils only	6
Enlarged glands	30
Nasal catarrh and nasal obstruction	20
Deflected septum	24
Rhinorrhoea and Rhinitis	24
Inflamed turbinates	3
Hypertrophy of turbinates	3
Inferior turbinate hypertrophied posteriorly	1
Hypertrophy of mucosa	2
Tumour in nostril	1
Cleft palate	1
EAR—	
Otitis media	1
Deafness	5
Otorrhoea	7
Mastoid and examination of nasopharynx	1
Mastoid	1
Inflamed membranes	2
Thickened, scarred, perforated, indrawn and opaque membranes	21
Meatal ulceration	1
Meatal granulations	1
Wax in ears	1

Operations.

	Recommended	Performed	Awaiting operat'n	Refused	No report available
Tonsils & adenoids	48	39	8	1	....
Adenoids only	3	....	3	....	....
Sub-mucous resection	17	3	12	1	1
Mastoid	3	2	....	1	....
Reduction of turbinates	1	....	1	....	....
Excision of papilloma for histological examination	1	1	....	....	....
Others	2	1	1	....	....

APPENDIX IV.

PRELIMINARY NOTE ON THE USE OF A +1D LENS IN THE TESTING OF THE VISUAL ACUITY OF "INTERMEDIATES."

Dr. Dunstan Brewer was a member of the Departmental Committee appointed by the Board of Education to inquire into problems connected with Defective Vision in School Children, and after the publication of a report in 1931, he suggested the investigation which is the subject of this note. It appeared that simple hypermetropia was the commonest condition of refraction met with in school children, and that the incidence was greatest in infancy, and appeared to decrease steadily as the older age groups were reached. As a broad generalisation it would appear that during the first 15 years of life the refraction tends to pass from hypermetropia towards emmetropia and in some cases the change goes on until myopia or shortsightedness results. In the words of the report "it is clear, however from the cases quoted, that myopia of low degree is often the result of changes which occur to emmetropic or low hypermetropic eyes in young children" and "the implication is that emmetropia or low hypermetropia (*i.e.* hypermetropia of one or less dioptre) occurring in children under 12 must be looked upon with suspicion, as such cases may be incipient myopes."

The committee showed that of the age group 8-9 *i.e.*, children examined as 'intermediates,' 68.8% of the boys and 66.7% of the girls were simple hypermetropes. Dr. Brewer suggested that when 'intermediates' were inspected the visual acuity of the child when using a plus sphere of 1 dioptre, should be recorded in addition to the ordinary visual acuity.

This has been done and it is now possible to examine the findings. In the beginning the visual acuity of each eye tested separately with a +1D lens was recorded. This method has been retained by Dr. Violet King, but was early rejected by the writer as a considerable number of children shewed a diminution of visual acuity from 6/6 to 6/9 or 6/12 when examined in this way, and subsequent observation of these cases would have proved too great a tax on the time at one's disposal. The cases reported on here have been tested with a +1D lens in front of both eyes simultaneously. Of 470 intermediates examined during 1931, and 1932, 96 shewed a diminution of visual acuity to 6/9 or worse, and 10 some improvement. The remainder shewed no change, although the majority of children volunteered the statement that they 'saw better' without the glasses. These figures were obtained by a scrutiny of the records of children born in 1923

and 1924, and as they represent only a proportion of the children examined by this method the proportions can only be regarded as approximate.

Children who shewed a decrease in visual acuity by this method have been re-examined at subsequent 'defect' inspections, and wherever the real visual acuity has become less have been referred for refraction. It soon became apparent that where the +1D lenses caused a lowering of visual acuity to 6/9 and 6/12 that the normal visual acuity has been maintained during the period of observation. Where the visual acuity was reduced to 6/18 or less by this method cases have been observed where the actual visual acuity has diminished and have proved on refraction to shew slight degrees of myopia.

In Swindon practically 100% of children who have visual defects are treated by the school occulist and the following particulars have been extracted by scrutiny of the ophthalmic records. No claim for comprehensiveness is made.

In the following Table the refraction is given uncorrected; a refraction of +1.50 is regarded as emmetropic, anything above being hypermetropic and below myopic. Astigmatism is recorded by a fraction, the axis is not indicated.

Name	Sex	Date of Birth	Date of Inspection	Visual Acuity R	Visual Acuity L.	Visual Acuity with +1D	Date of Refraction	Refraction R	Refraction L
D.B.	F	15/5/23	5/5/31	6/6	6/6	6/12	12/9/31	+1.5	+1.5
D.T.	M	22/3/23	31/3/31	6/6	6/6	6/18	5/9/33	+1.25	+1.25
G.D.	M	28/4/23	20/10/31	6/6Pt	6/6Pt	6/18	7/3/33	−1.0	−1.0
R.B.	M	19/3/24	7/4/32	6/6	6/6	6/18Pt	1/2/33	−0.75	−0.75
D.S.	F	9/11/23	10/3/32	6/9	6/9	6/18	27/5/33	−0.75/−0.25	−0.75/−0.25
M.W.	F	23/1/23	3/2/33	6/6	6/6	6/36	28/3/33	O	O
B.E.	F	2/8/23	19/2/32	6/9	6/6	6/24	16/5/33	−0.5	−0.5
E.H.	F	28/3/23	13/4/31	6/9Pt	6/6Pt	6/24	28/9/31	+0.75	+0.25 +1.0/+0.75
J.C.	M	12/1/24	21/1/32	6/6	6/9	6/18	23/1/34	+0.75	+0.5
M.P.	F	18/1/24	19/2/32	6/6	6/6	6/9	1/12/31	+1.50	+1.75

If these observations are confirmed it would appear—

(1) That the majority of children of the 'intermediate' group are sufficiently hypermetropic to tolerate a +1D lens.

(2) That children who can read 6/12 or better with a +1D lens are not likely to become myopic within at least 2 years.

(3) That those children who read 6/18 or worse with +1D lens may become myopic.

It seems that this method applied to medical inspection would distinguish those children who may be expected to develop myopia and would benefit from regular examinations of their visual acuity.

J. STEVENSON LOGAN,
M.B., Ch.B., D.P.H.

MARCH 1934.

ELEMENTARY EDUCATION.

Statistical Tables.

TABLE I.—Return of Medical Inspections.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections:	
Entrants	848
Intermediates	979
Leavers	1077
TOTAL	2904
Number of other Routine Inspections	Nil

B.—OTHER INSPECTIONS.

Number of Special Inspections	2517
Number of Re-Inspections	7123
TOTAL	9640

TABLE II.—A.—Return of Defects found by Medical Inspection in the Year ended 31st December, 1933.

DEFECT OR DISEASE.	Routine Inspections. No. of Defects. Requiring treatment.	Routine Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring treatment.	Special Inspections. No. of Defects. Requiring treatment.	Special Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring treatment.
(1)	(2)	(3)	(4)	(5)
Malnutrition	4	10	33	—
Skin—				
Ringworm :				
Scalp	....	....	14	....
Body	4	....	15	....
Scabies	1	....	16	....
Impetigo	4	....	42	....
Other Diseases (Non-Tuberculous)	49	3	349	....
Eye—				
Blepharitis	48	2	25	....
Conjunctivitis	5	....	43	....
Keratitis	....	....	....	....
Corneal Opacities	....	....	1	....
Defective Vision (exclud. Squint)	221	....	43	5
Squint	24	5	12	1
Other Conditions	14	2	134	1
Ear—				
Defective Hearing	32	7	39	4
Otitis Media	23	3	111	32
Other Ear Diseases	58	5	228	39
Nose and Throat—				
Chronic Tonsillitis only	41	77	76	70
Adenoids only	9	5	12	4
Chronic Tonsillitis and Adenoids	6	10	64	1
Other Conditions	65	67	190	21
Enlarged Cervical Glands (Non-Tuberculous)	5	9	97	48
Enlarged Thyroid Gland	27	17	39	....
Defective Speech	3	5	....	....

TABLE II. A.—(Continued)

DEFECT OR DISEASE.	Routine Inspections — No. of Defects.		Special Inspections — 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)
Heart and Circulation—				
Heart Disease :				
Organic	1	....	18	1
Functional	3	26	4	6
Anaemia	7	5	3	1
Lungs—				
Bronchitis	4	2	3	....
Other Non-Tuberculous Diseases	7	12	23	4
Tuberculosis—				
Pulmonary :				
Definite	....	....	....	....
Suspected	....	....	2	....
Non-Pulmonary :				
Glands	....	1	1	....
Bones and Joints	....	2	....	....
Skin	....	....	....	....
Other Forms	....	....	....	....
Nervous System—				
Epilepsy	....	2	1	2
Chorea	1	3	5	2
Other Conditions	6	16	36	13
Deformities—				
Rickets	10	2	2	1
Spinal Curvature	4	14	5	4
Other Forms	8	20	16	2
Other Defects and Diseases	51	48	781	22

B. Number of INDIVIDUAL CHILDREN found at ROUTINE Medical Inspection to Require Treatment (Excluding Uncleanliness and Dental Diseases).

GROUP.	Number of Children.		Percentage of Children found to require treatment
	Inspected	Found to require treatment	
(1)	(2)	(3)	(4)
CODE GROUPS :			
Entrants	848	148	17.4
Intermediates	979	221	22.6
Leavers	1077	248	23.0
Total (Code Groups)	2904	617	21.2
Other Routine Inspections	....	....	....

TABLE III.

Return of all Exceptional Children in the Area.

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Children suffering from any combination of the following types of defect :—

Blindness (Not Partial Blindness).
Deafness (Not Partial Deafness).
Mental Defect.
Epilepsy.
Active Tuberculosis.
Crippling.
Heart Disease.

Number of children suffering from any combination of the above defects	4

BLIND CHILDREN.

A blind child is a child who is too blind to be able to read the ordinary school books used by children, and can only be appropriately taught in a school for blind children.

At Certified Schools for the Blind.	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
3	....	....	....	3

PARTIALLY BLIND CHILDREN.

Children who, though they cannot read ordinary school books or cannot read them without injury to their eyesight, have such power of vision that they can appropriately be taught in a school for the partially blind.

At Certified Schools for the Blind	At Certified Schools for the Partially Blind	At Public Elementary Schools	At other Institutions.	At no School or Institution	Total
....	....	2	1	....	3

DEAF CHILDREN

Children who are too deaf to be taught in a class of hearing children in an elementary school, and can only be appropriately taught in a school for the deaf.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total
2	1	....	....	3

TABLE III.—(Continued).

PARTIALLY DEAF CHILDREN.

Children who can appropriately be taught in a school for the partially deaf.

At Certified Schools for the Deaf.	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At Other Institutions	At no School or Institution	Total
....	....	1	....	....	1

MENTALLY DEFECTIVE CHILDREN.

FEEBLE-MINDED CHILDREN

Mentally Defective children are children who, not being imbecile and not being merely dull or backward, are incapable by reason of mental defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools but are not incapable by reason of that defect of receiving benefit from instruction in Special Schools for mentally defective children.

At Certified Schools for Mentally Defective Children	At Public Elementary Schools.	At other Institutions.	At no School or Institution	Total
20	9	....	4	33

EPILEPTIC CHILDREN.

CHILDREN SUFFERING FROM SEVERE EPILEPSY

Children who are epileptic within the meaning of the Act, *i.e.*, children who, not being idiots or imbeciles, are unfit by reason of severe epilepsy to attend the ordinary Public Elementary Schools.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions	At no School or Institution.	Total
....	....	....	....	....

PHYSICALLY DEFECTIVE CHILDREN.

Physically Defective children are children who, by reason of physical defect, are incapable of receiving proper benefit from the instruction in the ordinary Public Elementary Schools, but are not incapable by reason of that defect of receiving benefit from instruction in Special Schools for physically defective children.

TABLE III.—(Continued).

A. TUBERCULOUS CHILDREN

In this category are only cases diagnosed as tuberculous and requiring treatment for tuberculosis at a sanatorium, a dispensary, or elsewhere. Children suffering from crippling due to tuberculosis which is regarded as being no longer in need of treatment are recorded as crippled children, provided that the degree of crippling is such as to interfere materially with a child's normal mode of life. All other cases of tuberculosis regarded as being no longer in need of treatment are recorded as delicate children.

I. CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS.
(Including pleura and intra-thoracic glands)

At Certified Special Schools.	At Public Elementary Schools †	At other Institutions	At no School or Institution	Total
....	....	....	1	1

II.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS.

At Certified Special Schools	At Public Elementary Schools †	At other Institution	At no School or Institution	Total
2	....	....	2	4

† Tuberculous children who are, or may be, a source of infection to others are promptly excluded from Public Elementary Schools.

B. DELICATE CHILDREN.

Children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School.

At Certified Special Schools.	At Public Elementary Schools	At other Institutions.	At no School or Institution	Total
....	108	....	....	108

TABLE III.—(Continued).

C. CRIPPLED CHILDREN

Children (other than those diagnosed as tuberculous and in need of treatment for that disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life, *i.e.*, children who generally speaking are unable to take part, in any complete sense, in physical exercises or games or such activities of the School curriculum as gardening or forms of handwork usually engaged in by other children.

At Certified Special Schools.	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
3	10	....	3	16

D. CHILDREN WITH HEART DISEASE.

Children whose defect is so severe as to necessitate the provision of educational facilities other than those of the Public Elementary School.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions	At no School or Institution	Total
1	....	....	....	1

Number of Children Suffering from Multiple Defects.

Defect or Disease.	School (if any)	Boys	Girls
Epileptic and Mentally Defective	None	1	....
Blind, Infantile Paralysis, ? Imbecile	None	....	1
Organic Heart Disease and Severe Torticollis	Private	....	1
Blind and Epileptic	None	....	1
TOTAL	....	1	3

Statement of the number of Children notified during the Year ended 31st December, 1933, by the Local Education Authority to Local Mental Deficiency Authority.

Total Number of Children notified — 10.

ANALYSIS OF THE ABOVE TOTAL.

Diagnosis.	Boys.	Girls.
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School :		
(a) Idiots	....	4
(b) Imbeciles	1	....
(c) Others	....	1
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :		
(a) Moral defectives	....	....
(b) Others	1	3
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	....	....
3. Feeble-minded children notified under Article 3, *i.e.*, "special circumstances" cases	....	....
4. Children who in addition to being mentally defective were blind or deaf	....	....
Grand Total	2	8

TABLE IV.—Return of Defects Treated during the Year ended 31st December, 1933

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Group VI).

DISEASE OR DEFECT.	Number of Defects treated, or under treatment during year.		
	Under the Authority's Scheme.	Otherwise	Total.
Skin—			
Ringworm—Scalp	20	....	20
Ringworm—Body	15	....	15
Scabies	16	....	16
Impetigo	42	....	42
Other Skin Disease	187	....	187
Minor Eye Defects (External and other, but excluding cases falling in Group II).	183	....	183
Minor Nose, Throat & Ear Defects, &c.	117	....	117
Miscellaneous .... (e.g. Minor injuries, bruises, sores, chilblains, etc.)	787	9	796
TOTAL	1367	9	1376

TABLE IV.—(Continued).

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	No. of Defects dealt with			
	Under the Authority's Scheme.	Submitted to refraction by private practioner or at hospital apart from the Authority's Scheme.	Otherwise	Total.
Errors of Refraction (including Squint)	614	....	....	614
Other Defect or Disease of the Eyes .... (excluding those recorded in Group I).	53	....	....	53
TOTAL	667	....	....	667

Total number of children for whom spectacles were prescribed :

(*a*) Under the Authority's Scheme 453

(*b*) Otherwise .... —

Total number of children who obtained or received spectacles :

(*a*) Under the Authority's Scheme 403

(*b*) Otherwise .... —

Group III.—Treatment of Defects of Nose and Throat

NUMBER OF DEFECTS.

Received Operative Treatment.												Received other forms of Treatment.	Total number Treated.
Under the Authority's Scheme, in Clinic or Hospital for :				By Private Practitioner or Hospital apart from the Authority's Scheme				Total					
(1)				(2)				(3)				(4)	(5)
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
4	2	75	8	....	....	....	....	4	2	75	8	207	296

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other defects of the nose and throat.

TABLE IV.—Continued.

GROUP IV. — ORTHOPAEDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme			Otherwise			Total Number treated.
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	
Number of children treated.	4	....	76	....	....	....	76

TABLE IV.—(Continued)

Group V.—Dental Defects.

(1) Number of Children who were :—

(i) Inspected by the Dentist :

	Age		
Routine Age Groups	3	61	Total 4036
	4	214	
	5	460	
	6	477	
	7	438	
	8	437	
	9	418	
	10	366	
	11	351	
	12	354	
	13	317	
	14	132	
	15	11	

Specials	94	
GRAND TOTAL	4130	
(ii) Found to require treatment	2968	
(iii) Actually treated	3207	

(2)	Half days devoted to :	Inspection	40	Total	441
		Treatment	401		
(3)	Attendances made by children for treatment				5681
(4)	Fillings	Permanent teeth	620	Total	642
		Temporary teeth	22		
(5)	Extractions	Permanent teeth	346	Total	2610
		Temporary teeth	2264		
(6)	Administrations of general anesthetics for extractions				2
(7)	Other operations	Permanent teeth	1087	Total	11826
		Temporary teeth	10739		

TABLE IV—(Continued).

Group VI.—Uncleanliness and Verminous Conditions.

(i)	Average number of visits per school made during the year by the School Nurses	11
(ii)	Total number of examinations of children in the Schools by School Nurses	32259
(iii)	Number of individual children found unclean	1084
(iv)	Number of children cleansed under arrangements made by the Local Education Authority	625
(v)	Number of cases in which legal proceedings were taken :	
	(a) Under the Education Act, 1921	Nil
	(b) Under School Attendance Byelaws	Nil

TABLE V.—RETURN SHOWING DEFECTS TREATED AT MINOR AILMENT CLINIC. YEAR ENDED 31st DECEMBER, 1933.

Disease or Defect	No. of Defects treated under Authority's Scheme.			No. of Defects cured.	No. of Defects remaining under treatment.	No. of attendances at Clinic	No. of consultations.
	From previous year	New	Total				
Contagious Skin Diseases							
Impetigo	1	40	41	40	1	283	142
Scabies	....	16	16	16	....	64	58
Non-Contagious Skin :							
Eczema	....	5	5	3	2	91	52
Seborrhoea	....	2	2	2	....	2	2
Abscesses	....	6	6	6	....	37	31
Boils	....	28	28	28	....	130	96
Warts	....	27	27	23	4	209	69
Herpes	....	12	12	12	....	34	24
Acne	....	1	1	1	....	2	2
Urticaria	....	4	4	4	....	14	11
Psoriasis	....	1	1	1	....	1	1
Alopecia	1	1	2	2	....	2	2
Intertrigo	....	1	1	1	....	1	1
Other diseases	2	80	82	77	5	224	185
Ear, Nose and Throat Diseases :							
Glands	1	37	38	37	1	104	92
Rhinitis	....	6	6	6	....	9	8
Tonsillitis	....	16	16	16	....	38	36
Other Diseases	1	56	57	55	2	139	128
Wounds and Injuries :							
Grazes	....	77	77	77	....	292	169
Injuries	....	50	50	50	....	213	163
Bites and Stings	....	45	45	45	....	126	108
Burns, Scalds, Cuts,&c.	....	100	100	99	1	500	327
Septic Sores	1	126	127	125	2	805	479
Bruises and Sprains	....	52	52	52	....	175	145
Others	....	73	73	72	1	254	162
External Eye Diseases :							
Foreign Body	....	8	8	8	....	8	8
Stye	1	34	35	35	....	201	151
Blepharitis	....	23	23	21	2	242	154
Conjunctivitis	3	37	40	40	....	404	315
Corneal Ulcer	....	1	1	1	....	5	4
Corneal Opacity	....	1	1	1	....	64	36
Pink Eye	1	35	36	35	1	408	345
Other Diseases	....	39	39	38	1	145	125

TABLE V.—(Continued).

Disease or Defect	No. of Defects treated under Authority's Scheme.			No. of Defects cured.	No. of Defects remaining under treatment.	No. of attendances at Clinic	No. of consultations.
	From previous year	New	Total				
Infectious Diseases :							
Chicken Pox	....	16	16	16	....	23	21
Whooping Cough	....	11	11	11	....	17	17
Diphtheria	....	2	2	2	....	2	2
Mumps	....	21	21	21	....	37	36
Scarlet Fever	....	2	2	2	....	4	4
Croup	....	1	1	1	....	1	1
General :							
Ill-health, &c.	....	90	90	90	....	173	164
Totals	12	1183	1195	1172	23	5483	3876

Total number of children treated—915.

TABLE VI.—TREATMENT OF DEFECTS OF NOSE, THROAT AND EAR AT SPECIAL CLINIC.

No. of cases referred for treatment.	No. of Consultations.	No. of attendances for treatment.	DEFECTS.														
			Tonsils considerably enlarged.	Tonsils enlarged.	Tonsils and Adenoids	Adenoids	Tonsilitis.	Inflamed Turbinates	Cervical and other Glands	Nasal Spurs, Deflections & obstructions.	Nasal inflamati'n and discharge	Rhinorrhoea and Rhinitis	Cleft Palate	Nasal and Aural Polypi.	Myringitis Diseases and Perforation of Membranes	Mastoid	Discharging ears.
446	1497	1581	45	51	64	14	12	11	88	48	24	37	1	6	39	4	90

DEFECTS (Continued)								No. for whom operation for tonsils and adenoids was advised.	No. who received operative treatment for tonsils and adenoids	No. of other operations performed.	No. of cases cured.	No. of cases remaining under treatment or kept under observation	No. of cases for whom no report is available.
Foreign body in ear.	Inflamed Membranes	Thickened Scarred and Opaque Membranes	Indrawn Membranes	Deafness (Slight)	Deafness (Severe)	Wax in ears	Other Condi-						
2	17	28	77	39	1	41	84	103	81	12	259	183	4

TABLE VII. ELECTRICAL IONISATION.

Number of cases referred for treatment	Number of Consultations.	Number of attendances for treatment	Defect	Number of cases cured	Number of cases still under treatment or observation	Number of cases for whom no report is available
			Discharging ears.			
11	12	12	11	6	4	1

TABLE VIII. TREATMENT OF RINGWORM.

Number of cases			Number of consultations with Doctor	Number of attendances made by children at Clinic	Number of bacteriological examinations	Number of cases cured	Number of cases still under treatment		Number for which no report is available
Old	New	Total					Attending School	Not attending School	
6	29	35	89	159	15	32	3	....	....

TABLE IX. ELECTRICAL TREATMENT.

Number of cases					Number of attendances for treatment.	Disease or Defect		
Boys		Girls		Total		Infantile Paralysis	Paralysis Optic Nerve	Naevus
Old	New	Old	New					
9	....	6	6	21	221	9	2	10

TABLE X. SUMMARY OF SCHOOL ACCIDENTS WHICH OCCURRED DURING THE YEAR 1933.

(ELEMENTARY SCHOOL CHILDREN)

Number of cases			Total number of attendances made by children at Clinic.	Number of cases where treatment was completed at Clinic.	Number of X-ray exposures	Number of cases referred to Hospital or Private Practitioner for further treatment	Number of cases resulting in permanent disability.
Serious	Minor	Total					
....	145	145	466	136	13	9	....

