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Borough of Swindon
EDUCATION COMMITTEE.

ANNUAL
REPORT

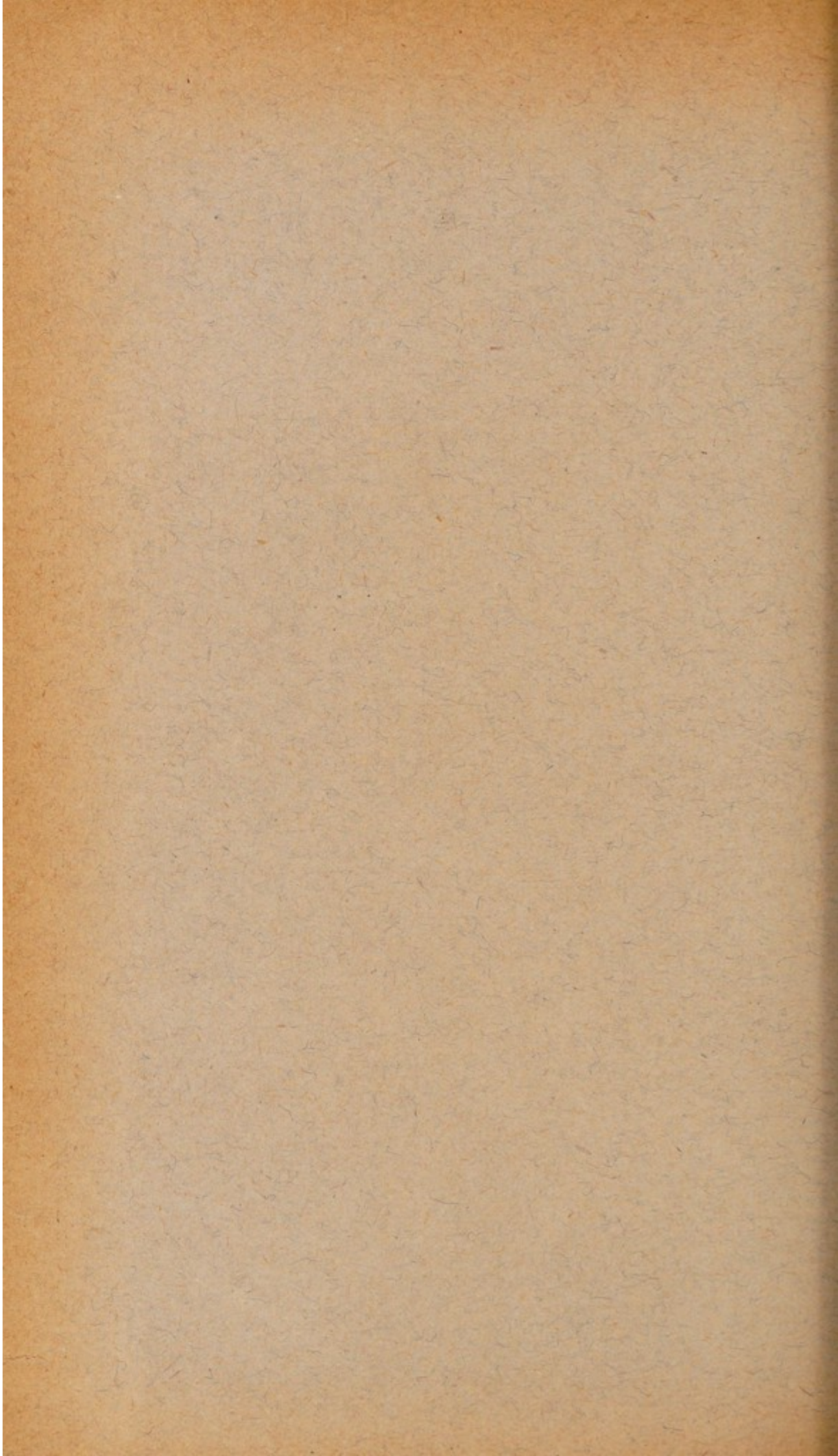
FOR THE YEAR 1931

OF THE

SCHOOL MEDICAL OFFICER

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

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BOROUGH OF SWINDON EDUCATION COMMITTEE.

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* VICE-CHAIRMAN Councillor H. L. HOWARTH.

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+ *Chairman of the Medical Inspection Sub-Committee.*

STAFF.

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).

Specialist Ophthalmic Surgeon.

OLIVER BEAKLEY PRATT, M.A., M.B., B.Ch., (Oxon) D.O., M.R.C.S., L.R.C.P.

Specialist Nose, Throat and Ear Diseases.

F. COURTENAY MASON, B.A., Lond. M.S., M.B., B.S., F.R.C.S. (Eng.)

Dental Surgeons—W. KENYON BERRIE, L.D.S., R.F.P.S.G.

KENNETH W. MASSEY, L.D.S. (Liverpool).

Head Clerk—S. MANSFIELD DEE.

Assistant Clerks—MISS GLADYS L. NORRIS.

JOHN W. DAY.

School Nurses—

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.
E D U C A T I O N C O M M I T T E E .

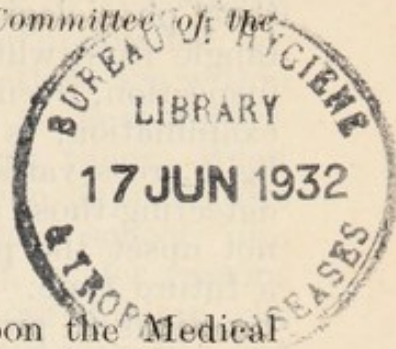
Area	...	...	...	...	...	...	6021 Acres
Number of Elementary Schools	...	...	...	...	...	...	16
Number of School Departments	...	...	...	...	...	...	33
Recognised Accommodation	...	...	...	...	...	...	11,244
Number of Children on Register	...	...	...	...	...	...	9,509
Average Attendance	...	...	...	...	...	...	8,541

Number of Secondary Schools 3

Number of Scholars on Roll:—

The College, Secondary School	...	294
Euclid Street Secondary School	...	242
The Commonweal Secondary School	...	284

*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 1931, a quiet year for the school medical department in which inspection and treatment progressed without any adventitious disturbance, or alteration of procedure.

Towards the end of the year, partly as a result of the research work in practical physiology which had been released during 1931, partly as a corollary to the re-organisation of the local maternity service which had been carried through in that year, but mainly as an expression of the evolution of ideas of school medicine which has been taking place of recent years, the school medical officer decided to reconsider the whole scheme of the borough and to present to the Education Committee a schedule of changes which he considered advisable to bring the school medical service of Swindon up to date. A preliminary memorandum on this subject was presented to the Education Committee, which is at present under their consideration, and should it meet with the approval of the authorities, it will inaugurate important changes in the near future.

Sir George Newman in his 1930 report on "The Health of the School Child," foreshadowed an alteration in the philosophical basis of school medicine, for he made clear to us that, though we have done much to improve the individual health of school children, the improved education and physical environment of the coming generation have rendered practicable a higher elevation of health than was formerly possible and we have not modified our system of school medicine to keep pace with this increased potential. Actual medicinal treatment of such of our children as require it, obviously the first step in child culture, has indeed been pursued satisfactorily almost to the extent of its possibilities, but considerably less than is possible has been done to prevent the need for treatment from maturing, or to deal with the more difficult problems of efficiency which have arisen as a result of the improved state of child life, the advance in social ethics and the increasing stress and requirements of civilisation.

No child can develop into a perfectly efficient citizen if he is handicapped by disease or physical defect, but it by no means follows that children with no obvious defect will have a satisfactory future, for all find themselves in situations which strain

their physiological powers and not infrequently get them into a tangle from which extrication is difficult. The ordinary medical inspection, even when carried so far as to be a detailed physical examination, is but a crude procedure, valuable for bringing to light gross variations from physiological norms, but incapable of detecting those strains and stresses which, though they may have not upset the physiological balance so far, threaten to do so at a future time. The process of education aims at developing all functions to produce their maximum output. If education were perfect, the development of all functions would proceed evenly and the limit would be that beyond which each function is incapable of re-acting. Such an ideal is not, at present, obtainable. Education, like medicine, has developed mainly as the result of experience and crude experiment, and but little from such critical experimental work as is required to satisfy science. We must therefore be prepared to find, as in practice we do find, that the process of education (using that word in its correct sense and not limiting it to school teaching) is rarely tempered to the individual need or capacity of the subject. The wide variations of normality and the high power of the human organism to adapt itself enables us to formulate a "blunderbuss" system of education to which most members of the community can conform without detriment, but a considerable proportion, who for various reasons do not fit the scheme of cultivation which is open to them, break down to become either damaged, or useless. It is occasionally possible to vary the environment of such individuals, but also it is frequently possible to modify the individual to suit his environment and still more often to vary in a minor degree both individual and environment to produce a balance which can be maintained. So far as technical education is concerned, by which term we may include everything that is taught, learnt, or practised in school, from the nursery school to the university, the degree to which it can be carried is fixed by the intellectual level of the subject. This is capable of exact determination in children under the age of twelve, except in such who have an intelligence percentage considerably above the normal. Education has no power to increase intelligence and it cannot get out of any level of intelligence more than that intelligence is capable of giving, but it may fail and it does fail to get this possible maximum owing to environmental and individual difficulties which it is quite within our power to alter. For instance, a child with an intelligence of 90 cannot be educated to the level required for matriculation. It is sometimes possible by exotic means for such a child to get a certificate of having satisfied the examiners, but this is merely a scrap of paper. A child with an intelligence of 101 can easily reach and surpass the level of culture required for matriculation, yet if he is educated to that level he may still fail to matriculate, or may breakdown, either physically, or mentally, for the various forms of breakdown cannot be differentiated. Of course such a failure may be due to faulty teaching with which we have nothing

to do, but it may be, and most often is, caused by the child's environment being such as to make it difficult, or impossible, for him to do justice to his intelligence. These matters are within our province and it is the business of the school medical department to search out these inhibitions and to remedy them. What happens to the child who pursues higher education happens also to the child who goes direct from the elementary school into industry. Breakdown, either physical or mental, is, for reasons that are fairly obvious, more common amongst those children who continue technical education to the limit of their capacity, but they are by no means limited to them, for just as there are inhibitions which prevent the child of superior mentality getting a university degree with facility, there are comparable hinderances which prevent a child of low mentality from making a satisfactory crossing-sweeper. The enormous amount of research work that has been done in industrial physiology and psychology has revealed to us the nature of many of these hinderances, which start by merely making life difficult, boring, or unsatisfactory and finish by breaking down health and rendering the individual more or less useless, either to himself, or to the community.

FINDINGS OF MEDICAL INSPECTION.

The drop in the number of children routine medically inspected is due, in part, to the arrears of 1929 having been overtaken in 1930, and in part to the fall in the child population due to the declining birth rate. The defects found on inspection do not differ significantly from those of recent years. Many of the differences between the figures of 1931 and 1930 are apparent and not real, due to slight variation of standard. Thus, the drop in the incidence of enlarged glands is due to a revision of the standard, and the increase in enlargements of the thyroid gland due to including in this figure cases of disturbed endocrine function, even when there is no appreciable enlargement of the thyroid gland. The drops in ringworm, in other skin diseases and in chorea are however genuine, due to the diminished prevalence of these diseases, and the fall in the incidence of enlarged tonsils is directly connected with the epidemiological situation which ruled during the year under review. It would seem from Table II., B that the number of children requiring treatment tends to remain stationary, or to increase slightly; but this Table gives a false impression because it does not discriminate grave and permanent defects from trivial ailments which are curable in a day or two. It can be seen from the Minor Ailment Table (Table IV., Group I.) that nearly 1,400 matters received attention, affecting 900 children. The total numbers of children "routine" and "special" which were referred for treatment during the year were about 1,300, so it is clear that more than two-thirds of these had nothing but minor ailments, temporary, curable and of no

great medical or social importance. The number of children who have defects which escape detection, or who being detected, fail to obtain treatment, is statistically trivial and does not vary from year to year, so that the treatment tables give a reasonably accurate impression of the amount and variation of disease and defect in the child population.

PROVISION OF MEALS.

The Education (Provision of Meals) Acts of 1906 and 1914, were in force in the borough throughout the year. The scheme for carrying out this work remains similar to what was in vogue last year. It is extremely simple, easy to administer and very cheap, but efficient for dealing with local needs.

SCHOOL BATHS.

There are no school baths in Swindon, nor indeed, are there any public baths. The Great Western Railway Medical Fund Society possesses private baths and swimming baths which, for all practical purposes are open to the public. The swimming instruction of the scholars is carried out in these baths.

EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

There is no employment of young children in Swindon. The Juvenile Employment Committee looks after children and young persons and this committee is in constant touch with the school medical department. Since practically all the children in Swindon are known to the school medical department, which possesses life records of them during their childhood, co-operation is comparatively simple.

SPECIAL INQUIRIES.

The special inquiries in progress in Swindon are :—

1. An inquiry into the distribution and causes of thyroid disease.
2. An inquiry into the histories and environment of rheumatic children.
3. An inquiry into the pulse rate and blood pressure during school age.
4. An inquiry into the blood changes of childhood.

INFECTIOUS DISEASE.

The Board of Education use this heading in their circular and request information regarding the prevalence of infectious disease in schools and in school children, but it is obvious from recent literature which has emanated from the medical officers of the Board that they desire observations on the state of herd immunity, on the variation of re-action to endemic infection in the school population and the bearing that these have upon defects in children and consequent interference with the process of education.

The wide-spread epidemic of scarlet fever which covered Swindon between 1928 and the early part of 1930 produced a condition of relatively high herd immunity to streptococcal infection. It was followed by a period of negative incidence of scarlet fever itself, of low incidence of various forms of sore throat and consequent diminution below normal of ear disease, tonsillar disease, etc., which is quite evident from the statistical tables. Diphtheria was extensive and severe, a condition that was expected owing to the low level of herd immunity to this disease. An epidemic of diphtheria started in the late summer of 1930 and continued up to February 1932. During this epidemic there were 260 cases of genuine clinical re-action. Since diphtheria had not been prevalent in Swindon for ten years prior to this epidemic and there had been no artificial immunisation of the child population, we may presume that the school population of Swindon, prior to the start of the epidemic, was practically virgin to the disease and that consequently some 90% of the children would be susceptible to infection. Including the secondary school children there are about 10,000 children of school age in the borough, so that 9,000 should be susceptible to diphtheria. The epidemic which produced 260 clinical re-actors would immunise 2,600, reducing the potential from 90% to 64%. There has been a small amount of immunisation work done in Swindon during the last two years, but not sufficient to have any influence upon the herd immunity. If, as is probable, the state of herd immunity at the present is 64% susceptible, it is certain that the epidemic of diphtheria which slackened in February 1932, will re-appear in the near future. There are no chronic carriers of diphtheria in Swindon. The reason for this is unknown, but it causes lengthy periods of freedom from the disease alternating with epidemics, severe in incidence and high in fatality. But there are, at the present moment, many temporary carriers of diphtheria, infected by contact with clinical cases, which keep alive the danger of an immediate return of the epidemic. Of recent years diphtheria has become typically a school disease affecting mainly school children and to a large extent spread in school. This has come about from the falling birth rate reducing the density of the pre-school population. In most infectious