NOTE.—Cases of simple fracture not resulting in permanent disability and cuts requiring stitching, however extensive, so long as no permanent injury but a good scar resulted, are included as minor injuries.

TABLE XI. SHOWING NUMBER OF CHILDREN DISCOVERED AT ROUTINE INSPECTION WITH ENLARGEMENT OF THE THYROID GLAND. YEAR 1933.

Group examined.	Number of children examined.			Number of children found with enlargement of the Thyroid Gland.		
	Boys	Girls	Total	Boys	Girls	Total
Entrants	433	415	848	2	4	6
Intermediates	451	528	979	7	13	20
Leavers	509	568	1077	23	46	69
TOTAL	1393	1511	2904	32	63	95

TABLE XII. TREATMENT OF ENLARGED THYROID AT SPECIAL CLINIC.

Number of cases			Number of attendances for treatment.	Number of consultations	Number of cases cured.	Number of cases still under observation and treatment.
Old	New	Total				
53	39	92	397	367	43	49

TABLE XIII BACTERIOLOGICAL AND OTHER EXAMINATIONS CARRIED OUT DURING THE YEAR 1933.

THROAT :	Swabs examined	34
PUS AND DISCHARGES :—		
	For Tubercle bacilli	4
	For other organisms (cultures)	23
HAIR :	Examinations for Ringworm fungus	15
BLOOD :	Histological examinations	147
SPUTUM :	For Tubercle bacilli	4
	For other organisms	3
URINE :	Chemical examinations	28
	Microscopical examinations	14
X-RAY :	Number of examinations	102
	Number of photographs taken	91

TABLE XIV. RETURN OF ELEMENTARY SCHOOL CHILDREN MEDICALLY EXAMINED AND FOUND TO BE FULLY EFFICIENT DURING THE YEARS 1925 to 1933.

Year.	Upper Departments					Infant Departments					Totals			
	Efficient		Defective		%	Efficient		Defective		%				
	Boys	Girls	Boys	Girls	Efficient	Boys	Girls	Boys	Girls	Efficient	Efficient	Defective	Total examined	% Efficient
1925	428	398	457	499	46	294	278	387	329	44	1398	1672	3070	45
1926	393	318	287	248	57	345	336	273	257	56	1392	1065	2457	57
1927	553	635	373	471	58	321	344	259	242	57	1853	1345	3198	58
1928	785	633	532	513	58	367	394	342	267	56	2179	1654	3833	57
1929	474	361	291	257	60	213	202	152	117	60	1250	817	2067	60
1930	687	633	297	299	69	367	407	212	224	64	2094	1032	3126	67
1931	579	459	243	295	66	363	257	165	145	65	1658	848	2506	66
1932	687	572	240	211	74	356	344	93	73	81	1959	617	2576	76
1933	696	726	252	325	71	328	367	117	93	77	2117	787	2904	73

HIGHER EDUCATION.

Statistical Tables.

HIGHER EDUCATION.

TABLE I.—NUMBER OF CHILDREN ATTENDING THE SWINDON SECONDARY SCHOOLS INSPECTED DURING THE YEAR ENDED 31st DECEMBER, 1933.

A.—ROUTINE MEDICAL INSPECTIONS.

	AGE GROUPS.										TOTAL
	11	12	13	14	15	16	17	18	19	20	
Boys	34	80	95	121	94	55	20	17	8	1	525
Girls	27	56	55	62	51	34	13	6	1	....	305
TOTALS	61	136	150	183	145	89	33	23	9	1	830

B.—OTHER INSPECTIONS.

Number of Special Inspections	194
Number of Re-inspections	553
	747

TABLE II.—A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1933.

Defect or Disease.	Routine Inspections		Special Inspections	
	Number of Defects		Number of Defects	
	Requiring treatment.	Requiring to be kept under observation but not requiring treatm't	Requiring treatment.	Requiring to be kept under observation but not requiring treatm't
Skin :				
Impetigo	....	....	....	....
Other Diseases, Acne, etc., (non-Tuberculous)	4	....	8	....
Eye :				
Conjunctivitis	2	4	....	....
Blepharitis	9	....	3	....
Defective vision	66	28	8	18
Squint	1	....	....	....
Other conditions	3	....	9	1
Ear :				
Defective Hearing	9	3	2	1
Otitis Media	3	1	3	....
Other Ear Diseases	4	3	7	....
Nose and Throat :				
Enlarged Tonsils only	6	5	....	2
Enlarged Tonsils & Adenoids	3	....	5	....
Other conditions	11	7	7	3
Glands :				
Enlarged, Cervical and Sub-max : (non-Tuberculous)	....	1	3	2
Enlarged Thyroid	38	2	....	....
Teeth :				
Dental Diseases	1	....	3	....
Heart and Circulation :				
Heart Disease—Functional	5	3	....	3
Lungs :				
Other Non-Tuberculous Diseases	....	....	1	....
Nervous System :				
Chorea	....	1	....	....
Over-strain	21	22	....	....
Other conditions	3	5	4	....
Deformities :				
Spinal Curvature	30	....	2	....
Other Forms	33	5	13	1
Other Defects or Diseases :	24	9	71	5

TABLE III. SUMMARY OF ACCIDENTS WHICH OCCURRED TO SECONDARY SCHOOL CHILDREN DURING THE YEAR ENDED 31st DECEMBER, 1933.

Number of Cases.			Total number of attendances made by children at Clinic.	Number of cases where treatment was completed at Clinic.	Number of X-ray exposures	Number of cases referred to Hospital or Private Practitioner for further treatment	Number of cases resulting in permanent disability.
Serious	Minor	Total					
....	44	44	123	43	11	1	....

NOTE.—Cases of simple fracture not resulting in permanent disability and cuts requiring stitching, however extensive, so long as no permanent injury but a good scar resulted, are included as minor injuries.

TABLE IV.—RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1933.

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness)

DISEASE OR DEFECT.	Number of Defects treated or under treatment during the year.		
	Under the Authority's Scheme	Otherwise	Total
Skin—			
Other Skin Disease	5	....	5
Minor Eye Defects	10	....	10
Minor Ear Defects	1	....	1
Miscellaneous .... (e.g., minor injuries, bruises, sores, etc.)	71	1	72
TOTAL	87	1	88

TABLE IV.—(Continued).

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	No. of Defects dealt with			
	Under the Authority's Scheme.	Submitted to refraction by private practioner or at hospital apart from the Authority's Scheme.	Otherwise	Total.
Errors of Refraction (including Squint)	143	....	....	143
Other Defect or Disease of the Eyes .... (excluding those recorded in Group I).	5	....	....	5
TOTAL	148	....	....	148

Total number of children for whom spectacles were prescribed :

(*a*) Under the Authority's Scheme 86

(*b*) Otherwise .... —

Total number of children who obtained or received spectacles :

(*a*) Under the Authority's Scheme 83

(*b*) Otherwise .... —

Group III.—Treatment of Defects of Nose and Throat

NUMBER OF DEFECTS.

Received Operative Treatment.												Received other forms of Treatment.	Total number Treated.
Under the Authority's Scheme, in Clinic or Hospital for :				By Private Practitioner or Hospital apart from the Authority's Scheme				Total					
(1)				(2)				(3)				(4)	(5)
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
....	....	1	....	....	....	....	....	....	....	1	....	8	9

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other defects of the nose and throat.

TABLE IV.—Continued.

GROUP IV. — ORTHOPAEDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme			Otherwise			Total Number treated.
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	
Number of children treated.	....	....	11	....	....	....	11

TABLE IV.—(Continued)

Group V.—Dental Defects.

(1) Number of Children who were :—

(i) Inspected by the Dentist :

	Age		
Routine Age Groups	10	4	Total 818
	11	88	
	12	137	
	13	179	
	14	149	
	15	136	
	16	67	
	17	37	
	18	18	
	19	2	
	20	1	

Specials	—
GRAND TOTAL	818

(ii) Found to require treatment 410

(iii) Actually treated 253

(2) Half days devoted to : Inspection 9, Treatment 92 — Total 101

(3) Attendances made by children for treatment 374

(4) Fillings — Permanent teeth 310, Temporary teeth — — Total 310

(5) Extractions — Permanent teeth 60, Temporary teeth 46 — Total 106

(6) Administrations of general anesthetics for extractions —

(7) Other operations — Permanent teeth 192, Temporary teeth 10 — Total 202

TABLE IV.—Continued.

GROUP V. CONDITION OF TEETH OF SCHOLARS DENTALLY INSPECTED AT THE SECONDARY SCHOOLS DURING THE YEAR ENDED 31st DECMEBER, 1933.

THE COLLEGE SECONDARY SCHOOL.

BOYS

Year of Birth	Number of carious teeth					Number free from caries.	Total number examined
	1	2	3	4	5		
1913	1	....	....	....	....	....	1
1914	....	1	....	1	....	....	2
1915	5	....	....	1	....	3	9
1916	5	....	1	....	....	10	16
1917	2	5	1	....	....	7	15
1918	9	7	....	1	....	15	32
1919	9	2	....	....	....	17	28
1920	16	3	2	....	1	19	41
1921	7	2	1	....	....	5	15
1922	6	3	2	1	1	8	21
1923	....	1	....	....	....	1	2
TOTALS	60	24	7	4	2	85	182

GIRLS

Year of Birth	Number of carious teeth.					Number free from caries	Total number examined
	1	2	3	4	5		
1915	....	....	....	....	....	4	4
1916	2	....	....	....	....	4	6
1917	2	....	....	....	....	7	9
1918	2	1	1	....	....	13	17
1919	8	4	....	....	....	11	23
1920	8	1	2	....	....	9	20
1921	4	4	....	....	1	6	15
1922	4	4	1	2	....	5	16
1923	....	....	1	....	....	....	1
TOTALS	30	14	5	2	1	59	111

EUCLID STREET SECONDARY SCHOOL.

BOYS

Year of Birth	Number of carious teeth					Number free from caries	Total number examined
	1	2	3	4	5		
1916	....	....	....	....	....	1	1
1917	1	3	....	1	....	4	9
1918	8	3	....	2	....	17	30
1919	13	4	3	1	....	18	39
1920	9	7	1	....	....	18	35
1921	7	6	1	1	1	22	38
1922	2	1	1	....	....	9	13
TOTALS	40	24	6	5	1	89	165

TABLE IV. (Continued).

GROUP V. (Continued).

EUCLID STREET SECONDARY SCHOOL.

GIRLS.

Year of Birth	Number of carious teeth				Number free from caries	Total number examined
	1	2	3	4		
1916	....	....	....	....	1	1
1917	2	....	....	....	5	7
1918	3	....	2	1	5	11
1919	4	4	....	1	6	15
1920	4	1	....	....	8	13
1921	4	4	2	....	8	18
1922	1	2	....	2	2	7
TOTALS	18	11	4	4	35	72

THE COMMONWEAL SECONDARY SCHOOL

BOYS

Year of Birth	Number of carious teeth						Number free from caries.	Total number examined
	1	2	3	4	5	6		
1915	2	2	....	....	....	....	....	4
1916	1	2	1	....	....	....	1	5
1917	7	3	....	....	....	....	8	18
1918	10	2	....	....	1	1	18	32
1919	2	2	....	....	....	....	27	31
1920	16	8	2	....	....	....	18	44
1921	10	2	2	2	1	....	11	28
1922	6	4	2	1	....	1	2	16
TOTALS	54	25	7	3	2	2	85	178

GIRLS

Year of Birth	Number of carious teeth				Number free from caries	Total number examined
	1	2	3	4		
1915	....	....	....	....	1	1
1916	3	1	....	....	4	8
1917	2	....	....	....	7	9
1918	1	....	....	....	13	14
1919	5	2	1	....	5	13
1920	11	3	1	2	9	26
1921	7	3	3	....	11	24
1922	9	1	....	....	4	14
1923	....	....	....	....	1	1
TOTALS	38	10	5	2	55	110

TABLE IV. (Continued).

GROUP V. (Continued). SUMMARY OF RESULTS OF DENTAL INSPECTION AT THE SECONDARY SCHOOLS, YEAR 1933.

Secondary School.	Entrants		Re-Inspections		Total Number Inspected	Total Number referred for treatment	Number free from caries
	Number Inspected	Number referred for treatment	Number Inspected	Number referred for treatment			
The College	75	45	218	104	293	149	144
Euclid Street	66	32	171	81	237	113	124
The Commonweal	56	43	232	105	288	148	140
Totals	197	120	621	290	818	410	408

Percentage of Entrants requiring treatment 60.9
Percentage of children Re-inspected requiring treatment 46.7
Percentage of Total number of children inspected requiring treatment 50.1

TABLE V. TREATMENT OF ENLARGED THYROID AT SPECIAL CLINIC.

Number of cases			Number of attendances for treatment	Number of consultations	Number of cases cured	Number of cases still under observation and treatment
Old	New	Total				
38	15	53	142	136	31	22

TABLE VI. BACTERIOLOGICAL AND OTHER EXAMINATIONS CARRIED OUT DURING THE YEAR ENDED 31st DECEMBER 1933.

Number of Blood examinations—Histological	8
Number of X-ray examinations	13

Borough of Swindon.

Annual Report

OF THE

Medical Officer of Health

FOR THE YEAR 1933.

AND THE

Isolation Hospital Annual Report

From the 1st April, 1933, to the 31st March, 1934,

by DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.

Report of the Chief Sanitary Inspector

FOR THE YEAR 1933.

SWINDON.
JOHN DREW (PRINTERS) LTD.,
51, BRIDGE STREET.

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,, G. H. HUNT
,, R. GEORGE
,, A. H. WHEELER
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,, T. MANNING
,, M. ASHBY
Councillor A. THOMPSON
,, F. E. AKERS
,, C. C. PRICE
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,, S. E. WALTERS
,, A. H. JAMES
,, F. E. ALLEN

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Chairman—Councillor Mrs. S. ANDREWS

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Mrs. SCHMITZ
Miss I. F. MOORE
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Town Clerk—W. H. BENTLEY, ESQ.

BOROUGH OF SWINDON.

PUBLIC HEALTH DEPARTMENT.

STAFF.

Medical Officer of Health, School Medical Officer and Medical Superintendent of the Isolation Hospital and Maternity Home.

DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.

Deputy Medical Officer of Health.

J. STEVENSON LOGAN, M.B., Ch.B., D.P.H.

Assistant Medical Officer of Health.

VIOLET KING, M.B., Ch.B.

Chief Sanitary Inspector.

F. H. BEAVIS.
Certificate of the Royal Sanitary Institute.
Certificate of the Royal Sanitary Institute for Meat Inspection.
Certificate in Building Construction.

Assistant Sanitary Inspectors.

H. A. BANWELL.
Certificate of the Royal Sanitary Institute.
Certificate of the Royal Sanitary Institute for Meat Inspection.
Certificate of the Worshipful Company of Plumbers and Final Certificate City and Guilds.
Certificate in Hygiene.

R. N. HUGHES.
Certificate of the Royal Sanitary Institute and Sanitary Inspectors Examination Joint Board.
Certificate of the Royal Sanitary Institute for Meat Inspection.
Liverpool University Certificate in Meat and Food Inspection.
Liverpool University Certificate in Sanitary Science.

F. R. G. SELWOOD.
Certificate of the Royal Sanitary Institute.

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Assistant Clerks—W. M. WATTS.
W. H. PAUL.
F. YATES.

Assistant Clerk and Clinical Assistant—Miss E. M. KEY.

Matron of the Isolation Hospital.

Miss J. MCKINNON SMITH, A.R.R.C.

Matron of the Maternity Home and Training Centre.

Miss F. R. SILLICK.

PUBLIC HEALTH DEPARTMENT. **STAFF**—*Continued.*

Health Visitors.

Miss M. HANNA

3 years General Training.
State Registered Nurse.
Certificate of the Central Midwives Board.

Miss M. JOHNS
(Retired on 31-10-33)

3 years Certificate of Hospital Training.
State Registered Nurse.
Certificate of the Central Midwives Board.
Queen's Nurse.

Miss M. HUGHES.

4 years Certificate of Hospital Training.
State Registered Nurse.
Certificate of the Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.

Miss O. MARKER
(Commenced 6-9-33).

4 years Certificate of Hospital Training.
State Registered Nurse.
Certificate of the Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.

Disinfector—G. GREENAWAY.

Voluntary Helpers at Maternity Centres.—

Mrs. E. SCHMITZ
Mrs. OSMOND
Mrs. WESTON
Mrs. HUMPHRIES
Mrs. HULANCE

LIST OF CONSULTANT & SPECIALIST STAFF.

MATERNITY DEPARTMENT.

Obstetricians on the Rota :

A. W. Bennett, M.R.C.S. (Eng.), L.R.C.P. (Lond.).

J. Holland, M.B., B.Ch., B.A.O.R.U.I.

S. J. C. Mackay, M.B., Ch.B.

W. Glasgow, M.B., Ch.B.

Honorary Consulting Physician :

T. P. Berry, M.D. (Lond.), M.R.C.S., L.R.C.P.

Consulting Surgeon :

J. Ewart Schofield, F.R.C.S. (Eng.), M.B., Ch.B.

Consulting Obstetrician :

A. W. Bennett, M.R.C.S. (Eng.), L.R.C.P. (Lond.)

Ophthalmic Surgeon :

Oliver B. Pratt, M.A., M.B., B.Ch., D.O. (Oxon), M.R.C.S L.R.C.P.

Surgeon for Throat, Nose and Ear Diseases :

F. Courtenay Mason, B.A. (Lond.), M.S., M.B., B.S., F.R.C.S (Eng.)

Orthopaedic Surgeon :

M. F. Forrester Brown, M.D. (Lond.) M.S.

Cardiologist :

C. E. K. Herepath, M.D. (Lond.), M.B., B.S., M.R.C.S., L.R.C.P. (Lond.)

Honorary Consultant for Nervous and Mental Diseases :

Sydney J. Cole, M.A. (Oxon), B.A., M.D., M.B., Ch.B.

To the Chairman and Members of the Health, etc., Committee.

LADIES AND GENTLEMEN.

The year 1933 was favourable for the health of the inhabitants of Swindon.

The meteorological record of the year was unusual for the amount of bright sunshine, the continued warmth and especially for the deficient rainfall in the late autumn. This last might have been exceedingly awkward for Swindon, and may be so still, but as supplies of water from the new works at Latton were available in the later months of the year, there was no uneasiness during 1933. Had the Latton water not been available, water shortage towards the end of the year would have been serious.

In times gone by, hot dry years were unfavourable to the public health, because it was in such years that infantile diarrhoea and the typhoids were most prevalent and fatal, but the diseases of this class are now almost extinct in England, and where the sanitary service is trustworthy and the water supply beyond suspicion, they have ceased to affect, though they continue to be menaces to, the public health.

The continued fall in the birth rate, which, in the latter part of 1933 became almost a collapse, must in the near future have a great influence upon all the social functions of the Borough, for the birth rate in Swindon is now scarcely half what is necessary to support the population at its present level.

1933 had a comparatively low mortality, though this was slightly higher than in some recent years, and it was a year which was exceptionally favourable for survival. It is not a guess, nor a prophecy, but a mathematical deduction that the death rate must rise with accelerating rapidity during the next fifty years, unless the average expectation of life is increased beyond what there is any justification for believing to be possible, or the birth rate accelerates, of which there is not the slightest sign. The fall in births is not accompanied by any fall in the neo-natal mortality and as no further reduction of any magnitude in the late infantile mortality is possible, the natural supply of citizens is steadily shortening. There is an increase rather than a diminution of children born with congenital defects and the death rates amongst school children and adolescents seem to have touched low level. We must, therefore, be prepared to face a world which is steadily shrinking and in which the average age of its citizens is increasing so rapidly, that soon nearly half the population will be superannuated. One immediate result of the fall in the birth rate

is the increasing numbers of families with one or two children. This is bringing problems of its own. It is making the housing situation, always difficult, more complicated than ever and it is causing a rapid increase in the proportion of citizens who are psychologically maladjusted.

Preventive medicine has done much and will do more to rid mankind of those physical diseases which result from parasitic action and from errors or deficiencies of nutrition. Our fathers held that if the world could be freed from the diseases caused by unfavourable physical environment, we should see the Golden Age—generally depicted allegorically by half-nude girls, American apples, clouds of cotton wool and fragments of Greek architecture of debased style. The Victorians were quite certain that the future would see the end of physical disease and we are by no means sure that they were not right, but we are no longer under the delusion that the elimination of physical disease will see the end of sickness, for as the infections and degenerations recede, the neuroses increase. This is perhaps but a passing phase and the attention which is now given to psychological medicine may eventually deliver a system of mental hygiene which will do for mental maladjustment what sanitation and epidemiology have done for physical stress. We cannot pursue this subject without entering upon political and economic discussions which are outside our province, but this we may say: the main element in public health has now definitely shifted from doing things, or getting things done, to teaching the people how to live healthily. This does not make public health work less onerous, for it is always easier to do things for others than to get others to do them for themselves and of all forms of medical treatment that which is most difficult to get dispensed is a healthy regime. People to-day have no objection to operations, they will swallow with avidity anything they can get which promises to perform miracles, they will undergo all forms of contortions, physical strains, curtailments of liberty, and other unpleasantnesses, but they will not obey the simple rules of physical and mental health which are more important for the prevention and cure of sickness than all extraneous measures put together. Perhaps in course of time, by continuously plugging at it, we may be able to educate the people to take care of themselves and particularly to educate their children in the way of health and not of disease, for our greatest trouble is that children, almost from their birth, are brought up to expect ill-health rather than good health and to seek in sickness the relief of their emotional stresses.

We are not sanguine for the immediate future, for the belief in 'remedies', from patent pills to the most complicated contraptions, is as strong as it ever was, and more evil, for it has become more

dangerous. In the past, relief was sought by agents which were themselves harmless, but to-day some of those in common use are destructive. The use of hypnotics, anaesthetics, anodynes and other chemicals which meddle with consciousness and produce temporary relief by abolishing the capacity to feel, damning alike the spirit, the mind and the body, producing as much wreckage as does disease itself, is increasing rapidly and, unfortunately, is fostered by many whose influence is powerful and might be for good instead of for evil. That in this there is much chicanery and devilry is doubtless true, but more still is it attributable to the neglect of philosophy which is so characteristic of the present century.

But for a future somewhat more remote, we have high hopes. For when purified of the accumulation of dross, of sophistry, fraud, imbecility and commercialism which at present stifles it, there is a great harvest of physiological knowledge already gathered and more is delivered daily, much of which is pure and wholesome grain. With such material at his command, trained so that he can utilize it and estimate the value of what he uses, the physician of the future should be able to steer the population free from most of the diseases from which we suffer and restore to health those in whom indiscretions or misfortunes have upset the physiological balance.