diseases, such as measles and whooping cough, this shifting of population densities re-acts favourably, because measles and whooping cough become less fatal as the age of attack advances. This unfortunately does not hold true with diphtheria, the fatality rate of which is little influenced by age. In Swindon in 1931, 90% of the mortality from diphtheria fell upon the school age. Diphtheria ends in death or complete recovery; it has little influence on the usual defects in school children, such as enlarged tonsils, ear disease, etc.

Whooping cough was very low in prevalence in Swindon during 1931 and measles was absent until the end of the year, when it began to play havoc with the attendance of the schools in the north of the borough. About the same time influenza also became epidemic and further interfered with the school attendance in the latter part of the year. The present epidemic of measles is not severe and, so far as is known, has not given rise to any permanent defect; but the influence of influenza is problematical. Many cases of acute ear disease have occurred, but whether these will clear up, or not, is uncertain.

FOLLOWING UP.

The method that has been in practice in Swindon for many years produces an automatic following up of all children from birth until they leave school, or otherwise fall out.

OPEN AIR EDUCATION.

We have no Open Air School at Swindon, though for the past twelve years we have been agitating for one. All hope of obtaining an open air school has now been abandoned by the present school medical officer who gets old much quicker than the proposals mature to bring the school into being. It is, however, far more important that new schools for all purposes should be built reasonably in accord with modern hygiene than that there should be a special school built on open air principles, for it seems more intelligent to place all children in a favourable environment to prevent them from getting ill than to make them ill by bad environment and try to get them better by doing what ought to have been done at the start. The re-arrangement of the schools which is part of the plan of the education authority could do much to satisfy the requirements of school hygiene, but how much of the scheme is going to be hung up, and for how long, are matters into which the writer of this report dare not inquire. There are some schools in Swindon which are not reasonably fit places for children and it is useless to (metaphorically) white-wash their deficiencies. We might reply to those members of the adult population who raise an outcry against all expenditure on school buildings and seize every available opportunity to curtail it, that

had they had the benefit of schooling in suitable premises they would have more enlightenment than to seek to deprive their offspring of benefits which they themselves lacked.

PHYSICAL TRAINING.

There is no doubt that the physical training given in school requires reconsideration. School athletics rest upon a very shaky basis and much of what is done is more showy than useful. This subject is a contentious one in which the school medical department has great interest, though it is only to a minor extent within its jurisdiction. In 1931 the Education Authority utilised the services of the Orthopædic Surgeon (Miss Forrester Brown) to make a survey of a selection of the children in the secondary schools. Her observations are of considerable interest, particularly in connection with the influence of unsuitable footgear. There is some legitimate complaint on the part of the teachers, particularly in the secondary schools, that they do not get so much information from the school medical department as they desire. We are quite prepared to admit this, because, at present, we are just as much at sea as are gymnastic instructors, and for precisely the same reason—we have not got a sufficient sound knowledge of the physiological basis of physical exercises to be really helpful.

CO-OPERATION.

Co-operation between the school medical department and the parents, teachers, attendance officers, and various agencies which are capable of giving help is satisfactory. Something more might be done by co-operation between the school medical and the teaching departments to consider questions which are common to both and which have not so far been solved. Co-operation with the parents is satisfactory. The fact that an increasing number of the parents have, themselves, been subject to school inspection and medical supervision and that about 90% of the children have attended the infant welfare centres in company with their parents, is producing a most satisfactory working arrangement between the school medical department and the general population.

NURSERY SCHOOLS.

There are no Nursery Schools in Swindon nor indeed are any called for.

SPECIAL SCHOOLS.

There is a Special School in Swindon for mentally defective children. During the past year four children were certified for attendance; no children left; and seventeen children were in attendance at the end of the year.

CONCLUSION.

Some of the foregoing remarks touch upon controversial questions intentionally, for no social function achieves its purpose unless it is fused with all others for the single object of improving the condition of mankind. There is no line of separation between school medicine and education on the one hand and between it and epidemiology and communal hygiene on the other, so it is madness to try to limit it as a service which can stand by itself. The school medical officer is, or should be, a biologist and upon all matters which come before him he should exercise his biological conception. This is widely different from attending merely to anatomical or pathological details. The strictly medical part of school medicine receives adequate attention, so in most places, including Swindon, there is no excuse for any child having a remediable defect to remain unrelieved, though we are not always quite certain that the "remedy" is the best form of management. The public still thinks that there is a line of demarkation between health and disease, and the expressions in common use tend to keep alive this fallacy. To speak of a person "catching fever" or "having a tumour," or "suffering from a headache," suggests that the fever, tumour, and headache are entities, functions that can be separated, defined, and measured. But they have no corporate existence, they are merely states of physiological disharmony, inseparable from and coincident with the organism. Medical treatment is a method of interfering with this disharmony to relieve certain end results of disordered function and is merely an adjunct to biological management.

To the biologist, education is a form of nutrition, bearing intimately upon the process of development. Training, which is included under education and is often confused with it, is merely a convenient way of learning tricks, of concern to the biologist only in as far that the ability to learn and utilise the specific tricks with profit and without detriment depends largely upon the possession of appropriate sense organs. It is probable that true education may affect inheritance, it is certain that training has no value except to the individual.

Real progress will only come about by considering the child and his environment as a space-time event, inseparable from the past, the future and the contemporary events which make up the space-time slice of evolution in which he passes his corporate existence as an automatic, but not strictly definable, unit. This sounds difficult, but organic beings are difficult and cannot be treated piecemeal like the furniture in a room. They cannot be separated from their environment, for they coincide with it. The food man eats and what he does, and what is done to him are as much a part of him as are his lungs, or his tonsils. That part which is most nearly individualistic—his physical structure—is

continuously adjusting itself to maintain a balance in continuously changing environment and will succeed for long periods of time if it is sound and the environment does not make impossible calls upon it. Disease is an expression that this balance has become impossible and the object of medical treatment to attempt to adjust it. It must generally fail, for in the effort to obtain balance as long as possible, the organism exhausts its reserves and damages its organs and tissues beyond repair. Obviously, if we are to maintain health, to keep the body in a state in which it can always react with facility to its environment, we must interfere long before the balance is upset; in other words keep a continuous watch upon both body and environment to detect the first evidence of difficulty in adjustment.

The process of development, which in man takes a quarter of a century, is dynamic, always moving, but unevenly and discontinuously; periods of rapid change are followed by others of comparative rest. The evolution from the infantile to the adult condition is accomplished by a series of fits and starts, causing dramatic alterations in the conformity of the body and strange, and often awkward, changes in mentality. Mental functions arise suddenly, they are at first uncontrolled and in-coordinate, frequently producing what is miscalled delinquency, of a temporary character. Every mental function requires to be educated immediately it appears, when its direction is easy; later it becomes difficult to control and in a very short time, impossible. Part of the requisite education is physical, the work of the biologist, more is scholastic and moral, the province of the teacher and parent. Under modern conditions it is impossible for children to develop into healthy adults—either physically or mentally healthy—unless they attend school regularly throughout the time of active development. The public must be taught to recognise this. What is taught at school—the actual subject matter used as a base of education—is probably of little consequence, it is the teaching which is important. Many children have their lives absolutely wrecked by irregular school attendance, caused by mistaken ideas of the treatment of certain forms of physical ill-health which are common in childhood. Disease and defect, other than acute disease (which generally is not disease at all but an acute physiological adjustment) is no reason or excuse for interfering with education. On the contrary, the greater the departure from normal standard, the more important is education. How many children, affected with some organic disability, which essentially is of no great consequence, pass into adult life permanently useless? Not from the disability, but from the “treatment” of the disability depriving them of education (which to them is more necessary than to those better equipped physically) producing a permanent and irremediable disharmony between themselves and their environment. For most children, minor

adjustments between their ego and their environment are all that is required. Some part of this adjustment is medical or occasionally, surgical; more frequently it lies in nutrition, the production of immunity, or psychological adjustment. All these are, or should be, expressions of practical physiology, the work of the biologist.

I speak as a biologist, not as an educationist, which I am not. In the course of a lifetime devoted almost entirely to the problems of childhood, I have watched scores, nay hundreds, of children affected with disablements steered through to a life of perfect satisfaction and of almost perfect health, taught to readjust themselves to their disabilities and eventually to become unconscious of them. On the other hand, I have seen as many sink under similar, or less formidable drawbacks; sink into uselessness, destitution, or crime, usually because they were given pity instead of help.

DUNSTAN BREWER,

School Medical Officer.

March, 1932.

APPENDIX I.

REPORT OF THE SCHOOL DENTAL SURGEON.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have pleasure in presenting the Annual Report on Dental Inspection and Treatment for the year 1931.

Early in the year Mr. John H. Mitchell, L.D.S., resigned, and his post was filled by Mr. Kenneth W. Massey, L.D.S., who commenced duties in April, 1931.

Twelve Elementary Schools comprising 26 departments have been dentally inspected, and it was found that 74.1% of the children require treatment.

3,153 children were referred for treatment, and 3,245 children attended the Clinic.

ELEMENTARY SCHOOLS.

6,437 appointments were made, 6,129 or 95% were kept.

2,766 teeth were extracted and 722 were filled.

16,156 other operations (including dressings, sealings, and root treatments) were carried out.

Six regulations were completed by means of orthodontic appliances.

The X-ray was used in many cases for the purpose of diagnosis and observations in obscure cases.

Advantage was taken of the scheme of lectures offered by the "Dental Board of the United Kingdom." Two days were occupied by their lecturer giving talks and demonstrations to various groups of children. They were greatly appreciated, and the interest taken in them is bound to do good. Perhaps at some future date they could be repeated with advantage to other groups.

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

The dental nurse was present at practically all the sessions. I should like to record the great service she is to the Dental Clinic, and how much it is valued.

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

INFANT WELFARE.

308 Children were treated from the Infant Welfare Department, and 38 patients were treated or given advice from the Ante-Natal Clinic.

One visit was paid to the Isolation Hospital, and one visit to the Maternity Hospital.

ROUTINE INSPECTION.

4,254 Children were inspected at the schools.

1,025 or 24% were found free from caries.

76 or 1.7% were found to require no treatment.

3,153 or 74.1% were recommended for treatment.

3,245 Children attended the Clinic for treatment.

2,158 were rendered dentally fit.

6,129 attendances were made.

SECONDARY SCHOOLS.

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

780 pupils were examined

343 or 43.9% were referred for treatment.

This is a drop of 8% from last year (52%) which is gratifying, and shows the value of routine inspection and treatment.

Treatment is at present being carried through for this group of pupils.

208 pupils were treated at the Clinic, making 345 attendances.

86 teeth were extracted and 264 permanent teeth were filled.

144 other operations (including scaling, dressing and root treatment) were carried out.

A detailed report of inspection is appended in the statistical tables for Higher Education.

I thank all the teachers and members of the medical department for the assistance they give us in carrying out our work.

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

School Dental Surgeon.

January, 1932.

APPENDIX II.

REPORT OF THE OPHTHALMIC SURGEON.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

The work of the School Eye Clinic was carried on continuously throughout the school year. There was no important change in the number of children examined and treated, but thanks to the assistance I have received from Dr. Brewer and Dr. Logan the small waiting list which was left over from last year has now been wiped out, so that all children recommended for examination at the Eye Clinic can now be seen with a delay of only a few days.

The work has also been re-arranged so that there is now an even closer co-operation than before between the school medical officers and myself. Although the new arrangements have only been working for two months, the advantage to the children is already manifest, both in avoiding unnecessary re-examinations at the Eye Clinic on the one hand and on the other hand in securing "following up" treatment and observation for those children who need it after ceasing to attend the Clinic.

I am glad also to be able to state that this co-operation has been by no means confined to the school medical staff, but that suggestions and information from the teaching staff have also been of great value in many cases.

As in former years all children requiring ophthalmic hospital treatment have been admitted under my charge at the Oxford Eye Hospital, in accordance with the arrangements made by the Education Committee and the Hospital. Most of these cases have been for operation for squint, but there have been also some more serious conditions, notably two cases of detached retina and one of infantile glaucoma. The arrangement is a very valuable one and I trust that it may be continued until such time as efficient hospital accommodation for eye cases can be provided in Swindon.

I am greatly obliged to Dr. Brewer for carrying on the work of the Clinic at a time when I had to be away, and to Dr. Logan for his valuable help both in and out of the Clinic, which he attends weekly.

The Nursing and Clerical Staffs have, as in former years, contributed very largely to the working of the Clinic, and to them my best thanks are due.

O. B. PRATT, M.A., M.B., M.R.C.S., L.R.C.P.,
March, 1932.

Ophthalmic Surgeon.

APPENDIX III.

REPORT OF THE AURAL SPECIALIST.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have pleasure in presenting the Annual Report of the Special Aural Clinic for the year 1931.

The number of cases examined has increased from 53 to 68 as compared with the previous year. The total number of consultations, however, was only 78, which means that only 10 patients were seen more than once.

It is of interest to note that the percentage of refusals of treatment recommended has diminished to half that of the previous year.

I wish to express, once more, my thanks for the assistance I have received from the staff.

F. COURTENAY MASON,

B.A., M.B., M.S. (London), F.R.C.S., Eng.

March, 1932.

APPENDIX IV.

A FRAGMENT ON THE DENTITION OF CHILDREN.