Of the cure of disease which has progressed to permanent alteration of structure we have no great hopes, though surgery, by the removal of diseased or disorganised structures, will always be able to extend the lives of the somewhat damaged remains. The acute diseases, the infections, will probably yield to improved physiological management and the neuroses and psychological maladjustments will in great part disappear when man recognises the method of their causation, and the public mind is re-orientated to see disease in its true light. Whether we shall do anything with eugenics to improve the stock and eliminate those defects which are mainly hereditary remains to be seen. Most certainly we shall do little whilst we remain at cross purposes. But this may pass if our chief centres of learning cease degenerating into technical schools and return to the teaching of metaphysics, so that our leaders in politics, sociology, religion and humanity will be taught to think and to jettison the gross materialism which renders their efforts barren and contemptible.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Miss Mary Johns, Health Visitor, retired owing to ill-health on 31-10-33. She had been in the service of the Maternity and Child Welfare Department since 1919 and by her energy and humanity had done much to place Swindon Infant Welfare on a satisfactory basis. When reviewing the history of the development of Public Health work it is well to pause occasionally to

revisualise the difficulties of the past and the way they have been overcome, and it will then be found that the permanent overcoming of what at first seemed to be insuperable difficulties generally comes about through the personality of those who first attempt it. In every local history there will be certain outstanding names that should be remembered and in the history of Swindon the name of Nurse Johns is amongst them.

GENERAL PUBLIC HEALTH AND SANITATION OF THE TOWN.

With the exception of the progress made with the new waterworks at Latton, there was no alteration in the general sanitation of the town in 1933 which calls for comment. In any circumstances the establishment of the new water supply from Latton would be a matter of importance, but in view of the water situation ruling last year and continuing, Latton water is of outstanding consequence. The situation in Swindon is one which, from the first, offered a problem to supply the town with a good and abundant water supply. The first attempt at a civilized supply was from Wroughton. Here there is a small supply available of water which, for public health purposes, may be considered as a somewhat glorified shallow well water. It is never organically perfect and sometimes, particularly when a wet period follows a drought, is moderately contaminated. It requires a good deal of supervision, but with chlorination it is always safe. At present, Wroughton supply is a useful stand-by and though it is the least good and the least useful water supply of the town, it would be highly injudicious to abandon it. The second source of supply is from Ogbourne. This is obtained from a deep well sunk into the lower chalk, where the two branches of the English chalk formation come together to form an elbow. This water is of a high and constant purity, in fact it is invariably sterile. Unfortunately it is very hard. The supply from Ogbourne is fairly abundant and for many years was quite sufficient for the needs of the town. In very dry years the level of the water shrunk rather ominously and for about ten years it has been quite obvious that, excellent as is the supply, it was not sufficient for the growing needs of the town and so for a good number of years Swindon had been looking about for an increased supply. An attempt was made to augment the Ogbourne supply from Poughcombe, which is adjacent. Though this gave us a little more water, it is obvious that it could not give very much extra because it tapped the same reservoir.

About four years ago the Waterworks Committee explored further sources of water supply and two possibilities seemed worthy of exploration. The first was from the Kennet and the second was from Latton. The Kennet scheme was abandoned owing to various difficulties. The Latton scheme was an idea which had originated many years ago, but it was only actively pursued in 1929 and the work was started in 1931.

Towards the end of 1933 the water from Latton became available for the town and it is extremely fortunate that it did so. The waterworks at Latton are eleven miles away from the town and the water is obtained from a deep well sunk through the cornbrash, Oxford clay, Thames gravels and lias into the oolite. Water is pumped into a reservoir at Blunsdon and thence conveyed by gravity through mains to the town. The supply here is exceedingly abundant and does not appear to have been affected by the continued drought. It is typical oolite water, practically sterile and with a negligible organic content. Unfortunately it is only slightly less hard than the Ogbourne supply, as the following analyses will show :—

LATTON WATER.	Parts per 100,000	OGBOURNE WATER.	Parts per 100,000
Free Ammonia	.0168	Free Ammonia	.0016
Albuminoid Ammonia	.0008	Albuminoid Ammonia	.0026
Oxygen abstracted from potassium permanganate acting 3 hrs. at 80°F	Nil	Oxygen abstracted from potassium permanganate acting 3 hrs. at 80°F	.014
Total solid matter in solution	40.2	Total solid matter in solution	42.3
Nitrogen as nitrites	Absent	Nitrogen as nitrites	Absent
Nitrogen as nitrates	Absent	Nitrogen as nitrates	.16
Lead & copper	Absent	Lead & copper	Absent
Oxide of iron	Trace	Iron	Absent
Chlorine in chlorides	3.1	Chlorine in chlorides	.9
Alkalinity expressed as chalk	25.4	Alkalinity expressed as chalk	29.0
Hardness, temporary	14.9 deg.	Hardness, temporary	17.8 deg.
,, permanent	2.0 ,,	,, permanent	5.0 ,,
,, total	16.9 ,,	,, total	22.8 ,,
Clearness	Clear	Clearness	Clear
Colour	Colourless	Colour	Colourless
Odour	Odourless	Odour	Odourless
		Free chlorine	Absent
Micro-organisms growing on nutrient gelatine	4 per cubic centimetre	Micro-organisms growing on nutrient gelatine	17 per cubic centimetre
Micro-organisms growing on nutrient agar at blood heat	1 ,, ,, ,,	Micro-organisms growing on nutrient agar at blood heat	3 ,, ,, ,,
Organisms of the Coli group	Absent in 100 c.c.	Organisms of the Coli group	Absent in 100 c.c.

The Latton supply is a typical oolite water with comparatively high free ammonia, negligible albuminoid ammonia, absence of nitrates, comparatively high chlorine content and a trace of iron.

Some little trouble, or rather annoyance, occurred in 1933 owing to iron in the Latton water. Oolitic waters always contain a trace of iron, which is generally negligible. In most cases in which turbidity and astringency due to iron were the subject of complaint, the iron had been derived from water fittings, which is to be expected in a new plant, but it is possible in some cases that there was excess of iron from actual pockets in the oolite. This is not uncommon when the oolite is first tapped and is possibly due to small reservoirs which have been undisturbed for centuries. It may be that in these cases the excess of iron is derived from the fossil remains of the great reptiles which lived in the oolitic age, so that those citizens of Swindon who were troubled with excess of iron in their water supply may console themselves, or may entertain themselves, with the belief that they were eating dinosaurs. If that gives them no satisfaction, they will be more pleased to hear that excess of iron from this source is purely temporary and will not trouble them again.

Below we give an analysis of one water of which complaint was made.

	Parts per 100,000
Free Ammonia	Absent.
Albuminoid Ammonia	Absent.
Oxygen abstracted from potassium permanganate acting 3 hrs. at 80°F.	Nil.
Total solid matter in solution	37.7
Nitrogen as nitrites	Absent.
Nitrogen as nitrates	Absent.
Iron	.5
Lead and copper	Absent.
Chlorine in chlorides	3.3
Alkalinity expressed as chalk	24.7
Hardness, temporary	14.5 degrees
,, permanent	2.0 ,,
,, total	16.5 ,,
Clearness	Trace of turbidity
Colour	Brownish grey tinge
Odour	Odourless
Micro-organisms growing on nutrient gelatine	Nil.
Micro-organisms growing on nutrient agar at blood heat	Nil.
Organisms of the Coli group	Absent in 100c.c.

During 1933 Swindon had no shortage of water of any kind and no restrictions had to be put upon its use. Had the Latton supply not been available at the end of the year we should have been in great difficulty and certainly should not have got through the year without very severe restrictions having to be placed on the use of water. At the time of writing there has been practically no rainfall in England for over a year and the Latton supply shows no sign of diminution.

HOUSING.

During the year 314 new houses were erected in the Borough, 172 by the local authority and 142 by private enterprise. No houses were demolished or closed. The 314 new houses should afford accommodation to 1,570, but as the population of Swindon, according to the Registrar General, is diminishing, this accommodation is, in theory, available for the relief of overcrowding and the re-housing of families at present housed in unsatisfactory premises. In theory this extra accommodation is more than ample for this purpose.

The Registrar General's figure for the population in 1933 is 61,390. This is 1,000 less than the figure for 1931, so that at present Swindon needs 250 fewer houses than it did in 1931, or, put in another way, there are now 250 houses, apart from those that have been built during the last two years, available for the relief of overcrowding.

At the end of 1933 there were 16,226 inhabited houses and 259 voids, giving 16,485 houses to accommodate 61,390 people, or 3.73 persons per house. The houses available are, therefore, more than ample to house the population in complete comfort, but this, of course, does not mean that the housing troubles of the town are solved, for the population is not distributed amongst the houses solely in reference to need of space.

There are in the town 11 houses only which are at present, or will in the course of a year or two, become unfit for habitation, housing a total of 57 persons. 3 of these housing 22 persons will be demolished in 1934, 3 housing 19 persons will be demolished in 1935, 4 housing 12 persons will be demolished in 1937 and 1 housing 4 persons will be demolished in 1938. There will then be an interregnum in which, so far as can be seen, no houses will become fit for demolition.

The following memorandum was presented by the Medical Officer of Health to the Health, etc. Committee in June, 1933,

and gives a general view of the Medical Officer of Health of the housing position in Swindon at the present time :—

" HOUSING ACT, 1930 ; PART I. CIRCULAR NO. 1331 FROM THE MINISTRY OF HEALTH.

This circular deals with slum clearance and, therefore, somewhat unfortunately, does not affect Swindon at the present time, for in this town there are no slums, nor any part which by any possibility can be dealt with as a slum ; nor have we any part of the town which can be dealt with conveniently as a clearance area, so that the only work that the Swindon Corporation can carry out under the the Housing Acts is the building of new houses when such are required to take up surplus population and to build new houses to accommodate tenants who must be displaced by the demolition of old properties.

The following points require consideration :— The density of Swindon in persons per house and in persons per room is low and the Registrar General has given us a population figure which shows a decrease upon that of last year.

From these we must assume that, taken as a whole, the town is not overcrowded and there is a reasonable margin of accommodation to accept any probable increase of population which improved prosperity, or establishment of new industries, is likely to call for within the next half decade. There is, therefore, in my opinion, no call to increase the number of houses within the Borough.

The number of houses within the Borough which for public health purposes we can consider as unfit for habitation and, therefore, ripe for demolition, is, at the present moment, zero, but there are several blocks of property which are gradually deteriorating and which, in the course of time, will become ripe for destruction. The rate at which such improvements can be effected must rest dependent upon economic circumstances, unless the properties sink into such bad state of repair that they become a menace to the public health. May I call your attention to the remarks on housing that I have made in the annual report for last year, wherein I have expressed my opinion upon this difficult problem as it affects us locally ?

Though it can be stated emphatically that the town of Swindon is not overcrowded and that there is sufficient accommodation to house the whole population in circumstances which fulfil all the requirements of health, it still remains

true that there is a certain amount of overcrowding in Swindon and a considerable number of families lodged unsatisfactorily. The causes of this are not far to seek and, indeed, resolve themselves into one single proposition, *i.e.*, the impossibility in present economic circumstances of a large proportion of the population to pay what is required for reasonably good accommodation. The closest attention has been paid to this problem in recent years, more particularly by the local medical officers of health, who are in a favourable position to get details and to explore family budgets. The principle which guides us is now clearly defined. The first essential of environment is nutrition, and before anything else is considered, food, sufficient in quantity and quality to support the family at the full energy rate, must be supplied. The cost of this at prices ruling at present is now known generally and is being worked out locally, for owing to differences in prices and in habits in different towns the figure is not the same everywhere. The maximum figure in England is 7/- per week per man unit. The figure for Stockton-on-Tees, worked out with great accuracy, is 5/2. For Swindon it has not yet been worked out in detail, but will be somewhere in the neighbourhood of 6/1. A family consisting of a man in work, his wife, one child between 14 and 16, one child about 10 and an infant, represents $3\frac{3}{4}$ man units and requires £1-2-9 per week to supply an adequate dietary. This is the cost of food alone, but it includes the cost of fuel necessary to cook the food. It has been found in our investigations that adequate money for food is frequently not forthcoming and that where reduction of expenditure has to be made, the saving is generally upon that money required for the purchasing of food.

By far the largest item in the family budget after food, and in many cases before it, is rent. In fact, in working out the budgets of large working class districts in London and the provincial towns it was found that rarely was less than 25% and frequently was more than 50% of the family wages absorbed in rent. As the result it was found that in many cases the re-housing of the population resulted in a serious deterioration of the health of those who were re-housed. The opportunity for controlled experiment occurred in Stockton-on-Tees. In that town there was a large slum area which it was decided to clear, but owing to expense one-half only was cleared and the tenants re-housed by the Corporation. Dr. M'Gonigle, the Medical Officer of Health, working out the health statistics of the two moities of this slum population found irrefutable evidence that those who had been re-housed had deteriorated in health, whereas those who had been left in the slum had improved. Working this out in detail

it became quite evident that the extra rent paid by the re-housed section had necessitated curtailment of the money available for food, which, in its turn, had done far more harm than had the re-housing done good. It may be put as a general proposition that it is worse than useless to supply new houses for the working classes unless they are available at a rent which can be paid out of the family budget. I therefore put to you the first fact that we have got from our investigations: that the building of houses which cannot be let at a rent which is no greater than that already paid, is of no value to the population and does nothing whatever to settle the housing problem.

(2) Amongst that class of the population which is in reasonably good circumstances, there is both the opportunity and ability to obtain fair value for money, or at least to get the best deal which circumstances will permit. As regards housing, a man will either buy his house, or if he rents it, he will expect accommodation and convenience to be in tune with the price he pays for it. This is not the case with that large section of the population which hovers around the poverty line. To this class, attention must be paid to the amount that is outgoing for rent, but comparatively little attention is paid to the accommodation obtained for it. There are many families who would choose bad accommodation at 5/- per week in place of reasonable accommodation at 5/6. It is for this class that municipal housing schemes should be of the greatest service, but, unfortunately, it benefits much less than it should owing to the rents charged for municipal houses. Locally there is a far greater call for houses at say 6/- per week than for houses at 7/-, even though the latter offered twice the amenities.

It is impossible in the discussion of these questions to keep away from political considerations, for in England housing problems are rendered particularly difficult by our laws of property. The resultant is that housing accommodation in this country is inordinately expensive and we cannot compete with such countries as France or Germany in housing the working classes at a comparatively cheap rate. There is also no question that locally the expense of housing is above the average. These matters are not within the power of a local authority to remedy, but they must be taken into consideration. There is another big difficulty in England, namely, that the Englishman wants not only a private lodging, but a private restaurant as well, so that a large amount of our housing accommodation is wasted in the preparation and storing of food. Connected with this also are our archaic

methods of heating, by which great expense in the construction of fireplaces and chimneys, great increase of labour from dust and dirt and fouling of the atmosphere by partially consumed coal reduce materially benefits which might accrue to the population from re-housing schemes.

As I have said, the number of houses in Swindon is at least adequate to house the population, so that the problem before the town is entirely one of re-housing, which includes not only the building of new houses, but the destruction of old ones. Experience has taught us that so long as there is unsatisfactory property there will always be tenants to inhabit it. Unfortunately you have no real power to carry out this principle. You may—and, in fact you must—re-house any tenants that you displace owing to demolition of their residence, but you are limited in your powers as to what you may destroy. On the other hand, you have powers to go on building without destroying at the same time, producing a housing situation which is without benefit.

Another formidable difficulty is sub-letting. You, as a Health Committee, have power to prevent sub-letting only if the sub-letting leads to overcrowding, but you cannot take action in regard to overcrowding unless it is such as would have been considered overcrowding fifty years ago and for all intents and purposes your powers to deal with overcrowding are valueless.

In conclusion, I am of opinion that the Corporation can best help those of its citizens who need help by building houses of the cheapest and simplest construction possible, to be let at rents below 7/6 per week ; that it should be the policy of the Council to press for demolition of any house which is brought to the notice of the Health Committee as unfit for habitation, and that you should consider seriously the provision of a public lodging house and of tenements to be let in lodgings."

INSPECTION AND CONTROL OF FOOD STUFFS.

There is nothing new to be said under this heading, except in regard to the milk situation. Many analyses of milk are made in Swindon and these show that the product as delivered to the citizens is of a very satisfactory degree of purity. Milk is produced in immense quantities in Wiltshire, but we are still a long way from utilising it properly for the feeding of the population. Without exaggerating its claims as a food stuff, milk is undoubtedly the

cheapest and most satisfactory of all articles of diet, for one pint of milk daily will supply just about one-half of the total amount of food required by an adult, in fact the better half, for though it is not half the bulk, it contains more than half of the expensive elements—good animal proteid and first class animal fat. Given a pint of milk daily, the remainder of the diet can be built up of cheap and bulky material.

In order that the milk produced in England may be fully utilized for the feeding of the English people, two things are necessary : first, an improvement in the business side of the dairy industry and, secondly, the education of the people to profit by it. The former will, it is hoped, be done by the Milk Marketing Board, the latter can only be done by the education of the citizens.

It is ridiculous that in a country where milk of first class quality is almost super-abundant, the people should suffer from illnutrition which could be relieved completely by utilizing what is already there. There are several reasons why the English people do not drink milk, but they are all bad reasons and it behoves us to put an end to them. There is no real difficulty in supplying England with as much milk as it can possibly consume ; there is no difficulty in this milk being produced in a manner which is perfectly satisfactory to the Public Health ; there is no difficulty in milk being delivered to the consumer in a state of maximum food value and unassailable cleanliness and freedom from danger, and there is no real difficulty in the whole of the illnutrition of England being suppressed by the consumption of milk. For what it supplies, milk is vastly the cheapest of all foods and it is surely not asking too much that its merits should be appreciated and its consumption increased to what it reasonably should be, which is roughly four times what it is at present.

There has of recent years been a vast improvement in the method of milk distribution and at the present time the bulk of milk is supplied to the customers in sealed bottles. The old milk can has disappeared and it will not be long before distribution in sealed bottles is the only recognized method of delivery, except that there will always be a small amount of milk sold in very small quantities to the very poor. The law, which in most matters concerning milk supply is obscure and confusing, is very definite with regard to milk bottles and bottling and in Swindon we are determined that no offences connected with the bottling of milk shall be permitted, but the citizens themselves owe a duty to the scheme which ensures them a satisfactory milk supply and that duty is towards the bottles which are loaned to them. The milk bottles are the property of the distributors and not of the consumers, so that if the consumers destroy or purloin the bottles, presumably the distributors could claim damages against the consumers.

Maternity and Child Welfare.

ANNUAL STATISTICS RELATING TO THE MATERNITY HOME, 1933.

	Borough	County	Total
(1) Number of cases in the Home on 1st January, 1933	8	6	14
(2) Number of cases admitted during 1933.	285	102	387
(3) Number of cases remaining in the Home on 1st January, 1934	5	6	11
(4) Average duration of stay	13.69 days	14.25 days	
(5) No. of cases delivered by :—			
(a) Midwives	227	77	304
(b) Doctors	34	12	46
No. of cases in which no delivery took place	24	13	37
(6) No. of cases in which medical assistance was sought by the midwife	138		
(7) No. of cases notified as :—			
(a) Puerperal Fever	(a) —		
(b) Puerperal Pyrexia	(b) 43*		
(8) No. of cases of pemphigus neonatorum.	Nil.		
(9) No. of cases notified as ophthalmia neonatorum, with result of treatment in each case.	One, which was removed to Gorse Hill Isolation Hospital. Result — recovery, with some damage to left eye.		
(10) No. of infants not entirely breast-fed while in the Institution.	8		
(11) No. of maternal deaths, with causes.	3 2 Placenta praevia. 1 Chronic nephritis.		

* Only 6 of these are notifiable under the Puerperal Pyrexia Order, 1926.

ANNUAL STATISTICS RELATING TO THE MATERNITY HOME, 1933—Continued.

(12)	No. of foetal deaths :— (a) still-born (b) within 10 days of birth showing the cause of death in each case, and results of post-mortem examination (if obtainable).	Abortions 4. Stillbirths 19. Deaths within 10 days of birth 11. Causes :— Abortions : 1 injury. 1 Ante-partum haemorrhage. 1 Macerated, cause of death unknown. 1 Unknown. Still-births :— 4 were macerated, death being due in 2 of them to renal disease of the mothers in 1 to hydrocephalus of the foetus and 1 to no known cause. 15 were fresh. Of these : 3 were destroyed by craniotomy 2 were connected with toxaemia of the mothers 3 with ante-partum haemorrhage 1 was a hydrocephalic monster 2 were twins, not a pair, but in each case the loser of a pair, and in the 4 remaining cases no cause for the stillbirth is known. Deaths within 10 days : 1 died of congenital syphilis, 1 from pneumonia and 1 was a feeble infant 28 weeks premature from a case of placenta praevia. Of the remainder, 6 were premature and 2 full term, but in none of these could any cause for the infant's death be discovered.

Of the 350 cases delivered in the Maternity Home, 48 were delivered by forceps, giving a forceps rate of 13.7 (11.3)*. Amongst forceps cases there were 30 with ruptured perineum, a rate of 62.1 and in cases delivered naturally 57 with ruptured perineum, a rate of 19%. Altogether 87 (82) ruptured perineum, giving a rate of 24.8 (22.65). There were 21 inductions, 3 caesarean sections, 2 craniotomy, 4 eclampsia, 2 placenta praevia, one of which died undelivered.

EXTERN MIDWIFERY DEPARTMENT.

On the district there were 117 deliveries, consisting of 107 live births, 6 stillbirths and 4 abortions. One case was transferred to the Maternity Home and two of the miscarriages were transferred to the Isolation Hospital. There was one infant death. In 28 cases a doctor was called in under the Midwives Acts and in 16 cases the Extern Staff acted in the capacity of maternity nurses to doctors' cases.

During the year 20 probationers were under instruction. Of these, 8 obtained the certificate of the Central Midwives Board.

REPORT ON THE WORK DONE AT THE MATERNITY CLINIC 1933.

(By Dr. VIOLET KING, Assistant Medical Officer of Health).

The attendance of the mothers at this centre continues to be satisfactory, although the numbers are rather below those of the preceding year.

Ten cases were admitted from there to the Maternity Home for the following reasons :—disproportion, rest and observation, symptoms of toxaemia, albuminuria, observation previous to induction, unsatisfactory general condition, and ante-partum haemorrhage.

Of the nine cases of suspected pregnancy, seven were not established and two were untraced.

One hundred and ninety-eight of the mothers who attended were primigravidae.

There were 18 cases of albuminuria. Twelve had a trace once only, three had a trace on two occasions, and one had a definite quantity on one occasion only. Two cases were severe and had to have special treatment, and one of these two mothers was later delivered of a still-born baby.

There were two maternal deaths, the baby in each case being still-born. Particulars are given in the table.

V. REDMAN KING,
Asst. Medical Officer of Health.

Public Health Department,
61, Eastcott Hill, Swindon.

* Figures in brackets are numbers and rates for 1932.

STATISTICS RELATING TO THE MATERNITY CLINIC, 1933.

No. of mothers attending the Maternity Centre	476
Attendances at Matron's Clinics	1549
Attendances at Doctor's Clinics	932
Attendances at Consultant's Clinics	110
TOTAL	2591
No. of cases referred to Consultant's Clinic	50
No. of cases referred to own doctor	6
No. of cases referred for dental treatment	10
Specimens of urine tested	2275
Gynaecological and post-natal cases	15
Cases of suspected pregnancy	9
Admitted to Maternity Home from Ante-Natal Clinic	10
Deliveries elsewhere than in County of Wilts	10
Cases X-rayed	2
Conditions found at Clinics :—	
Albuminuria	18
Enlarged thyroid	19
Contracted pelvis	3
Varicose veins	75
Pyorrhoea	3
Epistaxis	5
Heart Disease	1
Scoliosis	2
Prolapse	2
Confinement Results with Particulars :—	
No. of deliveries	443
Of these—	
Twins	8
Breech	10
Transverse	1
Premature	6
Still-births	16
Inductions	18
Instrumental delivery	54
Abortions	6
Maternal Deaths	2
Foetal Abnormalities :—	9
Cleft palate	2
Extra fingers and toes	1
Talipes	2
Double talipes and spina bifida	1
Meningocele	1
Hydrocele	1
Hypospadias	1

The following table gives the details of confinements of women who had attended the Ante-natal Department, but in whom the child failed to survive :—

No.	Age	Para	Visits	Details of Confinements.	Ante-natal and Previous History.
1	47	12	4	Admitted to Maternity Home with ante-partum haemorrhage. General condition became worse. Mother died two hours after the child's birth.	Mother had had one premature baby and one abortion. With the 10th pregnancy was admitted into Maternity Home with ante-partum haemorrhage: child still-born; followed by pleurisy. Complained at Ante-natal Clinic of much perineal discomfort, left from other confinements. Had had bleeding at 3½ months and was under doctor's care. Felt quite well until admission.
2	21	1	6	Admitted to Maternity Home in early morning. Foetal heart sounds were clear but gradually became fainter. Prolapse of the cord was found; forceps were applied soon after and the child delivered.	Mother said to be healthy, but was subject to fainting attacks. Some bad teeth were having attention. Blood pressure 2 weeks before delivery 135.
3	24	1	11	Delivery of twins in the Maternity Home. The first came rapidly and normally, and was still-born. The membranes had apparently ruptured before admission. The second was alive and was delivered only after much delay, was posterior in position and had to be assisted by forceps.	Previous history good. Suffered with indigestion and headache. Twins were diagnosed on the third examination and two days before delivery.
4	33	1	4	Delivery of twins in the Maternity Home; the first was living. The second was asphyxiated and did not respond to treatment.	The mother had had anaemia in past time and had had treatment. In clinic was found to be very nervous, with dry rough skin and swollen legs. Abdomen so rigid that palpation was practically impossible.

No.	Age	Para	Visits	Details of Confinements.	Ante-natal and Previous History.
5	34	5	4	A tedious labour with much oedema of cervix and prolapse of anterior vaginal wall. Doctor called in and chloroform given.	No history of disease or ill-health. Three first children born normally. The fourth was premature, the mother having ante partum haemorrhage and prolapse of the uterus. Did not feel well during present pregnancy, and was noticed once to be rather strange in manner.
6	22	1	10	Admitted to Maternity Home five hours after the beginning of labour pains. Foetal heart rate was then 150. Seven hours later normal delivery took place without any evidence of foetal distress. Mother's pulse 156, with some evidence of hyperthyroidism and tremor.	History of a nasal polypus in school days. Not removed. Kept well during pregnancy. Abdomen very rigid.
7	26	5	6	Mother delivered on district of a macerated foetus. No other details.	No history of ill-health. First two children still-born. Last two living and normal deliveries. Kept well through pregnancy. On the first day of the last month, the foetal heart was clearly heard. Nine days later no heart was heard and no movements felt. She was delivered 3 days afterwards.

No.	Age	Para	Visits	Details of Confinements.	Ante-natal and Previous History.
8	39	3	4	Booked for the Home but delivered prematurely on district of a macerated foetus.	The mother had been attending the V.D. clinic for eye trouble. The first confinement was normal, but the baby weighed only 4 lbs. Three years later there was an abortion, said to be due to strain. Mother had some bad teeth during present pregnancy and much sickness. During the 5th month had some bleeding for which she was admitted to Maternity Home for a week.
9	41	7	1	Delivered on district of anencephalic child. Hydramnios present.	Was not very well during present pregnancy. Varicose veins present. All deliveries normal, babies rather large. Much haemorrhage after.
10	22	1	3	Delivered on district. Delayed 1st stage, one hand and leg presenting and prolapse of cord.	Apart from menstrual troubles the mother had apparently been quite healthy, though the family history on both sides is bad. Two families intermarried ; in mother's own family father had heart disease, 6 children died young ; one brother has heart disease, one is in asylum, one committed suicide. In husband's family there is a strong V.D. history. This mother was sent for a Wassermann which was negative.

No.	Age	Para	Visits	Details of Confinements.	Ante-natal and Previous History.
11	41	7	2	Admitted as an emergency to the Maternity Home with ? pre-eclampsia, transferred from the general hospital. At that time no foetal heart was heard and no movements felt. After general treatment and blood examination, the mother was delivered the following day of a macerated foetus. Twelve days later she was moved to the isolation ward, where she died the following day.	Mother suffered from asthma and bronchitis. She had much catarrh and looked anaemic. On her second visit she said she had had a fall which had dazed and shaken her up. She was given a card for the dentist and a note to obtain extra nourishment from the Public Assistance Committee. It was about 7 weeks after that she was admitted to the Home. All the confinements had been normal, the last baby being a breech presentation.
12	19	2	17	Admitted to Maternity Home, os fully dilated, and delivered normally of macerated hydrocephalic infant.	Mother had had operation for hernia in 1931. Had one premature macerated foetus the following year, after which she developed influenza. During present pregnancy had rheumatism and headaches. Blood pressure was usually 140. Foetal movements and heart sounds detected to within 12 days of delivery. Saw consulting obstetrician on 2 occasions. Sent into Home for albuminuria 6 weeks before confinement, and was kept in for 3 days.
13	26	1	5	Delivered easily but prematurely of a breech baby. Unhealthy placenta.	Diphtheria in childhood. Appendicectomy 5 years ago. At Ante-natal Clinic rather tired, with oedema of feet. Thyroid slightly enlarged. Albuminuria present in last specimen of urine, examined 5 days before confinement.

No.	Age	Para	Visits	Details of Confinements.	Ante-natal and Previous History.
14	29	1	13	Admitted to Maternity Home for observation on account of high blood pressure and headache, the child lying in breech position. No albuminuria. Delivered 12 days after and slightly prematurely. No difficulty. Cord excessively knotted ; placenta unhealthy.	Scarlet Fever at 12 years. Tonsillitis and nervous breakdown 7 years ago. Operation for dilatation 1932. Subject to headache. Now pains in sciatic region and during the last month high blood pressure and epistaxis. Some oedema of hands face and feet. Seen by consultant and admission advised forthwith. Foetal heart still clear 3 days before admission.
15	26	3	6	On admission to Maternity Home, baby lying in breech position and no foetal heart heard. Rapid and normal delivery of macerated foetus. Placenta and membranes unhealthy and offensive.	Appendicectomy and curettage 1926. Former confinements normal. Present circumstances poor. Extra nourishment provided by Public AssistanceCommittee. On last visit to clinic no movements felt or heart heard. Admitted 6 days later.
16	25	2	3	Patient booked as a Home case, but delivered prematurely as an emergency on district, of a macerated hydrocephalic foetus.	Mother had a good history. First confinement normal, but some post partum haemorrhage. Now has varicose veins. Felt well during present pregnancy.

Neo-Natal Deaths in relation to Ante-Natal Work, 1933.

No.	Age	Para	Visits	Mother's History.	Confinement.	Infant's History.
1	33	1	10	No recorded illnesses. Kept very well all through pregnancy. Some doubt about presentation and was to have seen the consultant, but failed to come.	Tedious labour resulting in a breech birth. Internal lacerations and perineal tear. District case.	An 8 lb. baby, white asphyxia. Did not respond to treatment and died in 2 hours.
2	28	3	9	Had a tumour of right breast removed 1932. Was ill all through pregnancy with frequent attacks of haemorrhage and abdominal pain. Looked pale and ill. Strong suspicion here that baby was not wanted and abortifacients had been tried.	Confined prematurely by private midwife, of 7 months baby. Actually born before her arrival.	Child survived only a few minutes.
3	29	5	5	Healthy history. All confinements normal. Well during pregnancy except for heart-burn.	Normal confinement in Maternity Home.	Child asphyxiated, and had recurrent attacks of cyanosis after partial recovery. Lived 6 hours.
4	20	1	1	Healthy history. Booked for Maternity Home only shortly before confinement. Was then feeling well.	Normal labour.	Baby weighed 6lbs. 11ozs. Very feeble and asphyxiated. Lived 6 hours.
5	27	5	16	Several 'operations'; pregnancies always difficult to diagnose. Was well till later months and then developed pain under the ribs. Twice attended consultant's clinic for diagnosis of pregnancy, and was in Maternity Home for 3 days.	Breech birth after normal labour.	Premature infant, very cyanosed and feeble. Lived 3 hours.

Neo-Natal Deaths in relation to Ante-Natal Work, 1933.—(Contd.)

No.	Age	Para	Visits	Mother's History.	Confinement.	Infant's History.
6	25	2	6	Gastric trouble and 'fits' at school. Appendicectomy 1928. Curettage 1930. Tumour removed from left breast, 1931. First pregnancy, and confinement normal. Subject to headaches. Has leucorrhoea and varicose veins. Is rather shaky, with headaches and some swelling of feet. Some sickness and diarrhoea. Felt much better towards end. Albuminuria present on 2 occasions.	Normal confinement.	Baby weighed 7¼ lbs. Healthy till contraction of whooping cough 3 weeks later, and died within a few hours.
7	32	2	5	Diphtheria and eczema as a child. Many sore throats. 1st confinement instruments used. Present pregnancy, leucorrhoea, backache and headache. Much fatigue.	Complicated breech birth.	Spina bifida, double talipes and very large abnormal head. Frequent convulsions. Was admitted to GreatWestern Hospital. Death at 1 month.
8	25	2	11	Pneumonia in childhood. 1st confinement difficult. Instruments used and perineum sutured. Small baby. Present pregnancy much sickness, some bad teeth. Has anaemia and sent to own doctor for it. Visited consultant's clinic twice.	Os fully dilated on admission. Normal delivery. Mother developed pyrexia, spleen found to be enlarged. Blood examination :—" Red cells irregular in size and shape, stain poorly. Anaemia of chlorotic type."	Weighed 6 lbs Died suddenly in three days.

REPORT ON THE INSPECTION OF MIDWIVES AND NURSING HOMES. 1933.

(By Dr. VIOLET KING, Assistant Medical Officer of Health and Inspector of Midwives.)

37 midwives notified their intention to practice during the year, nine of them privately. 22 routine visits were paid to the latter during the year, no special visits being necessary.

Three of the nursing homes were inspected once each, and one twice.

It is difficult to see how the private midwife is going to make a living at present. Analysis of the division of cases is illuminating. The Maternity Home and district cases together numbered 466 for the year, including both midwifery and maternity cases. If nursing home cases are excluded, and also those taken by county midwives just over the boundary, the average number of them left for each midwife is about 34.5. In actual practice, four out of the nine midwives do nearly all the cases between them.

The following forms, other than for medical help, were sent in by midwives :—

Artificial feeding 6. The following reasons were given : " Persistent sore nipples of mother ", " Patient's cardiac condition ", " Doctor's orders (Spina bifida)", " Doctor's orders ", and in two cases " Infant to be adopted shortly".

Notification of deaths in midwives practices 10. 2 mothers and 8 infants.

Notification of laying out of dead bodies 15. 4 mothers and 11 infants.

Notification of infectious conditions and contact with them 8, for the following conditions :—

3 Puerperal pyrexia,
2 Hyperpyrexia,
1 Pyrexia (incomplete abortion)
1 Broncho-pneumonia (pyrexia), and
1 Chickenpox.

Notification of still-birth 13.

No. of medical help forms sent in :—

For mothers	....	223
For babies	....	22
		245

CONDITIONS FOR WHICH MEDICAL HELP WAS SOUGHT BY MIDWIVES.

Mother.		Child.	
Prolonged labour	46	Prematurity	1
Ruptured perineum	95	Prematurity with dangerous feebleness	4
Uncertain, or malpresentation	12	Dangerous feebleness	5
Ante-partum haemorrhage	6	Abnormalities	3
Post-partum haemorrhage	1	Discharging eyes	3
Retained or adherent placenta	6	Bleeding per rectum	1
Obstructed labour	4	Persistent vomiting and cyanosis	1
Induction	15	Jaundice	1
Threatened abortion	2	Haematemesis	1
Complete abortion	2	Haemorrhage from mouth	1
Incomplete abortion	1	Unsatisfactory condition	1
Disproportion	4		22
Placenta praevia	1		
Eclampsia	1		
Uterine inertia	2		
Albuminuria	3		
Rise of temperature	2		
Persistent vomiting	3		
High blood pressure	1		
Phlebitis	1		
Deformity of spine	1		
Swelling of legs	2		
Inflamed breasts	1		
Poor general condition	3		
Poor mental condition	1		
Severe cyanosis and poor pulse	1		
Illness of patient eight months pregnant	1		
Abnormal condition (amputation of cervix three years previously)	1		
Prolapse of cord	1		
Patient's own request	3		
	223		

V. REDMAN KING,
Asst. Medical Officer of Health
and Inspector of Midwives.

PUERPERAL PYREXIA.

51 cases of puerperal pyrexia were notified in the Borough in 1933. In addition, there were 2 cases unnotified which should have been notified, 9 cases treated in the Borough but notified elsewhere and 3 cases of sepsis which for special reasons were treated as though they were notifiable, though they were not notifiable according to any convention and were, in fact, not notified. This gives a total of 65 cases treated in Swindon. Of the cases notified, 43 were notified from the Maternity Home. These cases were by no means all natives of Swindon. Notified from their own homes were 6 only, 1 was notified from a private nursing home and 1 from the Isolation Hospital.

7 of these cases, including 2 from the Maternity Home, 1 from the private nursing home, 1 not notified until after admission to Hospital and 3 from their own homes were admitted to the Isolation Hospital.

There were 3 deaths. One died in her own home, one was removed from her own home and died in the Isolation Hospital and the third died in the Maternity Home. The last was a case of hyper-pyrexia occurring in connection with chronic kidney disease.

The large number of cases notified in the Maternity Home is explained by the use of the New South Wales Convention in connection with that institution. According to the British Convention, of the 43 notifications, 6 only are notifiable and of these 2 are not natives of Swindon. For purposes of comparison with other districts of England and Wales the number of puerperal pyrexias in Swindon in 1933 should, therefore, be 14 and the rate should be cast on the actual number of births which occurred in Swindon, namely, 893 and not upon the number accredited to the Borough by the Registrar General. Thus cast the puerperal pyrexia rate was 15.6 and the sepsis death rate 2.2. For the Maternity Home the pyrexia rate was 1.7 and the sepsis death rate zero.

During the course of the year the Medical Officer of Health prepared a monograph on puerperal pyrexia which may be published in the course of 1934, so it is not proposed to make any comment upon this subject in the present report.

We are satisfied that the more dangerous forms of puerperal fever, *i.e.*, the septicaemias due to streptococci of exogenous origin, are frequently spread by droplets from the attendants upon puerperal women and, therefore, that a case is made out

for midwives wearing masks when they are engaged in delivery. We therefore prepared the following memorandum, copies of which were sent round to all midwives under the jurisdiction of the local authority, and the Medical Officer of Health met the midwives in conference, who expressed their willingness to wear the masks, provided that the Medical Officer would do his best to prevent the wearing of masks by midwives being used as a point to interfere with their practices.

COPY.

"Recent researches have shown that the more dangerous forms of puerperal fever are due to germs known as haemolytic streptococci, whose normal home is the human throat and nose. These germs set up a large number of diseases such as scarlet fever, erysipelas, tonsillitis and puerperal fever, though they can and do exist in the throats of most of us without causing any trouble. Not every human throat is infected with haemolytic streptococci at all times, but they can be found in all throats at some times and in some throats at all times. They are discharged from the throat and nose in coughing, sneezing, speaking and even in breathing. Should they be discharged upon the mucous membrane of another human, or upon a broken surface of the skin, they survive and will set up disease in the person receiving them, unless he or she happens to be already immune to them. Should they fall elsewhere than upon a human they rapidly die.

In the development of aseptic surgery it was found that the discharge of haemolytic streptococci from the throats of those who come close to an operation wound was one of the most important sources of infection, so that surgeons and their assistants, when operating, always wear masks. It is now known that what may take place at operation may also take place at delivery and that those attending a woman in her confinement may discharge upon the mucous membrane or damaged vulva, streptococci which may set up dangerous and sometimes fatal disease. The conditions during delivery are highly favourable for such a disaster, because the attendant must bend over the patient and no delivery takes place without some amount of injury. The chief danger is from the haemolytic streptococci being deposited upon a fresh wound, for at the time a wound is made, and for a short time afterwards, there is no protection against the entry of germs into the blood stream.

From these considerations it has been deducted that if midwives and others who come in close contact with a woman in her delivery wear masks, much danger can be averted and that though the wearing of masks would not put an end to all forms of puerperal infection, it should guard against those which are most

dangerous. Experience supports this and it has been found that the wearing of masks by midwives does much to reduce maternal mortality.

I have, therefore, decided to advise all midwives practising within the Swindon district to wear masks during actual delivery and also while attending to the patient's parts on the day following delivery and I ask you to agree to do so. The masks are cheap enough and you can make them yourself with very little trouble. We are also prepared to supply you with a limited number of them free of charge on application to the Matron of the Maternity Home. The masks should be used once only and then destroyed. They should cover the mouth and nose. They are slightly uncomfortable until you get used to them.

A point of importance is that your patients may not take kindly to your wearing a mask. Women, as you know as well as I do, are extremely suspicious of innovations and are likely to misjudge precautions as fussiness. You might, therefore, fear that the wearing of masks would be detrimental to your business and that those midwives who did not accept this precaution would have an advantage over you. I am, however, preparing to prevent this from happening by broadcasting to the people of Swindon that the wearing of masks by midwives is a measure for their safety and that the neglect of the mask exposes them to considerable unavoidable risks. I have, therefore, every reason to believe that if you wear the masks you will achieve not only greater safety for your patients, but greater respect for your own work."

MATERNAL DEATHS.

In the compilation of the maternal mortality the New South Wales Convention is adopted in Swindon. This gives us a much higher number of maternal deaths than is accredited to us by the Registrar General.

Eight maternal deaths occurred in the Borough in 1933 and full accounts of all were prepared. All of the deaths are accreditable to the Borough and the details concerning them were transmitted to the Ministry of Health in accordance with their request, but four of them at least will not be considered by the Registrar General as maternal deaths. One will be returned as tuberculosis, one as pneumonia, one as chronic nephritis and one as unspecialised peritonitis.

OPHTHALMIA NEONATORUM.

The number of cases of ophthalmia neonatorum notified in the Borough during 1933 was 3. Of these, one occurred in a private maternity home and was treated there. The patient was not a native of Swindon. No bacteriological examination of this case was made, but it recovered without injury and it is almost certain that it was not of gonorrhoeal causation. One case occurred in the Municipal Maternity Home, which was of gonorrhoeal causation and was removed to the Isolation Hospital. This patient was not a native of Swindon. The case was very severe, but eventually recovered with slight permanent damage to one eye. The third case was treated at the Clinic and was bacteriologically sterile. It cleared up quickly without any injury to the sight. It is worth noting that no case of ophthalmia neonatorum of gonorrhoeal causation has occurred in a native of Swindon since 1930.

41 cases of sore and discharging eyes were notified by midwives. Two of these were cases which had been notified by a medical man. The third case notified by a medical man was not notified by the midwife, but she brought the case up to the Clinic for treatment. Of the others, 21 occurred in the Maternity Home, where notification is enforced rigidly. Of these 21 cases which occurred in the Maternity Home, 19 were cured before the discharge of the mothers and two were transferred to the Clinic and subsequently cured. None of these was gonorrhoeal.

18 cases occurred privately, other than notified cases. 7 of these were treated at the Clinic and all recovered. None of these was gonorrhoeal. The remaining 11 cases were treated privately, but they were all visited from the Health Department. None of these was examined bacteriologically, but they were all trivial.

In addition, 9 cases which had not been notified by midwives were treated at the Clinic, of which 3 were not natives of Swindon and 2 cases were left over from last year, also treated at the Clinic. None of these cases was gonorrhoeal and all recovered completely.

Locally in Swindon every case of sore and discharging eyes in new-born infants, however trivial, has to be reported to the Medical Officer of Health by the midwives. The great majority of these cases are treated throughout by the Public Health Department and those which are not are supervised by the Health Visitors. All cases which come to the Public Health Department are bacteriologically examined. The scheme was originally introduced in Swindon before the Ophthalmia Neonatorum Regula-

tions came into force and was designed primarily to put an end to blindness resulting from ophthalmia neonatorum. In this object it has succeeded, for since the scheme came into force in 1921 no child has lost his sight from this disease.

It will be seen from the table and from the reports which are published yearly, that ophthalmia neonatorum of gonorrhoeal causation has temporarily—and, one hopes, permanently—died out of Swindon, though in the early years of the scheme the number of gonorrhoeal cases in natives of Swindon was very high.

Of recent years the scheme has served another function. It has been found that besides the dangerous gonorrhoeal ophthalmia, new-born babies are much troubled by a blocking of the lacrimal canal and this requires continuous treatment, sometimes for several months, to prevent the occurrence of atresia with consequent epiphora in after years.

More recently still a new value has been found for the rigid notification of sore eyes in new-born babies. This is the connection between ophthalmia neonatorum, not of gonorrhoeal causation, and puerperal pyrexia. Ophthalmia is the first and commonest reaction of the new-born to pneumococcal and streptococcal infection and has material bearing upon the epidemiology of disease due to these two classes of parasites.

In the notes of the one case of gonorrhoeal ophthalmia treated in Swindon in 1933 we have the following commentary, which is worth publication in the hope that it may produce a response from others who may have experience of this form of gonorrhoeal ophthalmia :—

" This is a typical case of a form of ophthalmia neonatorum which develops late, *i.e.*, after the fourth day of birth. We have in Swindon seen several cases, perhaps ten or more, of this form of ophthalmia, but I cannot find that it has ever been described. It differs from the ordinary form of ophthalmia neonatorum in many particulars and more closely resembles the gonorrhoeal ophthalmia met with in adults. The chief points about this form are as follows :—

(1) It never starts earlier than the fourth day and frequently not until the tenth day.

(2) It starts as a quite trivial affection and unless a bacteriological examination is made is certain to be missed until the cornea becomes damaged.

(3) There is comparatively little discharge for the first few days and very little swelling of the lids. Some time ago I saw one case in which the cornea had perforated before anything wrong had been noticed with the infant's eyes.

(4) The condition slowly gets worse and the cornea does not become affected until the disease is several days old.

(5) Damage to the cornea is progressive and if perforation occurs it rarely does so until the third week.

(6) The disease might almost be called chronic in contrast to the violence of the more common form of ophthalmia neonatorum.

(7) Onyx generally develops before ulceration, and exudation into the anterior chamber always occurs.

(8) If perforation occurs it does not occur as it does in the more acute form, as a sudden minute opening which empties the anterior chamber and then heals immediately, but as an extensive sloughing of a considerable part of the corneal substance and complete disorganization of the eyeball.

(9) The gonococcus can be demonstrated in the pus for many days, or even weeks.

(10) The prognosis is exceedingly bad, the present case being the only one in which I have been able to save an eye, but fortunately it is rare for both eyes to be seriously affected.

(11) As regards treatment the following seems to give the best results :—

(a) Nitrate of silver to the lids, particularly to the fornix, care being taken to keep it off the cornea.