When engaged as School Medical Inspector to the West Riding of Yorkshire Education Committee, during the years 1908 to 1919, finding the work monotonous (for in those days the work of the Inspector was limited to carrying out routine inspection) I found the opportunity favourable to study certain aspects of the physiology of development; for the comparatively great numbers of children between the ages of three and thirteen who came up for medical inspection offered a chance to get some unselected mass information. In order to get material that could be used subsequently for settling certain points in development, it was requisite to make and record a vast number of observations under various headings; but it being neither convenient nor desirable to utilise this material while it was being collected, these records remained dormant until recent years, when I have had the inclination to analyse them to see whether they threw any light upon the physiology of childhood. From year to year I have taken up sundry records, analysed and considered them, and published the results of the findings piecemeal, with the object, eventually, of bringing them together to help in the formation of a biological conception of normal and abnormal man. This year I propose to take a series of observations on the teeth of children born in 1898, and inspected in 1910. This record contains a cypher, and where necessary a description, of every tooth present in these children. The teeth were examined with a dental mirror and probe, but I am not a dentist and therefore probably missed much on the pathological side which an expert dentist would have discovered. On the other hand, I do claim to be a biologist, with a fair knowledge of mammalian dentition and so pay special attention to certain matters which are not particularly interesting to the dental surgeon, unless he is also a biologist.

The number of children on this register is 1,189 and they are divided into four main series: Series A—Children in whom the palate is normal and the teeth regular; Series B—Children in whom the palate is normal and the teeth irregular; Series C—Children in whom the palate is abnormal and the teeth regular; Series D—Children in whom the palate is abnormal and the teeth irregular.

The first series is sub-divided into four, namely: (e) children in whom all 28 permanent teeth have erupted, none of the teeth are hypoplastic, and no milk teeth are remaining. This group represents the normal; (f) children in whom not all of the 28 permanent teeth have erupted, and in whom there are no milk

teeth in the dental row and no hypoplastic teeth; (g) children in whom milk teeth are still present in the dental row, but in whom there are no hypoplastic teeth; and (h) all cases in which hypoplastic teeth are present. The distribution of caries and of hypoplasia will be seen from the sub-joined table.

Teeth of Children from 1898; Examined 1910; Number 1,189.

Palate normal	...	{	A—teeth regular	...	...	...	562
			B—teeth irregular	...	...	...	380
Palate abnormal	...	{	C—teeth regular	...	...	...	59
			D—teeth irregular	...	...	...	188
Palate normal, teeth regular	...	{	(e)—All 28 teeth erupted. No milk teeth remaining. No hypoplasia	...	...	...	245
			(f)—Not all 28 teeth erupted. No milk teeth remaining. No hypoplasia	...	...	...	188
			(g)—Milk teeth still present. No hypoplasia	...	...	...	79
			(h)—Hypoplastic teeth	...	...	...	60

GROUP.	Number of Children.	Number of Carious Teeth.	Number of Carious Teeth per Child.	Number of Hypoplastic Teeth.	Number of Hypoplastic Teeth per Child.	Number of Children having Hypoplastic Teeth.	Percentage of Children having Hypoplastic Teeth.
A.	562	1856	3.3	508	0.90	60	10.6
B.	380	1312	3.4	83	0.22	17	4.4
C.	59	355	6.0	70	1.19	10	17.0
D.	188	1122	6.0	161	0.85	21	11.2
E.	245	871	3.5	—	—	—	—
F.	188	672	3.5	—	—	—	—
G.	79	203	2.9	—	—	—	—
H.	60	110	1.8	508	8.4	—	—

From this table we may conclude that at this age caries is equally common whether the teeth are placed regularly or irregularly, but that caries is nearly twice as common when the palate is abnormal as when it is normal. Secondly, that hypoplasia is considerably more common when the palate is abnormal than when it is normal, but that it is less common when the dentition is irregular than when it is regular. This last observation is surprising, but a feasible explanation is that hypoplastic teeth are generally smaller than teeth which are normal and so are less liable to crowd. It may be remarked that in no case was caries discovered in a hypoplastic tooth. There is, of course, a fallacy here, for some of the teeth may have been so carious that it was impossible to say whether they were or were not hypoplastic, and my opinion as to whether a tooth is, or is not, hypoplastic, and is, or is not, carious, will most certainly be questioned. Still, whatever error there may be will be common to all of the series.

It is necessary to explain what I mean by the abnormal palate. The human palate differs from that of the apes in that it is broad in proportion to its length, the human palate being almost exactly as broad as it is long. It also has a high vault. The abnormal palates met with in man depart in one or more features from the human characteristics. We can recognise three varieties. First, far the commonest, the High Palate, which is only slightly longer than it is broad, but is highly vaulted with the raphé forming a ridge. Second, the Narrow Palate, which is considerably longer than it is broad, but is not highly vaulted. Third, the Gothic Palate, the rarest, which is much longer than it is broad, highly vaulted with the raphé forming a sulcus so that the palate forms a gothic arch. It is somewhat surprising to find so many cases of abnormal palate with regular dentition, but in the narrow palate the teeth are often unusually small and the actual capacity of the jaw is not diminished.

The scrutiny of this register of teeth tends to confirm an opinion which is taking shape in my mind, that the key to the defects so common in children, namely, caries, adenoids, defective eyesight and ear disease, is to be found in failure of development of the face, particularly of the upper jaw, and possibly I shall be able to satisfy myself, if not others, of the nature of the process by which this failure of development of the jaws comes into being. Some years ago, all this complicated interference with normal development was put down to lack of Vitamine D, more recently to lack of Vitamines A and D. It has also been ascribed to failure to utilise the teeth while the jaws were developing. There is little doubt that both these factors have some say in the process, but there is still less doubt that neither of them, nor both of them together, contains more than a fragment of the whole truth.

THE DIASTEMA.

Probably as a result of the influence of Huxley's essay on "Man's Place in Nature," it seems to be placidly accepted that the absence of the diastema is a fixed human characteristic and that a diastema is never present in man. This is an error. In the permanent dentition of modern man, the diastema is rare, except among the Papuans, in whom it is not infrequent, but in the milk dentition of man the diastema is generally present, though it is admitted that usually it is rudimentary. It is occasionally seen in the permanent dentition of children. In the 1,189 children in the series we have considered, it was present in both jaws in six and in the lower jaw only, in four.* It was not present in any child who had an abnormal palate. The diastema must have been present in *Eoanthropus*† and, as has been stated, it is present in the milk dentition of modern man. It is worth noting that the permanent canine of *Eoanthropus* is similar to the human milk canine and does not resemble the human permanent canine. The diastema is absent in some of the eosene mammals. Huxley knew of the absence of the diastema in *Anoplotherium*, but he remarked that man was so remote from *Anoplotherium* that this point of resemblance between the two can have no significance. The modern biologist would be inclined to say that the primates are nearer akin to the eosene mammals than they are to any co-existing order. It seems to me that there is a certain vague resemblance between the milk dentition of man and the dentition of the eosene creodonts, and a resemblance between the adult dentition of man and the dentition of unspecialised eosene herbivora, but this may be fanciful, though it is somewhat in line with a popular view of the evolution of the primates. However, of this I am certain, that just as we cannot evaluate the structure of modern mammals without studying their evolution, so we cannot evaluate man without similar study, nor find the true explanation of the defects and diseases to which he is liable, unless we unravel the history of his origin.

* This is exceptional. I have much other material bearing on the diastema which is not yet analysed, but which will show a frequency far below 1%.

† This is a deduction. We know no part of the upper jaw and the lower jaw lacks its front part, but this can be restored by continuing the sweep of the known portion. The restored jaw is too capacious to house human incisors without an interval.

The first of these is the fact that the human mind is not a blank slate. It is filled with a vast amount of information, much of which is acquired from the environment. This information is stored in the memory and is available for use when needed. The second point is that the human mind is capable of learning. It can acquire new information and skills through experience and practice. The third point is that the human mind is capable of reasoning. It can analyze information, draw conclusions, and make decisions. The fourth point is that the human mind is capable of creativity. It can generate new ideas and solutions to problems. The fifth point is that the human mind is capable of emotion. It can experience a wide range of feelings, from joy and happiness to sadness and pain. The sixth point is that the human mind is capable of social interaction. It can communicate with others and form relationships. The seventh point is that the human mind is capable of self-reflection. It can think about its own thoughts and feelings. The eighth point is that the human mind is capable of problem-solving. It can identify a problem, analyze it, and find a solution. The ninth point is that the human mind is capable of decision-making. It can weigh the pros and cons of different options and choose the best one. The tenth point is that the human mind is capable of adaptation. It can change its behavior and beliefs in response to new circumstances.

ELEMENTARY EDUCATION.

Statistical Tables ... ..	86

TABLE I.—Return of Medical Inspections

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections :

Entrants	...	...	...	...	...	879
Intermediates	...	...	...	...	...	981
Leavers	...	...	...	...	...	646
Total	...	...	...	...	...	2506

Number of other Routine Inspections Nil

B.—OTHER INSPECTIONS.

Number of Special Inspections	...	...	...	...	2609
Number of Re-Inspections	...	...	...	...	7134
Total	...	...	...	...	9743

**TABLE II.—A.—Return of Defects found by Medical Inspection
in the Year ended 31st December, 1931.**

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
	No. of Defects.		No. of Defects.	
	Requiring Treatment.	Requiring to be kept under observation, but not requiring Treatment.	Requiring Treatment.	Requiring to be kept under observations, but not requiring Treatment.
(1)	(2)	(3)	(4)	(5)
Malnutrition	4	10	17	3
Uncleanliness :	...	...	...	...
(See Table IV., Group V.)				
<i>Skin—</i>				
Ringworm :				
Scalp	1	...	10	...
Body	9	...	5	...
Scabies	...	...	15	...
Impetigo	2	...	100	...
Other Diseases (Non-Tuberculous)...	67	...	342	...
<i>Eye—</i>				
Blepharitis	38	1	39	...
Conjunctivitis	6	...	30	...
Keratitis	...	...	1	...
Corneal Opacities	1	...	3	...
Defective Vision (excluding Squint)	150	...	59	19
Squint	26	5	12	3
Other Conditions	10	34	102	2
<i>Ear—</i>				
Defective Hearing	43	1	53	...
Otitis Media	...	...	108	67
Other Ear Diseases	119	7	246	21
<i>Nose and Throat—</i>				
Enlarged Tonsils only	42	93	97	92
Adenoids only	3	11	14	1
Enlarged Tonsils and Adenoids	5	8	48	1
Other Conditions	59	22	123	11
Enlarged Cervical Glands (Non-Tuberculous)	7	19	87	31
Enlarged Thyroid Gland	51	7	47	...
Defective Speech	5	8	...	2

TABLE II. A.—(Continued).

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
	No. of Defects.		No. of Defects.	
	Requiring Treatment.	Requiring to be kept under observation, but not requiring Treatment.	Requiring Treatment	Requiring to be kept under observation, but not requiring Treatment.
(1)	(2)	(3)	(4)	(5)
<i>Teeth</i> —Dental Diseases (See Table IV., Group IV.)	368	...	17	...
<i>Heart and Circulation</i> —				
Heart Disease:				
Organic	...	...	1	...
Functional	2	42	2	20
Anaemia	3	4	2	1
<i>Lungs</i> —				
Bronchitis	10	...	6	1
Other Non-Tuberculous Diseases ...	10	9	18	11
<i>Tuberculosis</i> —				
Pulmonary:				
Definite	...	...	...	...
Suspected	...	...	...	...
Non-Pulmonary:				
Glands	...	...	2	...
Spine	1	1	...	1
Hip	...	...	...	...
Other Bones and Joints	...	...	...	...
Skin	1	...	...	...
Other Forms	...	...	...	...
<i>Nervous System</i> —				
Epilepsy	...	3	1	...
Chorea	2	...	9	2
Other Conditions	10	23	26	19
<i>Deformities</i> —				
Rickets	5	8	8	2
Spinal Curvature	5	17	8	4
Other Forms	21	17	17	11
Other Defects and Diseases	78	44	687	37

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	879	208	23.7
Intermediates	981	245	25.0
Leavers	646	154	23.8
Total (Code Groups)	2506	607	24.2
Other Routine Inspections	—	—	—

TABLE III.—Return of all Exceptional Children in the Area.

			Boys	Girls	Total
Children suffering from the following types of Multiple Defect, <i>i.e.</i> , any combination of Total Blindness, Total Deafness, Mental Defect, Epilepsy, Active Tuberculosis, Crippling (as defined in penultimate category of the Table), or Heart Disease			1	3	4
Blind (including partially blind).	(i) Suitable for training in a School for the totally blind.	At Certified Schools for the Blind	2	1	3
		At Public Elementary Schools	...	...	...
		At other Institutions	...	...	...
		At no School or Institution	...	...	...
	(ii) Suitable for training in a School for the partially blind.	At Certified Schools for the Blind or Partially Blind...	...	...	...
		At Public Elementary Schools	2	...	2
		At other Institutions	1	...	1
		At no School or Institution	...	...	...
Deaf (including deaf and dumb and partially deaf).	(i) Suitable for training in a School for the totally deaf or deaf and dumb.	At Certified Schools for the Deaf	4	1	5
		At Public Elementary Schools	...	...	...
		At other Institutions	...	...	...
		At no School or Institution	...	...	...
	(ii) Suitable for training in a School for the partially deaf.	At Certified Schools for the Deaf or Partially Deaf ...	...	...	...
		At Public Elementary Schools	2	...	2
		At other Institutions	...	...	...
		At no School or Institution	...	...	...
Mentally Defective.	Feeble-minded.	At Certified Schools for Mentally Defective Children	14	3	17
		At Public Elementary Schools	5	2	7
		At other Institutions	...	...	...
		At no School or Institution	...	3	3

TABLE III.—(Continued).

			Boys	Girls	Total
Epileptics.	Suffering from severe epilepsy.	At Certified Schools for Epileptics	2	...	2
		At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	...	...	...
		At Public Elementary Schools	...	...	...
		At other Institutions	...	1	1
		At no School or Institution	1	...	1
Physically Defective.	Suffering from epilepsy which is not severe.	At Public Elementary Schools	9	1	10
		At no School or Institution	...	...	...
	Active pulmonary tuberculosis (including pleura and intrathoracic glands).	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	...	...	...
		At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	...	...	...
		At Public Elementary Schools	...	...	...
		At other Institutions	...	...	...
		At no School or Institution	...	...	...
	Quiescent or arrested pulmonary tuberculosis (including pleura and intrathoracic glands).	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	...	...	...
		At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	...	...	...
		At Public Elementary Schools	1	...	1
		At other Institutions	...	...	...
		At no School or Institution	...	...	...

TABLE III.—(Continued).

			Boys	Girls	Total
Physically Defective —(contd.).	Tuberculosis of the peripheral glands.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	...	...	...
		At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	...	...	...
		At Public Elementary Schools	8	7	15
		At other Institutions	...	...	...
		At no School or Institution	...	...	...
	Abdominal tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	...	...	...
		At Certified Residential Open Air Schools	...	...	...
		At Certified Day Open Air Schools	...	...	...
		At Public Elementary Schools	9	2	11
		At other Institutions	...	...	...
		At no School or Institution	...	...	...
	Tuberculosis of bones and joints (not including deformities due to old tuberculosis.	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	1	1	2
		At Public Elementary Schools	6	4	10
		At other Institutions	...	...	...
		At no School or Institution	1	1	2
	Tuberculosis of other organs (skin, etc.).	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	...	...	...
		At Public Elementary Schools	1	...	1
		At other Institutions	...	...	...
		At no School or Institution	...	...	...