(b) Atropine as long as possible, but with occasional neutralization with eserine.

(c) Hourly or more frequent flooding of the eye with saturated solution of $MgSO_4$.

(d) Pure gonococcus vaccine, pushed rapidly in large doses and

(e) Sulfarsenol in large doses as soon as the substance of the cornea becomes involved."

OPHTHALMIA NEONATORUM.

Year	No. Notified	Cases of Infantile Ophthalmia due to Gonococcus	Where Treated				Result.				Not Notified as O.N.
			Home	Gorse Hill.	Clinic	Maternity Home.	Cured	Blind	Injured	Died.	
*1921	7	?	3	—	4	—	7	—	—	—	19
1922	21	?	2	....	19	....	20	....	1	....	16
1923	34	23	5	4	25	....	30	....	2	2	11
1924	15	13	....	3	10	2	15	....	....	....	12
1925	9	4	1	2	5	1	9	....	....	....	11
1926	8	3	....	....	8	....	8	....	....	....	22
1927	11	5	1	3	6	1	11	....	....	....	15
1928	4	4	....	2	2	....	4	....	....	....	30
1929	3	2	....	1	2	....	2	....	1	....	28
1930	11	8	1	4	6	....	11	....	....	....	58
1931	4	....	....	1	2	1	4	....	....	....	55
1932	5	1	1	....	4	....	5	....	....	....	49
1933	3	1	1	1	1	....	2	....	1	....	46

* These figures are incomplete.

Table showing number of cases of Ophthalmia Neonatorum notified, the number treated, the results of treatment, and the number of deaths occurring. 1933.

No. of Cases Notified. 3	No. of Cases	Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
Treated at Clinic	1	1	....	....	....
Treated at Gorse Hill Clinic	1	....	1	....	....
Treated at Maternity Home	....	....	....	....	....
Treated Privately	1	1	....	....	....
TOTALS	3	2	1	....	....

PEMPHIGUS NEONATORUM.

No case of pemphigus neonatorum occurred in the Borough of Swindon during 1933. One fatal case was admitted from the County district into the Isolation Hospital.

CHILDREN ACTS, 1908 and 1932.

The three Health Visitors are the Infant Protection Visitors under this Act. There were on the register at the end of 1933, 27 boarded-out children under the age of nine. These are kept under supervision and in every case conditions are satisfactory.

Table Showing the Number of Visits Paid by the Health Visitors to Mothers and Children and to cases of Tuberculosis.

	1929	1930	1931	1932	1933
No.of first visits paid to mothers and children	884	975	910	896	778
No. of revisits	4765	4240	4250	4445	4528
No. of visits paid to expectant mothers	330	260	294	299	263
No. of visits paid to cases of deaths and stillbirths	110	109	95	103	77
No. of visits to cases of Tuberculosis	127	161	168	105	81
No. of visits paid to children aged 1—5 years	5570	5419	5497	5686	5877
	11786	11164	11214	11534	11604

Record of Work done at the Infant Welfare Centres during the Years 1929—1933 inclusive.

	1929	1930	1931	1932	1933
No. of separate Infants who attended the Centre at—					
Eastcott Hill	1247	1278	1303	1310	1315
Gorse Hill	263	245	244	267	255
Rodbourne	261	233	253	230	203
Pinehurst*	66	139	145	159	153
TOTAL	1837	1895	1945	1966	1926
Number of Attendances—					
Eastcott Hill	6649	8232	8488	8048	7584
Gorse Hill	1917	2098	1774	1869	2047
Rodbourne	2282	2156	2258	2118	2034
Pinehurst	309	920	929	1108	842
TOTAL	11157	13406	13449	13143	12507
Number of cases which received medical advice and treatment	939	1050	1049	1020	1050
Total Consultations	2636	3567	3445	3169	2874

* Opened 15th July, 1929.

SUMMARY OF CONDITIONS SEEN AND TREATED AT THE INFANT WELFARE CLINICS DURING THE YEAR 1933.

	Infants	Toddlers	Total
Disease and Defects due to Ante-Natal Causes—			
Phimosis	105	2	107
Congenital defects of nervous system	9	8	17
Squint	16	12	28
Congenital diseases of the blood	—	—	—
Other congenital deformities and defects	48	1	49
	178	23	201
Specific Infections—			
Congenital syphilis	5	—	5
Gonorrhœa other than O.N.	—	—	—
Ophthalmia neonatorum	22	3	25
Pemphigus neonatorum	—	—	—
Tuberculosis	1	2	3
Diphtheria, scarlet fever, measles, whooping cough	15	4	19
Pneumonia	4	—	4
Rheumatism	—	1	1
Nervous system	—	1	1
Ear disease	33	19	52
Various infections	64	23	87
	144	53	197
Deficiency States—			
Ill-feeding	237	3	240
Scurvy	6	2	8
Rickets	26	4	30
Anaphylaxis	8	2	10
Asthma	2	1	3
Skin	20	—	20
Teeth	22	47	69
Tonsils and Adenoids	5	16	21
Various	2	9	11
	328	84	412
Injuries	30	14	44
Miscellaneous	155	41	196
	835	215	1050
No. of Operations for the removal of Tonsils and Adenoids	—	4	4
No. of Bacteriological examinations	33	7	40
No. of Haematological examinations	5	8	13
No. of X-Rays examinations	8	7	15
No. of Mental Defectives	10	6	16
No. of Physical Defectives	3	1	4
No. of Blind Children	—	—	—
No. of Deaf Children	—	—	—
No. of Mute Children	—	—	—

Table Showing the Number of Infants and Toddlers referred to Special Departments for Treatment during 1933.

	Infants	Toddlers	Total
Dental Clinic	21	325	346
Eye Clinic	7	5	12
V.D. Clinic	10	2	12
Orthopaedic Clinic	9	4	13
Throat, Nose and Ear Clinic	—	9	9
Electrical Clinic	5	2	7
Tuberculosis Clinic	—	1	1
Rheumatic Clinic	—	—	—
Total	52	348	400

THE MILK (MOTHERS AND CHILDREN) ORDER.

	1929	1930	1931	1932	1933
No. of applications granted	71	100	158	270	265
Total quantity of Milk issued (Galls)	1572	2195	3069	7025	8320
Total Cost £ (approx.)	150	200	270	635	770

INFANTILE MORTALITY.

The deaths of all persons under the age of 25 which occur in Swindon, and of all Swindon children who die away from the town, are investigated. Some knowledge of the previous history of these children is in the possession of the Health Office and, in an increasing number, the full life histories are available. Since some children die in the institutions of Swindon who do not belong to the town, and certain other children who have regularly attended the Swindon clinics die elsewhere, these investigations become somewhat complicated. In the review which follows, cognizance is only taken of those deaths which the Registrar General accredits to Swindon.

STILL-BIRTHS.

37 stillbirths were notified in Swindon during 1933, of which 4 which occurred in the Maternity Home are not accreditable to the Borough, so that 33 cases belong to Swindon, against 36, 33 and 42 in the three preceding years. 15 Borough cases and the 4 outside cases were delivered in the Maternity Home, 1 was delivered in the G.W.R. Medical Fund Hospital, 2 in private nursing homes and 15 occurred in the patients' own homes.

2 of the cases were illegitimate pregnancies.

14 of the mothers had attended the Ante-natal Department, 5 had been attended by doctors during their pregnancies and 14 had not received ante-natal attention by a medical man so far as is known.

NOTE.—In the following paragraphs, cases marked * were physically, and † were mentally defectives.

DEATHS BEFORE THE END OF THE FIRST DAY.

6 such deaths occurred, against 9 for last year. 4 were males and 2 females. All were legitimate. 4 occurred in the Maternity Home. 2 were first pregnancies, 1 second, 1 third and 2 fifth. 4 of the mothers had received ante-natal attention.

There is no satisfactory explanation of any one of these deaths, though all but one were premature.

DEATHS BETWEEN THE END OF THE FIRST DAY AND THE END OF THE FIRST WEEK.

8 such deaths occurred, against 8 for last year. 5 were males and 3 females. One case which was not born in the Borough is believed to have been illegitimate, the others were legitimate. 2 were first pregnancies, 3 second, 1 third, 1 sixth, and in one there is no information.

So far as can be ascertained, one of the mothers of these children attended the Ante-natal Clinic.

There is no satisfactory explanation of the deaths of any of these children. One died suddenly and was the subject of an inquest and one is reported to have died of haemophilia.

DEATHS BETWEEN THE END OF THE FIRST WEEK AND THE END OF THE FIRST MONTH.

There were 4 such deaths, against 11 for last year. 3 were males and 1 female. All were legitimate. 2 were first pregnancies, 1 second and 1 third. None of the mothers had received ante-natal attention.

2 were breast fed. One of these died of whooping cough and in the other the cause of death is uncertain.

Of the 2 who were not breast fed, one died of erysipelas and in the other the cause of death is uncertain.

None of these children had attended the Infant Welfare Centre.

DEATHS BETWEEN THE END OF THE FIRST MONTH AND THE END OF THE FIRST YEAR.

22 such deaths occurred, against 19 for last year. 16 were males and 6 females. All were legitimate. 10 of the cases had attended the Infant Welfare Centre and their histories are fully known. Of these, one only had been fully breast fed and died of whooping cough. The other 9 had been breast fed during the first few weeks of life and subsequently artificially fed. These died from the following causes :—1 cerebro-spinal meningitis, 1 congenital obstruction of the common bile duct *, 1 operation for cleft palate*, 1 Banti's splenomegaly*, 1 scurvy §, 1 erysipelas 1 influenza and 2 whooping cough.

Of the 12 cases who were not known at the Clinic, 6 are reported to have been breast fed. 4 of these died of whooping cough, 1 of spina bifida*, and in the other the cause of death is uncertain. 4 had been partly breast fed. Of these, 1 died of pyloric stenosis*, 1 from acute bronchitis, 1 from overlying and 1 from whooping cough. 1 was artificially fed and died from spina bifida*. 1 died away from Swindon from pneumonia. This child was illegitimate, artificially fed and was not strictly a citizen of the Borough.

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§ This child died in hospital and the death certificate was signed "Persistent vomiting and marasmus", but as the diagnosis of scurvy had been made a few days before it went into hospital, death may reasonably be accredited to that disease.

Deaths Between the First and Second Year.

7 such deaths occurred, against 10 for last year. 3 were males and 4 females. One case only had not attended the Clinic. He had been artificially fed and died from broncho pneumonia, almost for certain whooping cough.

Of the 6 who had attended the Clinic, 4 had been fully breast fed. 2 died from whooping cough, 1 from influenza and 1 was suffocated in bed. 2 had been partly breast fed. One of these died of broncho pneumonia and the other, an idiot, died of pneumonia †.

Deaths Between the Second and the Fifth Year.

14 such deaths occurred, against 15 for last year. 4 were males and 10 females. 3 cases had not attended the Clinic. 2 of these had been fully breast fed ; one died of a fractured skull (motor accident) and the other from whooping cough. One case was artificially fed and died from diphtheria.

Of the 11 cases known to us at the Clinics, 6 had been fully breast fed and died from the following causes :—1 from hydrocephalus*†, 2 from diphtheria, 1 drowned‡, 1 broncho pneumonia, almost for certain whooping cough, and another from diphtheria†. 2 cases had been partially breast fed ; 1 died of whooping cough and 1 of pneumococcal peritonitis. 3 had never been breast fed. 1 of these died of diphtheria, 1 of hydrocephalus*†, and 1 from spastic paraplegia and was, almost for certain, a post encephalitis lethargica*†.

Deaths Between the Fifth and the Tenth Year.

6 such cases occurred, against 11 for last year. 1 was a male and 5 females. All of these were known to us. 3 died from diphtheria, 1 from fractured skull (motor accident), 1 from meningitis, probably cerebro-spinal meningitis but never proved, and 1 was drowned ×.

Deaths Between the Tenth and the Seventeenth Year.

There were 6 such deaths, against 6 for last year. 1 was a male and 5 females. 1 case was not known to us and died of cerebro-spinal meningitis.

Of the 5 who were known to us, 1 died from cerebro-spinal meningitis, 1 from lepto-meningitis (congenital syphilis), 1 from rheumatic heart disease *, another from rheumatic heart disease *, and 1 from pneumonia.

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‡ This child had had ear disease.
× This child suffered from ear disease secondary to adenoids.

Deaths Between the Seventeenth and the Twentieth Year

4 such deaths occurred, against 5 for last year. 3 were males and 1 female. All of these cases were known to us. 1 died of rheumatic heart disease*, 1 of fractured skull (train accident), 1 of acute ex-ophthalmic goitre and 1 of lymphadenoma.

Deaths Between the Twentieth and the Twenty-Fifth Year.

There were 17 such deaths, against 13 for last year. 11 were males and 6 females. 8 of the cases were not known to us. Of these, 2 died from diphtheria, 2 from pulmonary tuberculosis, 1 from intestinal obstruction (band from antecedent appendicectomy), 1 from pulmonary abscess (? pneumonic), 1 from appendicitis and 1 from polio-myelitis. This last case died outside the Borough of Swindon and nothing is known about it or about its history.

Of the 9 whose histories are known to us, 1 died of cerebral haemorrhage (P.M.), 1 of tuberculous pleurisy, 1 of diabetes and tuberculosis, the former being the primary disease, 1 of rheumatic heart disease, another of rheumatic heart disease*, 2 from tuberculosis of the lungs, 1 from middle ear disease and 1 from appendicitis.

Table Showing the Causes of Deaths of Children under 25 years of age in the Borough of Swindon during the Year 1933.

CAUSE.	0-1	1-2	2-5	5-10	10-17	17-20	Total under 20	20-25
Congenital Ante-natal & Natal Defects and Injuries :								
Intercranial Injuries	—	—	—	—	—	—	—	—
Abnormal Labour (Asphyxia)	—	—	—	—	—	—	—	—
Non-viable Monsters	—	—	—	—	—	—	—	—
Congenital Defects	6	—	2	—	—	—	8	—
Congenital Syphilis	—	—	—	—	1	—	1	—
Jaundice	—	—	—	—	—	—	—	—
Purpura	—	—	—	—	—	—	—	—
Unknown	17	—	—	—	—	—	17	—
Post-natal Diseases :								
Whooping Cough	9	3	3	—	—	—	15	—
Measles	—	—	—	—	—	—	—	—
Influenza	1	1	—	—	—	—	2	—
Pneumonia	1	2	1*	—	1	—	5	1
Diphtheria	—	—	5	3	—	—	8	2
Polio-myelitis	—	—	—	—	—	—	—	1
Rheumatic Infection and Sequelae	—	—	—	—	2	1	3	2
Erysipelas	2	—	—	—	—	—	2	—
Pulmonary Tuberculosis	—	—	—	—	—	—	—	5
Tuberculous Meningitis	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	—	—
Meningitis following Ear Disease	—	—	—	—	—	—	—	1
Cerebro-spinal Meningitis	1	—	—	1	2	—	4	—
Bronchitis	1	—	—	—	—	—	1	—
Diabetes	—	—	—	—	—	—	—	1
Ex-ophthalmic Goitre	—	—	—	—	—	1	1	—
Lymphadenoma	—	—	—	—	—	1	1	—
Appendicitis	—	—	—	—	—	—	—	3
Cerebral Haemorrhage	—	—	—	—	—	—	—	1
Spastic Paraplegia (Post Encephalitis Lethargica)	—	—	1	—	—	—	1	—
Scurvy	1	—	—	—	—	—	1	—
Illfeeding	—	—	—	—	—	—	—	—
Street Accidents	—	—	1	1	—	—	2	—
Train Accidents	—	—	—	—	—	1	1	—
Drowned	—	—	1	1	—	—	2	—
Suffocated in bed	1	1	—	—	—	—	2	—
TOTALS	40	7	14	6	6	4	77	17

* This was a case of pneumococcal peritonitis.

NOTE— The death of every child under the age of 25 years is made the subject of inquiry, in which all matters connected with the medical history of the child are considered and from the available evidence the conclusion is drawn as to what was the main factor which destroyed life. In the above table the deaths are given in accordance with these findings. They agree in number, but not in causes of death, with the official records.

Several matters in connection with the Maternity and Child Welfare Department call for comment. The most striking matter in 1933 was the precipitate fall in the birth rate. The number of births registered in the town was the lowest for very many years and gave a birth rate of 12.48, which is 1.83 below that of last year and 1.5 below that of 1929, which was the town's low record. Births were particularly scanty in the late Autumn months and it is possible that this may have been due to influenza in February. We have noticed locally that an outbreak of influenza is followed by a low birth rate some six to ten months later. This suggests that influenza, even when not very serious, may interfere with impregnation, or prevent implacement of the fertilized ovum, or lead to its separation and death. Severe influenza is known to produce premature delivery, but it is then generally fatal to the mother and average influenza does not produce emptying of the uterus in women in advanced pregnancy. If there is anything in this suggestion, evidence of it will be available from many districts where influenza occurred in February, 1933. If, however, the fall of the birth rate in 1933 is not due to any specific or temporary cause, but is continued, it will soon produce marked repercussions on the whole maternity and child welfare service and eventually upon all the social problems of the town.

A curiosity of the 1933 statistics is the relatively large number of deaths of girls aged 1 to 17 (24 females to 9 males). It is to be noted that two of the most frequent causes of death in 1933 were diphtheria and whooping cough, both of which have a higher fatality in girls than in boys.

Infantile scurvy is undoubtedly increasing in incidence. Every year we see some cases of infantile scurvy, generally not very marked, but last year we saw eight, which is a record and of these one was fatal. On the other hand, congenital syphilis is very distinctly falling in incidence and rickets, though it remains fairly constant in incidence, is falling in severity.

An unusual number of mentally defective infants is seen at Swindon Infant Clinics. Many of these come from outlying districts, because it is known somewhat widely that we take considerable interest in these unfortunate individuals. All but the highest grades of mental defection can be recognized very early in life; idiocy and imbecility being readily diagnosed within the second month of life, provided, of course, that the condition dates from birth or the first few weeks of life, which it generally does. There is not much hope of cure and very little of improvement for the majority of low grade mentally defectives, but some

cases of secondary amentia, if recognized very early and their cause determined, do offer some hope of substantial amelioration, in the same way that some cases of potential squint, nystagmus and amblyopia can be cured in the clinical meaning of that word, if they are recognized at the beginning and their causes, or some of them, determined. It will be noted that in the chapter on child deaths, those children who in life were physically defective are indicated with a * and those who were mentally defective by a †. Mental defection is not a commonly recognized cause of death and seldom, if ever, appears on the death certificate, but the death rate of mentally defective infants is very high indeed. At least 66% of Mongols die before they are five years old.

Two tables of infantile mortality are given in the report. The first is the official table cast from the Registrar General's returns, the second is a special table which we include every year, which is cast upon our knowledge of the life histories and of facts connected with the deaths of the deceased which will not be known to the Registrar. These tables agree in numbers, but differ markedly in the causes of death. It has been computed that the official death register is never more than 40 per cent. accurate as regards the causes of death and as regards the causes of deaths of infants it is completely unreliable. We maintain that the table which we show is at least 90 per cent. reliable, but it must be admitted that we have one 'cause' of death which gets us out of difficulty which the Registrar does not admit. This is 'Unknown' and replaces indefinite causes such as premature birth, atrophy, debility, marasmus, atelectasis, convulsions, gastritis, etc., which do not appear in our list. It is rarely possible in children who die within the first week of life to find any factor to which the failure to survive can be ascribed. In a small proportion of cases some cause can be discovered on post mortem examination which was not recognized during life, but more often post-mortem examination throws little real light upon the problem. It is our lack of knowledge of the causes which interfere with the survival of so many newcomers into the World which stands in the way of our reducing the mortality of the first month of life in any way comparable with the reduction that we have made in those who survive the first month. A large number of these young infants who die are born prematurely, but it is merely quibbling to assign their deaths to prematurity, for obviously if prematurity of itself reduces the chance of survival, the cause of the death of premature infants who die is the cause of their prematurity and it is only very rarely that this can be determined.

Lastly it may be noted that in 1933 not a single infant death is accredited to ill-feeding. One has a suspicion—and it is not altogether a comforting one—that the tremendous reduction of

infantile mortality during the present century resolves itself into the elimination of deaths from ill-feeding and from epidemic diarrhoea. For the former, credit must be given to infant welfare in the broadest sense in which that word can be used and for the latter the substitution of the horse by the motor car. There has been undoubtedly a decrease in the fatality of measles, a less marked decrease in the fatality of whooping cough, a marked decrease in the deaths from rickets and an almost complete abolition of deaths from scarlet fever, but the improvement in rickets is entirely due to improvement in feeding, the lessened fatality of scarlet fever is an epidemiological phenomenon for which no man can claim any credit and the reductions of fatality in measles and whooping cough are, in part, epidemiological phenomena, possibly connected with periodicity and most certainly with herd spacing. Only to a very minor degree, can we attribute these improvements to better management. The fall in the mortality of tuberculosis in infants is to a large extent due to more accurate death certification, though some of it is genuine enough and a considerable part of the lowering of fatality of surgical tuberculosis in older children can be claimed legitimately by the advance in preventive and curative medicine.

Infection and Epidemiology.

EPIDEMIOLOGY.

The epidemiology of Swindon in 1933 was not interesting, which is much the same as saying that conditions were highly favourable. The year saw the end of an epidemic of diphtheria which had started in 1930. Whooping cough was severe and gave us 15 deaths, making it the most prominent disease of infancy in the year. There were four deaths from cerebro-spinal fever.

The epidemic situation in January was moderately favourable. There was some minor influenza about, but very few cases that were at all severe. Diphtheria was still epidemic, but for the time being had quieted a little. Whooping cough was troublesome, but otherwise there was nothing either present or threatening.

February was distinctly a good month. The town's dose of influenza, which in some parts of the country had been very serious, was negligible and we can trace no influence of influenza upon the local mortality. This was in accordance with expectations. Diphtheria still continued epidemic, otherwise there was nothing present or threatening.

March was another favourable month. Diphtheria was slightly less prevalent and otherwise there was nothing either present or threatening. We were, however, beginning to puzzle as to what had become of the scarlet fever epidemic which was expected in the previous Autumn. There was absolutely nothing to suggest its approach.

April was another favourable month, though scarlet fever began to put in a belated and bedraggled existence. A small outbreak of measles occurred in the local hospital, introduced from an outside source. It did not spread to the town. Whooping cough, however, had become more serious. An important matter in April was the occurrence of three cases of cerebro-spinal meningitis. Epidemic prevalence of cerebro-spinal was expected in 1933, but in a small district like Swindon an 'epidemic' of cerebro-spinal rarely means more than a few isolated cases and nothing more than this was expected. The influenza situation about this time of the year suggested to us that the disease might become serious in the following November. It may be stated straight away that this forecast was an error; there was no influenza worth speaking about in Swindon in the Autumn of 1933. The chief point which raised our suspicions that the disease might be serious in the Autumn was the occurrence of several bouts of influenza in the Maternity Home.

In May there was a very sharp local outbreak of diphtheria. It was short-lived and localized, but the cases were very severe. From the epidemic situation of Swindon as regards diphtheria at the time, an extensive spread of the disease was impossible and it is interesting to record that the two local outbreaks in May occurred in two small parts of the town which had so far escaped the epidemic prevalence of the disease. There was a somewhat high incidence of pneumonia in May. Most of the pneumonias were influenza and none of them was of the June epidemic type which is to be expected in the early Summer. There was a good deal of mild indefinite illness about the town, accompanied by fever. We are suspicious that this was due to injudicious light therapy, as the unusual warmth of the weather had led a very large number of people to over-expose themselves to the unusual amount of light.

In June and July the epidemic state of the town was favourable and there were signs that the long epidemic of diphtheria was abating. There were, however, two further cases of cerebro-spinal meningitis and a few cases of fatal influenzal pneumonia.

For August there is nothing to report. There was a case of polio-myelitis notified, but the case was a visitor to the town and left us shortly after the disease started. It eventually ended fatally.

In September there was some deterioration in the health of the town, but there was nothing very obvious. The most remarkable matter about this time of the year was the unprecedented fall in the birth rate.

In October there was nothing to report except a slight increase in the prevalence of scarlet fever, which did not suggest an approaching epidemic.

In November there was a little more scarlet fever, otherwise nothing. On theoretical grounds we should have had an epidemic of measles starting in December, but the condition of the town in November was such that we felt perfectly certain that this would not materialize and it did not, for we had no measles in December. As a matter of fact there was nothing in December of any epidemiological interest.

The year ended calmly. There was a certainty that diphtheria would be low in the new year. There was no evidence of any kind to suggest that we should get influenza in the early part of 1934. There was no measles and though there had been a slight increase in scarlet fever, there was nothing to suggest that the long expected epidemic would put in an appearance.

DIPHTHERIA.

The theoretical expectation for diphtheria in 1933 was 270 notifications with 7 deaths. The actual figures were 149 notifications with 9 deaths. Of the 149 cases notified, 17 were errors of diagnosis and 10 were bacteriological cases, so the actual incidence of true diphtheria was 122 with 9 deaths, which gives a true fatality rate of 7.4. This is distinctly high, but the tendency of diphtheria everywhere in the present decade has been in the direction of an enhanced fatality.

In working out the theoretical expectation of diphtheria, account must be taken of persons artificially immunized. Working on Percy Stocks's hypothesis it would seem reasonable to reduce the expectation of diphtheria by one-tenth of the number of cases immunized, but since immunization is mainly practised upon children in the most susceptible age, it is probable that a better working figure would be a reduction of expectation by 20 per cent. of immunized cases. 172 children in Swindon have been immunized, so that the expectation of notifications of diphtheria in 1933 would be 236. There is, therefore, a residue of 87 to be carried over to next year. As this is spread over a ten year period it means that the incidence of diphtheria in Swindon during the past decade is short of the maximum expectation by roughly 8 cases a year, a figure which is nearly negligible. The town, therefore should be, for the time being, almost immune to diphtheria.

SCARLET FEVER AND OTHER DISEASES CAUSED BY HAEMOLYTIC STREPTOCOCCI.

59 cases of scarlet fever were notified in Swindon, with no deaths. The cases were, in general, extremely mild, but a few of them were rather more important (see Isolation Hospital report).

There is nothing particular to be said about the other diseases caused by haemolytic streptococci. There were 14 cases of erysipelas with 4 deaths and 51 cases of puerperal pyrexia with 3 deaths. One of these deaths might have been due to haemolytic streptococci, the other two certainly were not.

THE PNEUMONIAS.

There were 147 notifications of pneumonia, a number which is below the average, with 35 deaths, which is the smallest number which we have had since 1923. 25 cases were treated in the Isolation Hospital with 4 deaths, giving a fatality rate of 16% and 122 were treated at home with 31 deaths, giving a fatality rate of 25%.

For the purposes of epidemiology it is of the utmost consequence to differentiate the pneumonias into types, both clinical and bacteriological, but at present this is only possible in connection with cases treated in hospital. The pneumonias are far and away the most important of all the epidemic diseases of mankind and the deaths from them exceed in number those from all other notifiable diseases with the exception of tuberculosis, yet of all preventable diseases the pneumonias have received the least attention. Of recent years, however, some interest in the pneumonias has been taken in America, in Scotland and in certain tropical countries, so that it is not impossible that ere long the greatest killing disease of the present day—and the only big killer that offers reasonable hope of being subjected—may receive some of the attention which is at present bestowed on matters of no particular consequence.

The neglect of pneumonia, particularly in England, is, to some extent, the outcome of the history of English sanitation. In the nineteenth century the prevention of disease was visualized in a very narrow field and though during the present century preventive medicine has become a highly complicated science with almost boundless possibilities, its drift is but ill-understood, except by a few of our leading epidemiologists. Because it is uncommon, though by no means as uncommon as it is supposed to be, to see pneumonia spread from one person to another, even the infective character of the pneumonias has been disputed and the pneumonias are still classified as local diseases of the respiratory organs, whatever that may mean. The true position of the pneumonias is probably between the diseases caused by the haemolytic streptococci and the plagues (Pasteurella.)

THE PNEUMONIAS.

The statistics for Pneumonia for the past thirteen years are as follows:—

Year.	Total No. of cases notified.	Total No. of deaths.	Cases removed to Hospital			Cases treated at Home.		
			No.	Deaths	Death Rate	No.	Deaths.	Death Rate.
1921	36	19	....	....	....	36	19	52
1922	156	43	1	0	0	155	43	27
1923	68	28	12	0	0	56	28	50
1924	175	62	31	5	16	144	57	46
1925	204	61	50	10	20	154	51	33
1926	172	52	27	6	22	145	46	32
1927	202	58	63	14	22	139	44	31
1928	204	53	66	16	24	138	37	27
1929	176	54	52	11	21	124	43	34
1930	105	40	44	12	27	61	28	46
1931	143	37	50	8	16	93	29	31
1932	182	44	53	9	17	129	35	27
1933	147	35	25	4	16	122	31	25
13 years	1970	586	474	95	20	1496	491	32.8

THE INFECTIONS DUE TO PARASITES BELONGING TO THE GENUS BACTERIUM.

For the fifth year in succession there were no cases in Swindon of disease caused by this genus of organisms. The group includes typhoid, the paratyphoids, the food poisonings (Salmonella) and the dysenteries. Whether infections believed to be caused by bacterium coli are to be included in this group is open to question, for though the colon organism belongs to the genus BACTERIUM, many epidemiologists question whether that organism of itself is really capable of producing the diseases which are attributed to it. As the reservoir for this organism is carried about by every vertebrate animal, it is obvious that whatever the true epidemiology of colon BACTERIUM disease may be, it is fundamentally different from that of any other parasitic disease.

The case notified in Swindon as enteric fever was not enteric, but influenzal pneumonia.

THE VIRUS DISEASES.

With the exception of chickenpox, there were no virus diseases occurring in Swindon in 1933. One case of polio-myelitis in a temporary visitor was notified and one death is attributed to encephalitis lethargica. Five cases of cerebro-spinal meningitis were notified, of which four ended fatally. No epidemiological connection between the cases could be traced. There was no case of undulant fever in Swindon in 1933, though the possibility of this disease was raised in several cases. In all, however, it was excluded by serology.

THE NON-NOTIFIABLE INFECTIOUS DISEASES.

There were a few sporadic cases of measles, none fatal, and a trivial epidemic of the disease in the local hospital introduced by a child who was not a native of the town. There were no deaths from measles.

Whooping cough was severe and irregularly spread all through the year. It caused 15 deaths.

Influenza in Swindon in 1933 was negligible.

TUBERCULOSIS.

1933 was, in Swindon, a favourable year for tuberculosis, as will be seen from the tables at the end of the report (pages 74 & 75). The tuberculosis death rate, 0.64 per 1,000, is the lowest but one in the history of the Borough.

Tuberculosis mortality is best expressed in terms of deaths from the disease per million living, for this gives us round figures which are more easily understood than figures containing decimals, especially when the first figure is zero. Expressed in this way our respiratory tuberculosis mortality in 1933 was 570. The figure for England and Wales is not yet available, but may be expected to be in the neighbourhood of 690. The very convenient figure of 1,000 may be looked upon as a standard index of respiratory tuberculosis mortality, any rates above this calling for a searching inquiry. The Swindon figure is little more than half this and must, therefore, be considered satisfactory.

The most important figure in the tuberculosis returns is that of the notifications of respiratory tuberculosis, for this tells us the amount of new disease of serious consequence. The figure for other forms of tuberculosis is not so valuable, because, though it includes many cases of importance, it is apt to be swollen by cases which are not of clinical significance.

The incidence of tuberculous meningitis is a matter which is assuming a particular value in the solution of the acute infections of the nervous system. As this form of disease is practically always fatal the notifications and deaths are similar. The incidence of this disease appears to rise and fall, not only in conformity with the rise and fall of tuberculosis, but with the rise and fall of other acute infections of the central nervous system.

No action was taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, as no cause for action occurred, and no action was taken under the Public Health Act, 1925, Section 62.

VACCINATION.

No vaccinations or revaccinations were done by the Public Health Department during 1933.

CANCER.

71 deaths occurred from cancer, 35 males and 36 females, against 101, 98, 97 and 91 in the four preceding years. We must go back to 1923 to find a year with fewer deaths from cancer and to 1921 to find a year with a lower cancer death rate.

If the aging of the population is taken into account, the fall in cancer is more marked than the actual figures indicate and is very considerable. To what the fall is due, whether it is a matter

of pure chance, or has some real meaning, no one can say at present, but it certainly seems, not only in Swindon but elsewhere, that the rapid increase in cancer which occurred in the last decade is becoming reversed and that the disease is not only not increasing, but is actually declining.

DIABETES.

There were 7 deaths from diabetes in 1933, against 5 and 14 for the two preceding years. Of the 7 deaths, 5 were females. It has been characteristic of the vital statistics for the past twenty years that deaths from diabetes have become more common in females and occur generally at a later age in life.

The increased length of life of diabetics is undoubtedly, in part, due to the improvement of treatment, for the modern treatment of this disease can, in theory, keep most diabetics living indefinitely, though it does not cure them. The explanation of the increased relative incidence of diabetes in females has not been explained. Up to the middle of the nineteenth century diabetes was much more common in males than in females, now the reverse is the case.

As we know nothing acceptable of the causation of diabetes, it is idle to speculate on the meanings of its shifting incidence. As diabetes goes up as a major killing disease, chronic Bright's disease goes down. Whether there is any connection epidemiologically between diabetes and Bright's disease is at present open to discussion. We are almost, but not quite, as ignorant of the causes of Bright's disease as we are of those of diabetes. Vaguely both diseases are connected with metabolism, so that it is not unlikely that there is some indirect connection between them.

GENERAL OBSERVATIONS ON MORTALITY STATISTICS.

The deaths from heart disease were 74 males and 89 females, from cerebral haemorrhage etc. 17 males and 30 females and from other circulatory diseases 20 males and 8 females, so that altogether 238 out of the 679 deaths in Swindon in 1933 were attributed to disease of the cardio-vascular system. This group cause of deaths has for many years been increasing rapidly and in magnitude takes preference of all others. It is well, however, to remember that these diseases are, in the main, terminations of the process of degeneration which is common to all of us and for public health purposes the great majority of deaths attributed to these causes might properly be put back again into the category of senility; but not all, because though most cardio-vascular diseases are due to the degeneration of age, some are the remote effects of infections, particularly syphilis and rheumatism, and these are of great public health importance.

It is a matter of controversy whether the degeneration of age which is universally observed in man is, or is not, a natural process inseparable from organic life. Animals kept in captivity and nearly all plants which are sexed show the same senile process as does man, but this is less universally observed amongst wild animals for the very obvious reason that nearly all animals, when their strength begins to fail, fall victims to others, or die from starvation. There are some animals which, so far as we know, grow throughout their entire existence. All animals showing this phenomenon are of great, usually huge, bulk and it is reasonable to suppose that as they get more bulky the struggle for existence becomes impossible and that they die before reaching maturity.

That degeneration is hastened by adverse environmental factors is not questioned, so that most of us who die from senility do really die from a premature senility, but there is nothing known to biologists to suggest that a sexed animal is other than a temporary link in the chain of life. Certain rejuvenating processes are being, or have been, tried, but, so far as I have any acquaintance with them, all appear to be rapidly fatal.

The history of Public Health during the past seventy years has shown a steady increase in the average length of life, but there is no increase in the length of life of those who reach the age of sixty years; for though there is some reason for fixing the theoretical length of life of man at about 120 years, up to the present we have not found any way of increasing it beyond three score years and ten, which remains the official index.

If we take out of the mortality table deaths from heart disease, cerebral haemorrhage, other circulatory diseases, congenital debility etc., senility, suicide and violence, the other causes of death are, in theory, preventable, but the majority of them are preventable only in theory. It is clear that as we reduce the preventable causes of mortality we must increase relatively the unavoidable causes, that is presuming that we are all going to die, so that in utilizing the mortality table as an index to the health of a population, more attention must be paid to the differential incidence of the various causes of death than to the actual number of deaths itself.

The number of births accredited to Swindon in 1933 was 388 males and 378 females and the number that died 350 males and 329 females, so that the natural increase of the population was 38 males and 49 females; but migration was against us, so that our accredited population has fallen to 61,390, which is 600 less than that of last year.

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Medical Officer of Health.

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Swindon.

DIPHTHERIA IMMUNIZATION.

(By J. STEVENSON LOGAN, Deputy Medical Officer of Health).

During the year 99 new cases attended the clinic. No propaganda has been undertaken, and in the circumstances this figure must be regarded as satisfactory. We have noticed that the occurrence of cases of diphtheria in a school is usually followed by requests for immunization from the area served by the school, but the numbers seeking protection fall off rapidly and the parents cease to trouble themselves when the danger seems over.

In common with other schools, cases of diphtheria were notified from Clarence Street School. As usual the requests for immunization increased, but the demand has been much better sustained than we hoped for. On analysis most of the immunized children come from a few areas which form clearly defined social units. These consist of a high proportion of post-war houses, practically all of which are owned by their occupiers who appear to be employed largely in clerical work or else are superior artisans. The families are small and invariably young.

Ideas can be no less infective than disease and it would appear in these areas the parents are alive to their responsibilities and are anxious to make use of the newer knowledge. It is obvious that the parents discuss the question among themselves, and the absence of reactions and the simplicity of the method, have commended the practice of immunization to them.

From the tables given below it will be seen that of 54 "Posterior" Schick tests, 51 were negative. On the highest computation this means that less than 6% of our children failed to become non-reactors after the course of three injections. It might be argued that as 20 of these children were not tested for susceptibility before they were "immunized" that some of them may have been Schick-negative originally.

Our figures suggest that there is little danger of this fallacy arising, as no child over the age of 7 has been immunized without an Anterior Schick test, while since 1930, 84 children under the age of 7 years have been Schick tested and only 5 have not reacted. These 5 cases are not without interest. One of them had had diphtheria, two of them were contacts with a recent case, and of the two others, one child lost a brother from the disease in 1929, and the other a sister after tracheotomy in 1931. Unless there has been a sudden, dramatic and entirely unsuspected increase in herd immunity, we must continue to assume that nearly all Swindon children under the age of 7 are Schick positive.

There have been two cases in which reactions have followed the injection of T.A.M., one case a child of 4 was reported to have been ill after the first dose of T.A.M. and did not return. A reaction in a child so young is unusual. The other case is much better authenticated. The child, aged 10 years, had well marked constitutional disturbance with pyrexia after each of the three doses. There appeared to be no diminution in the reactions although the dose remained constant.

Two cases of diphtheria were notified in children who had been "immunized", one of a child who was Schick negative in 1931 and the other of a child who was immunized during March and April 1932, and who was Schick negative in November of that year. The first case is described as " diphtheria of the mildest character ". Other members of the same family suffered from septic throats for some weeks at this time and from none of them was K.L.B. ever grown. The second case was also regarded as mild, the child being in hospital only for three weeks. Unfortunately, the virulence of the organism was not established, and when the importance of this was realised it was too late to do anything in this direction.

SUMMARY.

No. of new patients attending during the year	99
No. of " Anterior " Schick tests performed	82
No. of injections given	289
No. completing the course during the year	83
No. failing to complete course	7
No. of Posterior Schick tests performed	54
,, ,, ,, Negative	51
,, ,, ,, Positive	1
,, ,, ,, Doubtful	1
,, ,, ,, Defaulted	1

Four " Posterior Schick " tests were done in addition to those shewn above. Three were on children who had already been immunized by other authorities, and one on a child who had had a clinical attack of diphtheria.

J. STEVENSON LOGAN,
Deputy Medical Officer of Health.

ISOLATION HOSPITAL, GORSE HILL.

ANNUAL REPORT

From 1st April, 1933, to 31st March, 1934.

ISOLATION HOSPITAL.

The Isolation Hospital year runs from the 1st April to the 31st March, and it is advisable to keep to this year, because, as the Hospital caters for a large area outside the Borough boundary, its report could not be made to fit in entirely with the report for the Borough, whereas, by carrying on the Hospital year three months beyond the end of the calendar year, it is possible to get a better retrospective view of the epidemiology of the last quarter, and a break at the end of March is least disturbing to the history of epidemiology.

The Hospital at present accepts for treatment persons suffering from any form of notifiable disease, except smallpox and tuberculosis, and also from any infectious condition which is not notifiable at the discretion of the Medical Superintendent. Also, for administrative reasons, it accepts cases of incomplete abortion, whether these are septic or not.

The Hospital normally serves the Borough of Swindon and the Rural Districts of Highworth and Cricklade and Wootton Bassett, but it relieves other parts of the County should the local accommodation for infectious disease be overstrained. It also admits from districts other than its own, cases which are not normally admissible to the smaller fever hospitals, particularly cases of puerperal pyrexia.

In the early months of 1934 an epidemic of scarlet fever occurred in the Marlborough district and as the local hospital in Marlborough could not accommodate all the cases requiring hospital treatment, some of them were admitted to Gorse Hill. Towards the end of this epidemic the Wilts County Council opened the Hospital at Ogbourne to receive convalescents from scarlet fever and the Marlborough cases which had been treated in Gorse Hill during the acute stage of scarlet fever were transferred to Ogbourne to complete their convalescence.

BACTERIOLOGICAL DEPARTMENT.

Excluding the bacteriological and pathological work of the Hospital itself, diphtheria swabs from the town and outlying district are cultured and examined at Gorse Hill,as well as at the Health Office in Eastcott Hill. During the year 1933-34 389 swabs were examined on behalf of the Hospital and 785 on behalf of Swindon Borough and the surrounding rural sanitary authorities.

AMBULANCE SERVICE.

A new motor ambulance of a modified L.C.C. pattern on the Talbot chassis was purchased during the year and for general town work superseded the old Ford ambulance. The Ford ambulance was re-conditioned and now serves mainly for the conveyance of articles to be disinfected and for the purposes of

the laundry, though it is available for the removal of patients in emergency. We now possess three working ambulances, two of which are modern vehicles in first class condition.

During the year under review, the following journeys were made :—

Transport of infectious cases	327
Transport of non-infectious cases	644
Transport of bedding for disinfection	227

The ambulance service is a complete 24 hour one and is run in conformation with circular 1356 of the Ministry of Health.

HOSPITAL SERVICE.

The number of new admissions during the year 1st April, 1933, to 31st March, 1934, was 366, against 412, 321 and 330 for the three preceding years. The admissions were about average in number and also about average in severity. In the first part of the year diphtheria was the predominant disease and in the latter part of the year scarlet fever, though throughout the year there was much variety of clinical material.

On the 1st April, 1933, 23 patients remained under treatment in Hospital, so that altogether 389 cases were under treatment during the year. Of these :—

316 were discharged cured,
1 was transferred to Devizes Mental Hospital,
1 was transferred to Victoria Hospital,
4 were transferred to Stratton Institution,
8 were transferred to Ogbourne Convalescent Hospital,
1 was sent home at own request,
23 died, and
35 remained in Hospital on 31-3-34.

The new admissions were received under the following notifications or descriptions :—

Scarlet Fever	122
Diphtheria	138
Pneumonia	51
Puerperal Pyrexia	15
Babies with Mothers	15
Abortion	3
Erysipelas	12
Cerebro-spinal Meningitis	5
Polio-Myelitis	1
Continued Fever	1
Measles	1
Whooping Cough	1
Chickenpox	1

The 389 cases arranged according to their final diagnoses were :

Scarlet Fever	120
Diphtheria	128
Diphtheria and Scarlet Fever	1
Diphtheria incubating Measles	2
Diphtheria and Whooping Cough	1
Scarlet Fever (Puerperal Pyrexia)	1
Scarlet Fever and Chickenpox	1
Pneumonia	40
Puerperal Pyrexia	22
Babies with Mothers	16
Erysipelas	13
Cerebro-spinal Meningitis	6
Polio-myelitis	1
Tonsillitis	18
Laryngitis	2
Measles	2
Influenza	1
Pleurisy	3
Chronic Bronchitis	1
Gonorrhoeal Ophthalmia	1
Chickenpox	1
Scurvy	1
Glandular Fever	1
Asthma	1
Cellulitis	1
Hysteria	1
Morphinism	1
Constipation	1
No obvious disease	1

The 366 cases admitted during the year were chargeable to the following local authorities :—

Public Health Acts :

Swindon Borough	256
Highworth Rural District	51
Cricklade and Wootton Bassett Rural District	32
Marlborough Rural District	12
Ramsbury Rural District	1

Maternity and Child Welfare Act (Puerperal Cases) :

Wilts County Council	14

DIPHTHERIA.

There were 128 cases of pure diphtheria, 1 of diphtheria and scarlet fever, 2 of diphtheria and measles and 1 of diphtheria and whooping cough, making a total of 132 cases of diphtheria treated throughout the year. Of these, 12 were bacteriological cases, leaving 120 cases of true clinical diphtheria. Of these, 7 died, giving a true fatality rate of 5.8%. This fatality is high, though it is about the average for the last few years.

Of the cases that died, one was a haemorrhagic case admitted moribund; one was croupy, but died of heart failure, not of croup; four died of middle period heart failure and one died of general paralysis affecting the diaphragm. There were three cases of croup, one of which died and one developed pharyngeal paralysis. The remaining cases were about average for complications, but the type generally was severe.

During the Hospital year 1933-34 we were dealing with the last phase of a great epidemic in Swindon Borough which lasted from the middle of 1930 to the middle of 1933. Both for numbers and severity this was the most formidable epidemic of diphtheria in the history of the Borough.

THE PNEUMONIAS.

There were 40 cases of pneumonia, but to these must be added 3 cases of pneumonia which are included in the puerperal pyrexias, giving a total of 43, arranged under the following varieties:—

Variety.	Cases	Re-cover'd	Died.
Croupous type	16	14	2
June epidemic type	7	7	—
Influenzal type	7	5	2
Broncho pneumonia of uncertain type	7	7	—
Measles pneumonia	1	1	—
Whooping cough pneumonia	2	2	—
Pleuro pneumonic type	1	1	—
Asthma pneumonia	1	1	—
Pneumonia of uncertain type	1	—	1
TOTALS	43	38	5

The death rate from pneumonia was, therefore 11.6%, which is extremely favourable.

Three of the cases were puerperal. In these pneumonia was the cause either of abortion or miscarriage. All three cases recovered. It is our experience that delivery occurring within the course of acute pneumonia and influenza has no influence upon the prognosis, nor has the primary disease any influence upon the physiology of the puerperium.