TABLE III.—(Continued).

			Boys	Girls	Total
Physically Defective —(contd.).	Delicate Children, i.e., all children (except those included in other groups) whose general health renders it desirable that they should be specially selec- ted for admis- sion to an Open Air School.	At Certified Residential Cripple Schools At Certified Day Cripple Schools At Certified Residential Open Air Schools At Certified Day Open Air Schools At Public Elementary Schools At other Institutions At no School or Institution	...	...	...
	Crippled Children (other than those with ac- tive tuberculous disease) who are suffering from a degree of crippling suf- ficiently severe to interfere materially with a child's normal mode of life.	At Certified Hospital Schools At Certified Residential Cripple Schools At Certified Day Cripple Schools At Certified Residential Open Air Schools At Certified Day Open Air Schools At Public Elementary Schools At other Institutions At no School or Institution	1	...	1
	Children with heart disease, i.e., children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public ele- mentary school.	At Certified Hospital Schools At Certified Residential Cripple Schools At Certified Day Cripple Schools At Certified Residential Open Air Schools At Certified Day Open Air Schools At Public Elementary Schools At other Institutions At no School or Institution	...	...	...

TABLE III.—(Continued).

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	None	—	1
Blind and Epileptic	None	—	1
Total ...	—	1	3

Statement of the number of Children notified during the Year ended 31st December, 1931, by the Local Education Authority to the Local Mental Deficiency Authority.

Total number of Children notified—1.

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 	—	—
(b) Imbeciles	1	—
(c) Others 	—	—
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :		
(a) Moral defectives ...	—	—
(b) Others 	—	—
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>i.e.</i> , "special circumstances" cases 	—	—
4. Children who in addition to being mentally defective were blind or deaf 	—	—
GRAND TOTAL 	1	—

TABLE IV.—Return of Defects Treated during the Year ended 31st December, 1931.

TREATMENT TABLE.

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

DISEASE OR DEFECT.	Number of Defects treated, or under treatment during the year.		
	Under the Authority's Scheme.	Otherwise.	Total.
<i>Skin—</i>			
Ringworm—Scalp	20	8	28
Ringworm—Body	10	—	10
Scabies	14	—	14
Impetigo	91	—	91
Other Skin Disease	149	—	149
Minor Eye Defects (External and other, but excluding cases falling in Group II).	167	—	167
Minor Ear Defects, &c.	113	—	113
Miscellaneous (e.g., minor injuries, bruises, sores, chilblains, etc.)	822	4	826
Total	1386	12	1398

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 practitioner or at hospital apart from the Authority's Scheme.	Otherwise	Total.
Errors of Refraction (including Squint)	558	—	—	558
Other Defect or Disease of the Eyes (excluding those recorded in Group I.)	34	—	—	34
Total	592	—	—	592

Total number of children for whom spectacles were prescribed :

(a) Under the Authority's Scheme	...	...	...	439
(b) Otherwise	...	...	...	—

Total number of children who obtained or received spectacles :

(a) Under the Authority's Scheme	...	...	...	386
(b) Otherwise	...	...	...	3

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	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Total.		
112	—	112	122	234

Group V.—Uncleanliness and Verminous Conditions.

(i)	Average number of visits per school made during the year by the School Nurses	...	...	...	8
(ii)	Total number of examinations of children in the Schools by School Nurses	...	...	...	28506
(iii)	Number of individual children found unclean	...	...	...	1572
(iv)	Number of children cleansed under arrangements made by the Local Education Authority	...	...	...	628
(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, 1931.

Disease or Defect.	No. of Defects treated under Authority's Scheme			Number of Defects Cured	No. of Defects remaining under Treatment.	No of Attendances at Clinic.	No. of Consultations
	From previous Year.	New Cases	Total				
<i>Contagious Skin Diseases—</i>							
Impetigo	1	90	91	89	2	554	320
Scabies	...	14	14	14	...	96	54
<i>Non-Contagious Skin—</i>							
Dermatitis	...	4	4	4	...	17	13
Eczema	1	4	5	5	...	19	15
Seborrhoea	...	6	6	6	...	22	18
Pityriasis Rosea	...	1	1	1	...	2	1
Abscesses	...	5	5	5	...	20	19
Boils	1	22	23	23	...	140	107
Warts	4	19	23	19	4	174	37
Herpes	...	12	12	12	...	29	21
Urticaria	...	6	6	6	...	21	14
Psoriasis	...	2	2	2	...	28	24
Alopecia	...	1	1	1	...	8	4
Intertrigo	...	2	2	2	...	20	14
Other Diseases	2	53	55	55	...	196	149
<i>Ear, Nose and Throat Diseases—</i>							
Glands	...	43	43	43	...	155	135
Rhinitis	...	4	4	4	...	15	12
Tonsillitis	...	12	12	12	...	34	32
Other Diseases	...	54	54	54	...	107	99
<i>Wounds and Injuries—</i>							
Injuries, Grazes, &c.	...	104	104	104	...	504	401
Bites and Stings	...	33	33	33	...	84	76
Burns, Scalds, Cuts, &c.	1	80	81	81	...	415	305
Septic Sores	7	182	189	188	1	1523	872
Bruises and Sprains	...	36	36	36	...	136	123
Others	...	137	137	137	...	603	407
<i>External Eye Diseases—</i>							
Foreign Body	...	8	8	7	1	19	18
Stye	...	37	37	37	...	143	115
Blepharitis	...	35	35	34	1	190	151
Conjunctivitis	1	26	27	24	3	233	199
Corneal Ulcer	1	3	4	4	...	103	92
Strabismus	...	3	3	3	...	3	3
Keratitis	...	1	1	1	...	1	1
Pink Eye	...	8	8	7	1	177	158
Other Diseases	2	42	44	44	...	119	88

TABLE V.—(Continued).

Disease or Defect.	No. of Defects treated under Authority's Scheme			Number of Defects Cured	No. of Defects remaining under Treatment.	No. of Attendances at Clinic.	No. of Consultations.
	From previous Year.	New Cases	Total				
<i>Infectious Diseases—</i>							
Chicken Pox	...	4	4	3	1	6	5
Whooping Cough	...	2	2	2	...	...	2
Diphtheria	...	3	3	3	...	3	3
Pneumonia	...	2	2	2	...	2	2
<i>General—</i>							
Ill-health, &c.	...	98	98	98	...	258	173
TOTALS	21	1198	1219	1205	14	6181	4282

Total number of Children Treated ... 908

TABLE VI.—Treatment of Defects of Nose, Throat and Ear at Special Clinic.