Broncho pneumonia of uncertain type includes all cases of broncho pnuemonia in children which cannot be attributed to measles, whooping cough, scurvy, or rickets. The precise pathology of these cases is doubtful.

Seven cases of pneumonia were treated with Felton's units, of whom five died and two recovered and one case was treated by the Italian method of puncture and that case recovered. These results are highly favourable, for it is certain that without the treatment all eight cases would have died. No form of specific treatment other than Felton's units and puncture is used, as no other form of treatment in our experience has the smallest influence for good upon the course of pneumonia. All cases of pneumonia require exceedingly careful nursing, good hygienic management and the promotion of sleep, should this be necessary. For the last the only medicinal agent used is paraldehyde and, occasionally, morphia.

Considerable interest centres round the June epidemic type of pneumonia, from which recovery is invariable if it is left alone. It is probably right to consider this as a normal physiological reaction to infection with Type 1 pneumococcus, probably in persons who first become acquainted with this type after the end of lactation. There is reason to think that usually in a civilised community the human infant makes his first acquaintance with the various types of pneumococcus during the puerperium of the mother, from whom he derives the infection. The commonest reaction at this age is a minor degree of ophthalmia. This is a possible explanation why not more than about 10 per cent. of us die of pneumonia until old age. It is only of recent years that attention has been paid to the epidemiology of the pneumonias and even at the present time such attention is almost limited to Scotland and the United States, but in the future we shall probably recognize that the symbiosis between man and those types of pneumococcus which are specifically parasitic upon man is the most important of all forms of human symbioses.

SCARLET FEVER.

Altogether 123 cases of scarlet fever were under treatment during the year. One case, a boy suffering from severe congenital heart disease, died while convalescing from scarlet fever. The

cause of death was pulmonary infarction and was not connected with the scarlet fever.

We were expecting an epidemic of scarlet fever in the Borough not later than the Autumn of 1933, but this did not materialize and the majority of the scarlet fever cases treated in the Hospital came from without the Borough.

Though most of the cases were benign, in fact so trivial that had they not been labelled with a name which is more frightening than the disease itself, they might have been ignored without any detriment and probably without danger to others, a few were by no means trivial and suggested that scarlet fever may be increasing in virulence.

For many years scarlet fever has been highly prevalent throughout the North Temperate Zone, but, except in the South East of Europe, its type has been generally so mild that it has had little influence on the general mortality. This great pandemic had varied from year to year and, during the past few months, has reached an incidence which is higher than ever, but its fatality rate has not increased ; in fact in every part of the World, except South Eastern Europe, where a severe type still continues, fatality rates above 1% have been exceptional. This certainly does not suggest that the virulence of the disease is heightening, but when the returns are dissected some matters can be detected which are not favourable.

Of the 123 cases which were treated in Swindon Isolation Hospital, only 14 were treated with anti-toxin, which means that the remaining 109 were so trivial that they were not worth the expense of the remedy. Of the 14 treated with anti-toxin, 3 were of the septic variety ; 8 developed otorrhoea, 1 nephritis, 1 mastoid disease, 1 relapsed and 1 had pneumonia, pericarditis and endocarditis. All of these recovered. None of the remaining 109 had any complications.

PUERPERAL PYREXIA.

22 puerperal cases were treated during the year, of which 2 died. One of these was a case of bacterium coli septicaemia with peritonitis and the other a case of abortion occurring within the course of influenza. This woman had influenzal pneumonia of the violet type, but she did not die in the acute stage, as such cases usually do. Some four weeks after the beginning of the disease she developed an empyema, which cleared up under treatment, but seven weeks from the onset of the influenza she died from auricular fibrillation. The abortion was complete and simple, it occurred on the third day of the influenza and at no time was there any evidence of uterine infection.

There was one case of scarlet fever occurring in the puerperium. The scarlet fever had no influence on the course of the puerperium, nor did the puerperium have any influence on the course of the scarlet fever. One was a case of abortion occurring in a primary anaemia. Another was a case of confusional insanity which was treated in the Isolation Hospital for a few days and then removed to a mental hospital. This was a case of relapsing insanity, the present attack starting on the fourteenth day after delivery. There was one case of croupous pneumonia occurring late in the puerperium ; one of gonorrhoea of the cervix and pyelitis ; one of phlebitis, one of the June epidemic type of pneumonia occurring in the puerperium, and one of influenzal pneumonia occurring in the puerperium. The remainder were cases of decomposition within the uterus.

DEATHS IN THE HOSPITAL.

23 patients died ; 7 from diphtheria, 5 from cerebro-spinal meningitis, 5 from pneumonia, 2 from puerperal pyrexia, 2 from erysipelas, 1 from congenital heart disease in the course of scarlet fever, and 1 infant, cause of death doubtful.

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BOROUGH OF SWINDON.

GENERAL STATISTICS.

Area (acres)	6021
Population : Census 1931	62407
Estd. middle of 1933	61390
Number of inhabited houses (1933)	16226
Rateable Value (General Rate)	£328,540
Sum represented by a penny rate	£1,326

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		Total	M.	F.	
Births :	Legitimate	736	379	357	
	Illegitimate	30	9	21	Birth Rate 12.48
Stillbirths :	Legitimate	31	11	20	Stillbirth Rate per
	Illegitimate	2	1	1	1000 births (Live and Still) 41.30
Deaths		679	350	329	Death Rate 11.06

Number of women dying in, or in consequence of childbirth :—

		Rate per 1,000 births (Live & Still) :—
From sepsis	1	1.25
From other causes	2	2.50

Deaths of Infants under one year of age per 1,000 live births :—
Legitimate 51.63 Illegitimate 66.67 Total 52.22

Number of deaths from Measles (all ages)	—
,, ,, ,, Whooping Cough (all ages)	9
,, ,, ,, Diarrhoea (under 2 years of age)	—

INFECTIOUS DISEASE.

Table showing the numbers of Infectious Diseases notified in the Borough during the year 1933.

Disease	Cases notified at various ages. (Years)												Total cases notified	No. of cases admitted to Hospital.	Total Deaths.
	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and upwards			
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	1	1	3	9	9	61	29	10	18	5	3	....	149	146	9
Erysipelas	1	1	....	....	....	....	....	1	1	1	7	2	14	9	4
Scarlet Fever	....	1	5	4	5	28	11	1	4	....	....	....	59	53	....
Ophthalmia Neonatorum	3	....	....	....	....	....	....	....	....	....	....	....	3	1	....
Dysentery	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pneumonia	9	13	7	8	11	16	2	5	26	18	20	12	147	25	35
Enteric Fever	....	....	....	....	....	....	1	....	....	....	....	....	1	1	....
Continued Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Encephalitis Lethargica	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Puerperal Pyrexia	....	....	....	....	....	....	....	5	39	7	....	....	51	7	3
Puerperal Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Poliomyelitis	....	....	....	....	....	....	1	....	....	....	....	....	1	....	1*
Cerebro-spinal Meningitis	1	....	....	....	....	1	2	1	....	....	....	....	5	4	4
Polio-encephalitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malaria	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Tuberculosis—															
(a) Pulmonary M	....	....	....	....	....	1	2	4	9	6	7	1	30	....	22
F	....	....	....	....	....	....	....	5	14	2	1	....	22	....	13
TOTAL	....	....	....	....	....	1	2	9	23	8	8	1	52	....	35
(b) Non-Pulmonary M	....	....	1	....	....	3	3	1	5	....	....	....	13	....	3
F	....	....	....	....	....	3	....	2	3	2	....	....	10	....	1
TOTAL	....	....	1	....	....	6	3	3	8	2	....	....	23	....	4
TOTALS	15	16	16	21	25	113	51	35	119	41	38	15	505	246	95

* This Patient was removed to her home at Salisbury, where she died

TABLE SHOWING MONTHLY INCIDENCE OF INFECTIOUS DISEASES AND THE NUMBER OF DEATHS DURING 1933.

Disease.	Number of Cases.												Total	No. of Deaths.
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	19	12	18	15	32	17	4	9	7	10	4	2	149	9
Erysipelas	1	....	1	....	2	....	2	....	....	1	6	1	14	4
Scarlet Fever	6	3	1	1	7	1	4	1	6	6	11	12	59	....
Ophthalmia Neonatorum	1	....	....	....	....	....	....	....	....	1	....	1	3	....
Dysentery	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pneumonia	19	43	15	11	13	11	9	2	5	5	4	10	147	35
Enteric Fever	....	....	1	....	....	....	....	....	....	....	....	....	1	....
Encephalitis Lethargica	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Puerperal Pyrexia	8	3	2	5	4	2	8	2	5	5	3	4	51	3
Puerperal Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Poliomyelitis	....	....	....	....	....	....	....	1	....	....	....	....	1	1*
Polio-encephalitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro-spinal Meningitis	....	....	....	2	1	1	....	1	....	....	....	....	5	4
Malaria	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Continued Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	54	61	38	34	59	32	27	16	23	28	28	30	430	56

* This patient was removed to her home at Salisbury, where she died.

TUBERCULOSIS, 1933.

Age Periods	New Cases Pulmonary		New Cases Non-Pulm'ry		Deaths Pulmonary		Deaths Non-Pulm'ry	
	M	F	M	F	M	F	M	F
Under 1 year	....	....	....	....	....	....	....	....
1—5	....	....	1	....	....	....	....	....
5—10	1	....	3	3	....	....	....	....
10—15	2	....	3	1	....	....	....	....
15—20	4	5	1	3	....	....	....	....
20—25	1	8	1	2	3	3	....	....
25—35	9	7	4	1	5	5	3	....
35—45	6	2	....	2	4	3	....	....
45—55	5	1	....	1	5	1	....	....
55—65	1	....	....	....	3	1	....	....
65 and over	1	....	....	....	2	....	....	1
Totals	30	23	13	13	22	13	3	1

DEATHS FROM TUBERCULOSIS, 1933.

TABLE SHEWING WHEN CASES WERE NOTIFIED.

When Notified.	Pulmonary		Non-Pulmonary	
	Males.	Females	Males.	Females
One year or more before death	9	9	....	....
Less than one year and more than 6 months before death	5	2	....	....
Less than six months and more than two months before death	....	1	....	....
Less than two months before death	3	....	....	....
At or immediately before death	4	....	2	....
Unnotified (Cases who died outside the Borough & never notified to Swindon).	1	1	1	1
Totals	22	13	3	1

Comparative statement showing the number of notifications received of the various forms of Tuberculosis and the Death Rates resulting from each form of the disease for the years 1915-1933.

	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915
No. of cases notified (all forms)	79	88	80	86	98	114	102	94	91	111	117	103	98	97	73	116	129	132	140
Respiratory Tuberculosis	53	62	52	41	57	69	70	56	66	75	75	68	63	72	51	86	102	95	86
Deaths from Respiratory Tuberculosis	35	41	40	37	23	40	45	30	42	42	48	59	42	55	44	66	60	48	51
Deaths from Tuber. Meningitis	1	5	3	3	3	6	1	8	5	4	12	6	11	8	8	11	8	10	10
Deaths from other forms of the disease	3	7	3	12	1	2	9	3	4	7	7	6	12	6	8	11	10	10	8
Total deaths from Tuberculosis	39	53	46	52	27	48	55	41	51	53	67	71	65	69	60	88	78	68	69
General Death Rate for all forms of Tuberculosis	0.64	0.85	0.73	0.84	0.44	0.82	0.96	0.71	0.89	0.93	1.19	1.27	1.17	1.28	1.16	1.74	1.5	1.3	1.32
Death Rate for Respiratory Tuberculosis	0.57	0.66	0.64	0.60	0.37	0.68	0.78	0.5	0.73	0.74	0.85	1.05	0.75	1.02	0.85	1.30	1.15	0.95	0.98

BACTERIOLOGICAL INVESTIGATIONS.

	Public Health Dept.					School Medical Dept.				
	1929	1930	1931	1932	1933	1929	1930	1931	1932	1933
Examinations carried out by Bristol or Liverpool Universities	26	26	15	18	8	....	....	....	....	....
Examinations carried out at Gorse Hill Hospital :										
Throat swabs examined	115	524	482	786	785	....	....	....	....	....
Urine : Examination for Tubercle bacilli	....	....	....	....	....	....	....	....	....	....
Examinations carried out at 61 Eastcott Hill :—										
Throat swabs examined	241	851	852	1216	1164	5	84	73	33	34
Eyes ; swabs examined direct	36	55	43	50	36	2	5	....	....	....
Pus and discharges :—										
For Tubercle bacilli	6	10	5	4	4	....	....	1	....	4
For other organisms (cultures)	66	54	9	47	27	2	....	....	....	23
Hair. Examinations for Ringworm fungus	....	5	6	....	....	206	89	56	18	15
Other conditions	....	....	....	....	....	....	1	....	....	....
Blood, Histological examinations	12	16	27	27	13	35	25	86	181	155
Blood for Wassermann-Reaction	....	....	....	....	....	....	....	....	....	....
Cerebro-spinal fluid	8	4	1	4	6	....	....	....	....	....
Sputum. For Tubercle bacilli	1	1	....	....	....	....	....	....	....	4
For other organisms	....	....	....	....	....	....	....	....	....	3
Urine-Chemical examinations	24	76	22	20	13	18	16	8	12	28
,, Microscopical examinations	9	10	18	14	2	4	2	7	8	14
,, Bacteriological examinations	....	....	....	....	....	....	....	....	....	....
For diseased meat	17	2	2	....	....	....	....	....	....	....
Miscellaneous	2	11	3	....	2	....	68	1	13	....
Totals	563	1645	1485	2186	2060	272	290	232	265	280

No. of samples of water submitted for chemical and bacteriological analysis during 1933 25

No. of samples of sewage effluent submitted for chemical examination during 1933 12

REVIEW OF THE COMPARATIVE VITAL AND MORTALITY STATISTICS FOR THE BOROUGH OF SWINDON, TOGETHER WITH THOSE FOR ENGLAND AND WALES FOR THE YEARS 1901 TO 1933 INCLUSIVE.

	Birth Rate		Death Rate		Infant Mortality Rate		Illegitimate Death Rate
Year	Swindon	England and Wales	Swindon	England and Wales	Swindon	England and Wales	
1901	30.6	28.5	11.8	16.9	102.9	151	—
1902	28.3	28.5	12.7	16.3	104.7	133	—
1903	29.5	28.5	11.27	15.5	106.9	132	—
1904	30.0	28.0	12.49	16.3	111.2	145	—
1905	28.4	27.3	11.2	15.3	95.4	128	—
1906	29.4	27.2	9.9	15.5	86.2	132	—
1907	28.8	26.5	12.3	15.1	91.8	118	—
1908	28.9	26.7	11.8	14.8	101.5	120	—
1909	26.5	25.8	10.8	14.6	78.2	109	—
1910	23.4	25.1	9.7	13.5	86.8	105	—
1911	21.6	24.3	10.9	14.6	103.1	130	—
1912	23.4	23.9	10.3	13.3	76.3	95	—
1913	23.39	24.1	12.08	13.8	86.4	108	—
1914	22.5	23.8	11.5	14.0	73.7	105	—
1915	21.16	21.9	12.83	15.7	67.7	110	—
1916	18.9	20.9	11.3	14.4	72.4	91	—
1917	15.5	17.8	12.25	14.4	88.6	96	—
1918	16.53	17.7	15.13	17.6	81.3	97	129.63
1919	16.86	18.5	11.97	13.8	83.9	89	79.52
1920	23.25	25.4	11.64	12.4	69.0	80	122.44
1921	20.27	22.4	9.58	12.1	67.5	83	102.56
1922	18.98	20.6	12.17	12.9	60.5	77	121.95
1923	17.77	19.7	9.27	11.6	53.2	69	83.33
1924	17.11	18.8	10.78	12.2	63.01	75	192.30
1925	16.56	18.3	11.09	12.2	60.5	75	52.63
1926	17.09	17.8	10.67	11.6	47.95	70	193.54
1927	14.52	16.7	11.16	12.3	46.98	69	107.14
1928	15.63	16.7	9.92	11.7	36.26	65	51.28
1929	13.98	16.3	10.96	13.4	47.29	74	32.26
1930	15.66	16.3	10.77	11.4	62.82	60	157.89
1931	14.51	15.8	10.88	12.3	56.04	66	136.36
1932	14.31	15.3	11.68	12.0	52.99	65	37.04
1933	12.48	14.4	11.06	12.3	52.22	64	66.67

BOROUGH OF SWINDON.

CAUSES OF DEATH, 1933.

(Registrar-General's Official Returns).

Causes.	Males	Females	Total
Whooping Cough	5	4	9
Diphtheria	3	7	10
Influenza	12	6	18
Cerebro-spinal fever	1	2	3
Tuberculosis of respiratory system	22	14	36
Other tuberculous diseases	3	1	4
Syphilis	1	2	3
General paralysis of the insane, tabes dorsalis	1	—	1
Cancer, malignant disease	35	36	71
Diabetes	2	5	7
Cerebral haemorrhage etc.	17	30	47
Heart disease	74	89	163
Aneurysm	1	1	2
Other circulatory diseases	20	8	28
Bronchitis	10	10	20
Pneumonia (all forms)	12	15	27
Other respiratory diseases	6	2	8
Peptic ulcer	6	1	7
Appendicitis	3	1	4
Cirrhosis of liver	1	1	2
Other diseases of liver etc.	2	4	6
Other digestive diseases	7	6	13
Acute and chronic nephritis	9	7	16
Puerperal sepsis	—	1	1
Other puerperal causes	—	2	2
Congenital debility, premature birth, malformations etc.	13	9	22
Senility	28	34	62
Suicide	7	3	10
Other violence	18	7	25
Other defined diseases	31	20	51
Causes ill-defined or unknown	—	1	1
	350	329	679

BOROUGH OF SWINDON.

INFANT MORTALITY.

1933. *Nett deaths from stated causes at various ages under One Year of Age.*

COMPILED FROM THE OFFICIAL REGISTRATIONS.

CAUSE OF DEATH.	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month.	1—3 months	3—6 months	6—9 months	9—12 months	Total Deaths under 1 year.
All Causes—										
Certified	14	1	1	2	18	9	6	3	4	40
Uncertified	....	....	....	....	....	....	....	....	....	....
Small-pox	....	....	....	....	....	....	....	....	....	....
Chicken-pox	....	....	....	....	....	....	....	....	....	....
Measles	....	....	....	....	....	....	....	....	....	....
Scarlet Fever	....	....	....	....	....	....	....	....	....	....
Diphtheria and Croup	....	....	....	....	....	....	....	....	....	....
Whooping-cough	....	....	....	1	1	2	3	....	1	7
Diarrhœa	....	....	....	....	....	....	....	....	....	....
Enteritis	....	....	....	....	....	....	....	....	....	....
Tuberculous Meningitis	....	....	....	....	....	....	....	....	....	....
Abdominal Tuberculosis	....	....	....	....	....	....	....	....	....	....
Other Tuberculous Disease	....	....	....	....	....	....	....	....	....	....
Congenital Malformations	....	....	....	....	....	3	....	....	2	5
Premature Birth	6	1	1	....	8	1	....	....	....	9
Atrophy, Debility and Marasmus	5	....	....	....	5	1	....	....	....	6
Atelectasis	1	....	....	....	1	....	....	....	....	1
Injury at Birth	....	....	....	....	....	....	....	....	....	....
Erysipelas	....	....	....	1	1	1	....	....	....	2
Syphilis	....	....	....	....	....	....	....	....	....	....
Rickets	....	....	....	....	....	....	....	....	....	....
Meningitis (*not Tuberculous*)	....	....	....	....	....	....	....	....	....	....
Convulsions	1	....	....	....	1	....	....	....	....	1
Gastritis	....	....	....	....	....	....	....	....	....	....
Laryngitis	....	....	....	....	....	....	....	....	....	....
Bronchitis	....	....	....	....	....	....	....	....	....	....
Pneumonia (all forms)	1	....	....	....	1	1	....	1	1	4
Suffocation, overlying	....	....	....	....	....	....	1	....	....	1
Meningococcal Meningitis	....	....	....	....	....	....	....	1	....	1
Influenza	....	....	....	....	....	....	1	1	....	2
Acute Pulmonary Oedema	....	....	....	....	....	....	1	....	....	1
TOTALS	14	1	1	2	18	9	6	3	4	40

LIST OF HOSPITALS PROVIDED OR SUBSIDISED BY THE LOCAL AUTHORITY OR BY THE COUNTY COUNCIL.

	Two beds at Winsley Sanatorium, near Bath, provided by the local authority.
TUBERCULOSIS.	The Wilts County Council has two sanatoria for the treatment of tuberculosis; one at Winsley for early cases and the other at Harnwood near Salisbury, for advanced cases.
MATERNITY.	A Maternity Home of 24 beds provided by the local authority.
CHILDREN.	Nil.
FEVER.	A fever hospital of 70 beds provided by the local authority.
SMALLPOX.	A Smallpox Hospital provided by the Wilts County Council.
VENEREAL DISEASES.	A hospital with 6 beds provided by the Wilts County Council.
ORTHOPAEDIC.	Use of beds in Bath Orthopaedic Hospital.

LIST OF CLINICAL TREATMENT CENTRES IN THE BOROUGH OF SWINDON.

Name of Clinic.	Where Held	Days and hours of attendance	By Whom Provided
Maternity and Child Welfare	61, Eastcott Hill	Mondays, Wednesdays and Fridays 2 p.m. to 4.30 p.m.	Swindon Corporation
Maternity and Child Welfare	Girls' Club, St. Paul's St.	Tuesdays, 2 p.m. to 4 p.m.	,, ,,
Maternity and Child Welfare	Methodist School, Romsey Street	Thursdays, 2 p.m. to 4 p.m.	,, ,,
Maternity and Child Welfare	Methodist Church, Pinehurst	Mondays, 2 p.m. to 4 p.m.	,, ,,
Ante-Natal Clinic	37, Milton Road	Tuesdays, Thursdays, Fridays and Saturdays, 2 p.m. to 4.30 p.m.	,, ,,
Consultation Ante-Natal Clinic	Maternity Home, Kingshill	Second & Fourth Wednesdays in each month from 2.30 to 4 p.m.	,, ,,
Minor Ailments	61, Eastcott Hill	Every morning 9 a.m. to 11 a.m.	,, ,,
Dental Clinic	Faringdon Road	Daily 9.30 a.m. to 12.30 p.m., and 2 p.m. to 5 p.m. (Saturdays 10 a.m. to 12.30 p.m.)	,, ,,
Eye Clinic	Faringdon Road	Tuesdays, 2 p.m. to 4.30 p.m.	,, ,,
Ringworm Clinic	61 Eastcott Hill	Tuesdays, 2 p.m. to 5 p.m.	,, ,,
Throat, Nose and Ear Clinic	,, ,, ...	Mondays, 2 p.m. to 5 p.m.	,, ,,
Enlarged Thyroid Glands	,, ,, ...	Thursdays, 2 p.m. to 5 p.m.	,, ,,
X-Ray Clinic	,, ,, ...	Thursdays, 2 p.m. to 5 p.m.	,, ,,
Electrical Treatment (General)	,, ,, ...	Tuesdays, 2 p.m. to 4 p.m.	,, ,,
Electrical Ionization Clinic	,, ,, ...	Fridays, 2 p.m. to 4.30 p.m.	,, ,,
Observation Clinic	,, ,, ...	Saturdays, 9.30 a.m. to 12 noon	,, ,,
Tuberculosis Clinic	Tuberculosis Dispensary, Milton Road	Thursdays, 10 a.m. to 3 p.m.	Wilts County Council
Venereal Diseases Clinic	Isolation Hospital, Gorse Hill	Men—Wednesdays, 6.30 to 8.30 p.m. Fridays, 6 p.m. to 8 p.m. Women and Children :— Mondays, 5 p.m. to 7 p.m. .... Fridays, 2 p.m. to 4 p.m.	,, ,,
Orthopaedic Clinic	Isolation Hospital Grounds, Gorse Hill	Tuesdays, 2 p.m. to 3.30 p.m.	Voluntary Association

AMBULANCE FACILITIES.

(a) For Infectious Diseases.	Two Motor Ambulances are supplied by the Swindon Town Council.
(b) For non-infectious and accident cases.	A Motor Ambulance is provided by the Swindon Town Council.

LIST OF LOCAL ACTS, SPECIAL LOCAL ORDERS AND GENERAL ADOPTIVE ACTS IN FORCE IN THE DISTRICT.

LOCAL ACTS AND ORDERS.

Swindon Water Act, 1894.
Swindon New Town Electric Lighting Order, 1895.
Swindon (Water) Orders of 1902 and 1919.
The Swindon Corporation Act, 1904.
Swindon Corporation (Wilts and Berks Canal Abandonment) Act, 1914.
The Swindon Order, 1923.
The Swindon Order, 1925.
Swindon Corporation Act, 1926.
The Swindon Order, 1927.
The Swindon (Extension) Order, 1928.
The Swindon Electricity (Extension) Special Order, 1929.
Public Works Facilities Scheme (Swindon Corporation) Act, 1931.
Swindon Private Street Works Order 1933 (expires 1st March 1935).

ADOPTIVE ACTS IN FORCE.	Date of Adoption.
The Public Health Acts Amendment Act, 1890.	11th Nov., 1890.
Infectious Diseases (Prevention) Act, 1890	11th March, 1902.
The Museums and Gymnasiums Act, 1891 (so far as it relates to museums)	6th June, 1905.
The Local Government and Other Officers Superannuation Act, 1922	1st July, 1924.

THE PUBLIC HEALTH ACTS AMENDMENT ACT, 1907 :—

Section 85 (Registries for Servants).	22nd Dec., 1926.
Part III., Secs. 36, 37, 49, 50, and 51 Part IV., Secs. 62, 64 and 65. Part X., Sec. 93.	3rd Jan., 1927.

THE PUBLIC HEALTH ACT, 1925. :—

Part II. (except Secs. 20,24 and 29). Part III. Part IV. Part V.	1st Feb., 1927.

APPENDIX.

BOROUGH OF SWINDON.

ANNUAL REPORT

OF THE

Chief Sanitary Inspector

F. H. BEAVIS

For the Year 1933.

To the Chairman and Members of the Health etc., Committee.

LADIES AND GENTLEMEN,

I have the honour of submitting my eighth Annual Report dealing with the work carried out by the Sanitary Department during the year ended 31st December, 1933.

Appended hereto will be found the tables giving full particulars of the inspections made during the year in conformity with the requirements of the Ministry of Health.

During the year under review the personnel of the Sanitary Staff underwent no change.

MILK SUPPLY.

Swindon, as I have said before, is very favourably situated so far as milk supply is concerned. Milk production is carried on extensively in the agricultural districts surrounding the Borough and is one of the farmer's principal sources of income. This is beneficial to the inhabitants of Swindon because the milk is brought practically direct from the farm to the consumer with very little handling and within a few hours of its being obtained from the cow. Personally I am of opinion that clean, raw milk in its natural state is much preferable to treated milk. Consequently every effort is being made to ensure a clean and wholesome supply. Unfortunately, owing to pressure of other work, very little milk sampling was done during the year. In September your Committee entered into an arrangement with the Bristol University whereby samples of milk taken in Swindon are sent to Bristol for bacteriological examination. This arrangement is working satisfactorily, and a few samples were sent towards the end of the year. It is hoped, however, to send a regular number of samples each month in the future, as it is only by taking samples of milk regularly that we can hope to keep the general supply up to the required standard. The demand for 'graded' milk is gradually increasing, and recently one dairyman from outside the district has commenced to sell Certified milk within the Borough. There is also a considerable trade in Grade A milk. This appears to me to be very satisfactory, for, as I have just said, good, clean, wholesome milk in its natural state is better than treated milk of any kind; but the milk must be clean and free from harmful bacteria.

The taking of samples of Certified and Grade A (Tuberculin Tested) milk has been delegated to the Town Council by the Ministry of Health, and during the year sixteen samples were taken. Only one of these proved to be unsatisfactory, but as

the place of production was outside the Borough no action could be taken by your inspector. The matter, however, was dealt with by the Ministry direct and the remainder of the samples were satisfactory.

During 1933 proceedings were taken against a dairyman for bottling milk in the street and the offender was fined 10/-. The practice of bottling milk in the streets is most objectionable, and every effort on the part of the inspectors is made to prevent it.

One farm and one bottling establishment are licensed for the production and distribution respectively of Grade A (Tuberculin Tested) milk. One farm and three milk shops are licensed for the production and distribution respectively of Grade A milk. One retailer is licensed for the sale of Certified milk within the Borough. There are two retailers who are licensed to sell Pasteurised milk, and one licence has been issued for the pasteurisation of milk within the Borough. There is one retailer of Grade A milk from outside the district who also possesses a subsidiary licence to sell Grade A (T.T.) milk.

FOOD SUPPLY.

The inspection of meat and other foods constitutes a very important part of the manifold duties carried out by the sanitary inspector and embraces practically everything used for the food of man from vegetables, fruit, ice-cream and confectionery to bread, butter, milk, meat and fish. It will readily be understood that with a population of over 62,000 the inspection of the food necessary for this number of people is a formidable task, and the sanitary inspector and his assistants are kept working at high pressure throughout the year coping with this and other work of the Department. The supervision of the people's food supply is absolutely essential, as it is only by constant watchfulness that the quality of the food is kept up to the required standard of purity and wholesomeness and the health of the community is safeguarded. Legislation requiring the registration of all shops where food is kept and sold is urgently needed. This would enable the Local Authority to exercise a much greater control over the public's food than is at present possible. Power should also be given to the Local Authority to cancel the registration of any premises the conduct of which is unsatisfactory ; for food has a direct bearing on public health and should be produced, kept and sold under proper conditions. As the law now stands it is possible to take action only when a nuisance is in existence, and there is a vast difference between the definitions of an actual nuisance and ' unsatisfactory conditions.'

During the year 15,905 animals were slaughtered for human consumption within the Borough, every one of these being seen by the inspectors before being offered for sale. There is also considerable traffic in 'dead meat' from outside districts, the adequate inspection of which is practically impossible and will never be placed on a satisfactory basis until legislation is passed giving the Town Council power to require that all meat brought into the Borough shall pass through a recognised clearing-house before being offered for sale to the public. This clearing-house could be worked in conjunction with a public abattoir. For the present the provision of an abattoir has apparently been shelved, although the Council have approved the principle of providing this much-needed establishment.

At the end of 1932 there was a case pending of having diseased meat exposed for sale in a butcher's shop. This case came before the Borough Justices on the 2nd March, 1933 when a fine of £10 was imposed.

At the close of 1933 another case was pending against a dealer from an outside district, for bringing diseased meat into the Borough.

The unsound food amounted to just under fifteen tons. This is lower than last year, which goes to shew that the quality of meat etc., sold in Swindon is improving.

Appended hereto will be found the tables shewing the work carried out under the Public Health (Meat) Regulations, 1924.

CASEOUS LYMPHADENITIS.

There were no cases of this disease in the imported mutton brought into Swindon during 1933.

HOUSING.

The problem of housing the very poor remains practically unchanged, because these people are unable to pay the economic rents demanded for the new houses. Recently, however, the Town Council have commenced to build bungalows on their Housing Estate at Pinehurst, and these bungalows are let at from 4/- to 5/- per week inclusive. This should go a long way towards solving the difficulty, as the rents are those which aged couples and widows are able to pay. In consequence there is a good demand for these bungalows. This is a step in the right direction, for

as the old couples remove to the Housing Estate other houses in the Town are vacated, thus making room for other families who can afford the slightly higher rents.

During the course of the year 172 houses were erected by the Corporation and 142 by private enterprise, making a total of 314 houses erected during the year.

TENTS, VANS AND SHEDS.

There are still a few caravans in Swindon which are being used for human habitation. Little trouble has been experienced with this section of the community during the year, as the occupants of these vans are careful to keep strictly within the requirements of the bye-laws relating to Tents, Vans and Sheds; consequently no action can be taken against them. The conditions, however, are not very satisfactory from a public health point of view and will not be so until Local Authorities have power to prohibit the use of these structures for human habitation in towns with populations of, say, 30,000 or over.

THEATRES, CINEMAS, ETC.

There are at present one theatre, six cinemas, one billiard hall and twenty-three dancing halls licensed within the Borough. These buildings are regularly visited by the inspectors so as to ensure their being kept in a cleanly and sanitary condition.

DISINFECTION OF VEHICLES AT THE CATTLE MARKET.

The disinfection of vehicles used for the conveyance of animals at the Cattle Market is carried out under the direct supervision of the Sanitary Department. A small charge is made by the Corporation for this service, and a table is appended shewing the particulars of the receipts and expenditure incurred during the year 1933. It should be clearly understood, however, that this table is not an accurate statement so far as profit and loss is concerned, as it does not include the cost of collection, disinfectants, plant, etc., but only gives the amounts expended on casual labour.

Towards the end of the year a scheme was adopted by the Committee whereby unemployed persons are engaged on this work, such men being obtained from the Employment Exchange as required. This scheme is at present working very satisfactorily

and is benefiting the unemployed person by giving him a day's casual labour, besides doing something towards easing the expenses of the National Exchequer.

DRAINAGE WORK.

During the year the drainage systems of 211 houses were either relaid or overhauled. In many instances it was found that the existing drains were nothing more than elongated cesspools, whilst others were so defective as to saturate the surrounding soil with filth. The supervision of the drainage work occupies a considerable amount of time, yet too much attention cannot be paid to this important branch of sanitary activity. In areas which were added to the Borough in 1928 the drainage is gradually being brought up to a satisfactory standard, but there is still a great deal to be done to this end.

RATS AND MICE DESTRUCTION.

The summer of 1933 was hot and dry, and Swindon's 'rat population' forsook their haunts for more congenial surroundings in the fields and hedgerows during the hot weather. There was a little respite from the depredations of these vermin for a few weeks; but this respite was short-lived, for towards the autumn the rodents returned to the tips, bringing their families with them. As a result both tips were again thoroughly infested; but a determined effort was made to cope with the situation and at the end of the year the matter was well in hand.

A perusal of the table under this heading will shew that nearly 6,500 rats were accounted for during the year and that much useful work is being accomplished.

GENERAL.

The continued drought of 1933 furnished an excellent opportunity for cleaning out the water-courses, ditches and ponds in the Borough, and much valuable work was carried out by land owners and farmers. During the summer a few complaints were received regarding the various bathing-places, but these on investigation proved to be groundless and no ill effects to the patrons of these bathing pools were recorded.

A very important step was taken during the year, when the Health Committee decided to acquire a vacuum gully emptier, with which street gullies can now be emptied in a satisfactory manner.

The Committee also undertook the emptying of the cesspools of a block of houses in the lowlying portion of the Town. These houses could not be connected to the public sewer and the owners now pay a small monthly sum for this service. The cleaning of these cesspools, which were in a state of nuisance owing to the gardens having become impregnated with sewage matter, is a considerable benefit to public health.

The free issue of disinfectant granted by the Committee some years ago is a boon to the poorer classes of the community besides being good for public health. It was found, however, that abuses had gradually crept in, and consequently the whole system of issuing free disinfectant had to be re-organised. The present method will enable us to check any abuses in future and will give us a better control over this branch of the Public Health Service.

I am,

Ladies and Gentlemen,

Your obedient servant,

F. H. BEAVIS,
Chief Sanitary Inspector.

SANITARY STATISTICS.

TABLE OF NUISANCES RECORDED AND ABATED, 1933.

Nature of Complaints registered.	Defects brought forward from 1932	Complaints received and visited during 1933	Total	No. of complaints abated during 1933	No. of cases not abated at end of year.
Defective drains	36	149	185	180	5
,, traps	3	75	78	77	1
,, spouts and eaves troughing	15	55	70	57	13
,, roofs	20	98	118	95	23
,, and dirty W.C. pans	8	127	135	130	5
,, floors	22	66	88	78	10
,, and insufficient yard paving	14	53	67	60	7
,, walls	25	116	141	126	15
,, flushing cisterns	7	39	46	38	8
,, ceilings	24	49	73	64	9
,, forecourts	2	7	9	8	1
,, sinks	2	24	26	23	3
Offensive animals	1	2	3	3	....
Offensive accumulations	6	59	65	63	2
Choked drains	5	221	226	225	1
Damp walls	9	33	42	32	10
Dirty rooms	90	310	400	350	50
Overcrowding	2	8	10	7	3
Absence of covered receptacle at butchers' premises	....	2	2	2	....
Miscellaneous	220	704	924	867	57
TOTALS	511	2197	2708	2485	223

VISITS AND INSPECTIONS, 1933.

Infectious Disease	339
Work in course of construction	2086
Slaughterhouses	4235
Bakehouses	112
Dairies, Cowsheds and Milkshops	503
Markets	452
Outworkers	22
Common Lodging Houses	22
Fried Fish Shops	760
Re-visits	2663
Miscellaneous	3230
Workshops	600
Ice Cream Shops	44
Butchers' Shops	519
Contacts with Smallpox	2
Pig-killing on private premises	74
House-to-House Inspections	264
TOTAL	15927

DEFECTS IN OUTWORKERS' PREMISES.

Dirty Floors	—
Dirty Ceilings	4
Dirty Walls	4
Defective Roofs	—
,, Water-closets	—
,, Floors	—
,, Yard Paving	—
,, Firegrates	1
,, Walls	2
,, Drains	—
Other Defects	—
TOTAL	11

INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Occupiers Prosecuted (4)
Factories (including Factory Laundries	205	11	Nil.
Workshops (including Workshop Laundries	351	16	Nil.
Workplaces (other than Outworkers Premises)	44	2	Nil.
TOTAL	600	29	Nil.

DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.—Contd.

Particulars. (1)	Number of Defects. Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	Number of Offences in respect to which Prosecutions were Instituted. (5)
Nuisances under the Public Health Acts :—*				
Want of cleanliness	65	65	....	....
Want of ventilation	....	....	....	....
Overcrowding	....	....	....	....
Want of drainage of floors	1	1	....	....
Other nuisances	14	12	....	....
Sanitary accommodation — insufficient	3	1	....	....
Sanitary accommodation — unsuitable or defective	14	14	....	....
Sanitary accommodation — not separate for sexes	1	1	....	....
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouse (s. 101)	....	....	....	....
Other offences (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921)	....	....	....	....
TOTAL	98	94	....	....

* Including those specified in Sections 2, 3, 7, & 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

DISINFECTANTS.

Number of Applications	4911
Number of Applications Granted	4911
Quantity given : Fluid	613 galls. 3 qts. 1 pt.
Powder	9 cwts. 1 qr., 25 lbs.

DISINFECTION.

Cases of Cancer	38
,, Consumption	89
,, Infectious Disease	352
,, Smallpox	—
Verminous Rooms	444
School Rooms Disinfected	—
School Shawls ,, ...	30
Library Books ,, ...	77
Lots of Bedding ,, ...	649
Lots of Bedding Destroyed	50
Animals Destroyed	1
Miscellaneous Articles Destroyed	—
Miscellaneous Articles Disinfected	11

DAIRIES, COWSHEDS AND MILKSHOPS.

Dairies and Milkshops	66
Cowsheds	21
Milk Purveyors from outside the Borough	38
TOTAL	125

One farm and one bottling establishment are licensed for the production and distribution respectively of Grade A (Tuberculin Tested) Milk. One farm and three milk shops are licensed for the production and distribution respectively of Grade A Milk. One retailer is licensed for the sale of Certified Milk, within the Borough. There are two retailers who are licensed to sell Pasteurised Milk, and one licence has been issued for the Pasteurisation of Milk within the Borough. There is one retailer of Grade A Milk from outside the Borough, who also possesses a subsidiary licence to sell Grade A (Tuberculin Tested) Milk.

Inspections	503

DAIRIES, COWSHEDS AND MILKSHOPS—Contd.

NUISANCES FOUND—	
Dairies requiring limewashing	26
Cowsheds requiring limewashing	66
Dirty yards	4
Defective paving	3
Offensive accumulations	10
Defective ceiling plaster	—
Unsuitable and dirty utensils	—
Milk and containers uncovered	23
Defective floors	—
Defective vent shafts	—
Dirty conditions	17
Insufficient water supply	1
Choked drains	1
Defective water-closets	1
Defective drains	2
Miscellaneous	15
TOTAL	169

SLAUGHTERHOUSES.

Registered	8
Licensed	12
TOTAL	20
Number of Inspections	4235

NUISANCES FOUND—	
Requiring limewashing	29
Want of cleanliness	4
Insanitary condition of pens and yards	2
Offensive accumulations	8
Choked drains	2
Other defects	31
TOTAL	76

COMMON LODGING HOUSES.

On Register	1
Number of persons for whom accommodation is provided :—Adults, 111 ; Children 8.	
Inspections	22

RATS AND MICE (DESTRUCTION) ACT, 1919.

The following is a table showing the work carried out by your officer under the above Act during the year under review :—

Rats Caught	Complaints Received.	Due to Defects of Drains or Sewers.	Due to Structural Defects.
6,456	346	28	10

BAKEHOUSES.

Factory Bakehouses	20
Workshop Bakehouses	8
Domestic Bakehouses	1
TOTAL	29
Number of Inspections	112

NUISANCES FOUND—

Limewashing overdue	38
Dirty yards	—
Ceilings requiring re-painting	1
Choked drains	—
Dirty W.C. pans	—
No separate accommodation for sexes	—
Accumulations of manure	—
Defective yard paving	—
Defective vent shafts	—
Want of cleanliness	6
Other defects	3
TOTAL	48

FOOD SUPPLY.

There are on the registers of the Department—

Butchers' Shops	96
Butchers' Stalls (in covered market)	3
Wholesale Meat Store	1
Fried Fish Shops	38
Ice Cream Shops	192
Cooked Meat Shops	39

and these premises are regularly inspected by your officers.

MEAT AND FOOD DESTROYED.

	Tons.	cwts.	qrs.	lbs.
Carcases of Beef and Offal	7	14	1	5
Portions of Beef and Offal	1	9	0	24½
Carcases of Veal and Offal		1	3	25
Portions of Veal and Offal				16½
Carcases of Pig and Offal		8	0	4
Portions of Pig and Offal		14	2	21¾
Carcases of Mutton and Offal		3	1	3
Portions of Mutton and Offal			1	15
Heads	1	19	2	21¾
Lungs		7	1	10½
Hearts				3
Livers		16	1	19½
Plucks		6	3	26½
Offal		4	3	27½
Chilled Beef		5	3	12
Plate Corned Beef				12
Herrings		2	1	0
Prawns				21
9 Turkeys			2	23
28 Rabbits				—
Codfish			3	24½
Carcase of 1 Goat			1	3
Kidney Suet				10
Kidneys				4
Kidney Beans		1	3	4
10 tins of 'Sun-ray' Peas				—
1 tin of 'Lady-Jane' Raspberries				—
TOTAL	14	19	3	1

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The following table shews the number of carcases inspected during the year, together with the approximate average per week.

	Beasts	Calves	Pigs	Sheep	Total.
Total inspected....	994	1960	5617	7334	15,905
Approximate average per week.	19	38	108	141	306

CLASSIFICATION OF DISEASES FOUND IN THE UNSOUND FOOD.

	Tons.	cwts.	qrs.	lbs.
Abscesses		4	2	23
Angioma		1	0	12
Bruising	1	3	0	15½
Cirrhosis			1	26
Cystercercus Tenuicollis			1	13
Decomposition		9	1	27½
Degeneration			2	6
Distomum Hepaticum		7	3	11½
Echinococcus Veterinorum			1	4½
Emaciation			1	17
Fatty Infiltration		2	0	18
Ill-bled		1	1	11
Immaturity (1 calf)				25
Inflammation		11	3	11
Jaundice				3
Johnes Disease		7	0	2
Mastitis		6	0	14
Moribund		12	3	27
Necrosis			3	8
Nephritis		6	3	11
Oedema		1	2	11
Pericarditis			1	5
Pleurisy		1	0	2
Pneumonia		4	3	10
Pyaemia			3	10
Rupture				22
Tuberculosis	9	6	0	21
Unsoundness		6	1	19
Urticaria			2	7
TOTAL	14	19	3	1

TABLE SHOWING THE RESULTS OF BACTERIOLOGICAL EXAMINATION OF MILK SAMPLES.

No. of Sample.	Organisms per 1c.c.	T.B.	Coli per $\frac{1}{100}$ c.c.	Sediment.
1.	111,000	—	+	—
2.	500,000	—	+	—
3.	1,000,000	—	+	—
4.	112,000	—	+	—
5.	34,600	—	+	—

HOUSING.

Number of new houses erected during the year :—

(*a*)	Total (including numbers given separately under (*b*))	314
(*b*)	With State assistance under the Housing Acts :—	
	(i) By the Local Authority	172
	(ii) By other bodies or persons	—

I. INSPECTION OF DWELLING-HOUSES DURING THE YEAR :—

(1) (*a*)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	963
(*b*)	Number of inspections made for the purpose	963
(2) (*a*)	Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	264
(*b*)	Number of inspections made for the purpose	264
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	3
(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	811

II. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	772

III. ACTION UNDER STATUTORY POWERS DURING THE YEAR :—

A.	Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :	
(1)	Number of dwelling-houses in respect of which notices were served requiring repairs	Nil
(2)	Number of dwelling-houses which were rendered fit after service of formal notices :—	
(*a*)	By owners	Nil
(*b*)	By Local Authority in default of owners	Nil

B. Proceedings under Public Health Acts :

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 13

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—

(*a*) By owners 13

(*b*) By Local Authority in default of owners .... Nil

C. Proceedings under Sections 19 and 21 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made .... Nil

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders .... Nil

D. Proceedings under Section 20 of the Housing Act, 1930 :

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made .... Nil

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit .... Nil

DISINFECTION OF VEHICLES AT THE CATTLE MARKET.

Month	No. of Vehicles Disinfected	Fees Received.	Expenditure.
		£ s. d.	£ s. d.
January	119	2 19 6	2 11 0
February	118	2 19 0	1 15 9
March	111	2 15 6	1 12 3
April	100	2 10 0	1 5 0
May	101	2 10 6	1 10 0
June	105	2 12 6	1 0 0
July	130	3 5 0	1 15 0
August	104	2 12 0	1 5 0
September	140	3 10 0	1 10 0
October	280	7 0 0	2 0 0
November	299	7 9 6	2 0 0
December	178	4 9 0	2 4 0
TOTALS	1785	44 12 6	20 8 0