DEFECTS.														
Number of cases referred for treatment	Number of Consultations	Number of attendances for treatment	Tonsils considerably enlarged	Tonsils enlarged	Tonsils and Adenoids	Adenoids	Tonsillitis	Inflamed Turbinates	Cervical and other Glands	Nasal Spurs, Deflections and obstructions	Nasal Inflammation	Poly-pi	Myringitis, Diseases and Perforation of Membranes	Diphtheria
440	1318	1424	52	94	44	14	8	3	60	19	40	5	31	1

DEFECTS (Continued)										No. of cases remaining under treatment or kept under observation	No. of cases for whom no report is available		
Discharging ears	Inflamed Membranes	Thickened Scarred and Opaque Membranes	Indrawn Membranes	Deafness (Slight)	Deafness (Severe)	Wax in ears	Other conditions	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		
109	10	65	66	49	—	52	95	114	110	2	304	122	14

TABLE VII.—Electrical Ionisation.

Number of Cases erred for Treatment.	Number of Consultations.	Number of Attendances for Treatment.	DEFECT.		Number of Cases still under Treatment or Observation.	Number of Cases for whom no Report is available.
			Dis- charging Ears.	Septic wound		
17	43	43	16	1	2	—

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.	
24	14	38	176	240	56	27	9	2	—

TABLE IX.—Electrical Treatment.

NUMBER OF CASES.			Number of Attendances for Treatment.	DISEASE OR DEFECT.	
Boys.		Girls.		Infantile Paralysis	Nævus
Old	New	Old	New	Total	
3	6	5	6	20	6
			296	14	

TABLE X.—Summary of School Accidents which occurred during the year 1931.
(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.				
—	141	141	137	20	4	—
		540				

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 1931.

Group examined.	Number of Children examined.			Number of Children found with enlargement of the Thyroid Gland.		
	Boys	Girls	Total	Boys	Girls	Total
Entrants ...	450	429	379	2	3	5
Intermediates ...	482	499	981	1	9	10
Leavers ...	326	320	646	17	35	52
TOTAL ...	1258	1248	2506	20	47	67

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				
36	44	80	445	445	28	52

TABLE XIII.—Bacteriological and Other Examinations carried out during the Year 1931.

Number of Bacteriological examinations ...	...	129
Number of Blood examinations—Histological ...	...	86
Urine—Number of Chemical examinations ...	...	8
Number of Microscopical examinations ...	...	7
Number of X-ray examinations ...	...	159

HIGHER EDUCATION.

Statistical Tables.

Higher Education.

TABLE I.—Number of Children attending the Swindon Secondary Schools inspected during the Year ended 31st December, 1931.

A.—ROUTINE MEDICAL INSPECTIONS.

		AGE GROUPS.									Total.
		11	12	13	14	15	16	17	18	19	
Boys	...	28	98	95	81	95	65	31	17	—	510
Girls	...	11	49	62	48	54	49	19	6	1	299
Totals	...	39	147	157	129	149	114	50	23	1	809

B.—OTHER INSPECTIONS.

Number of Special Inspections	...	...	...	...	228
Number of Re-Inspections	...	...	...	...	691
Total	...	...	...	...	919

**TABLE II.—A.—Return of Defects found by Medical Inspection
in the Year ended 31st December, 1931.**

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
	No. of Defects.		No. of Defects.	
	Requiring treatment.	Requiring to be kept under obser- vation but not re- quiring treatment.	Requiring treatment.	Requiring to be kept under obser- vation but not re- quiring treatment.
(1)	(2)	(3)	(4)	(5)
<i>Skin—</i>				
Impetigo	...	...	1	...
Other Diseases (non-Tuberculous)	2	...	10	...
<i>Eye—</i>				
Blepharitis	1	...	...	...
Defective Vision	79	31	10	3
Other Conditions	2	3	18	...
<i>Ear—</i>				
Defective Hearing	11	1	3	...
Otitis Media	...	3	14	...
Other Ear Diseases	3	2	8	...
<i>Nose and Throat—</i>				
Enlarged Tonsils only	6	4	5	5
Adenoids only	...	...	1	...
Enlarged Tonsils and Adenoids	1	...	3	...
Other Conditions	9	1	7	...
<i>Glands—</i>				
Enlarged Cervical and Sub-max: (non-Tuberculous)	...	...	2	1
Enlarged Thyroid	63	3	1	...
<i>Teeth—</i>				
Dental Diseases	2	...	...	...
<i>Heart and Circulation—</i>				
Heart Disease—Functional	4	9	1	3
Anaemia	10	1	...	...
<i>Lungs—</i>				
Bronchitis	...	1	...	...
Other Non-Tuberculous Diseases	...	12	...	...
<i>Nervous System—</i>				
Chorea	...	1	...	...
Other Conditions	27	15	...	...

TABLE II.—A.—(Continued).

DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
	No. of Defects.		No. of Defects.	
	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation but not requiring treatment.
(1)	(2)	(3)	(4)	(5)
<i>Deformities—</i>				
Rickets	2	1	...	...
Spinal Curvature	63	10	6	...
Other Forms	85	6	8	2
<i>Other Defects or Disease</i>	15	20	82	5

TABLE III.—Summary of Accidents which occurred to Secondary School Children during the Year 1931.

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.					
—	44	186	43	15	1	—
	Total.	44				

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, 1931.

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.
<i>Skin—</i>			
Impetigo	1	—	1
Other Skin Disease	7	1	8
Minor Eye Defects	16	—	16
Minor Ear Defects	1	—	1
Miscellaneous (e.g., minor injuries, bruises, sores, etc.)	69	1	70
Total	94	2	96

TABLE IV.—(Continued).

Group II.—Defective Vision and Squint.

DEFECT OR DISEASE.	No. of Defects dealt with			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme.	Otherwise	Total.
Errors of Refraction (including Squint)	85	—	—	85
Other Defect or Disease of the Eyes	5	—	—	5
Total	90	—	—	90

Total number of Children for whom Spectacles were prescribed :

(a) Under the Authority's Scheme	...	...	...	74
(b) Otherwise	...	...	...	—

Total number of Children who obtained or received Spectacles :

(a) Under the Authority's Scheme	...	...	...	67
(b) Otherwise	...	...	...	4

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.	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Total.		
6	—	6	12	18

TABLE IV.—(Continued).

GROUP IV.—Dental Defects, Dental Inspection and Treatment.

(1) Number of Children who were:—

(a) Inspected by the Dentist:

Age Groups	Aged	11	76	}	Total	780
		12	133			
		13	143			
		14	122			
		15	167			
		16	76			
		17	49			
		18	14			

Specials	...	...	...	...	...	—
----------	-----	-----	-----	-----	-----	---

Grand Total	...	...	...	...	...	780
-------------	-----	-----	-----	-----	-----	-----

(b) Found to require treatment ... 348

(c) Actually treated ... 208

(2) Half days devoted to:	{ Inspection 10	}	Total ...	93
	{ Treatment 83			

(3) Attendances made by Children for treatment ... 345

(4) Fillings	{ Permanent teeth 264	}	Total ...	264
	{ Temporary teeth —			

(5) Extractions	{ Permanent teeth 43	}	Total ...	86
	{ Temporary teeth 43			

(6) Administrations of general anæsthetics ... —

(7) Other operations	{ Permanent teeth 82	}	Total ...	91
	{ Temporary teeth 9			

TABLE IV.—(Continued).

GROUP IV.—Condition of Teeth of Scholars Dentally Inspected at the Secondary Schools during the Year 1931.**THE COLLEGE SECONDARY SCHOOL.****BOYS.**

Year of Birth.	Number of Carious Teeth.						Number free from Caries.	Total number examined.
	1	2	3	4	5	6		
1913	2	2	...	...	...	...	5	9
1914	4	3	...	1	...	...	11	19
1915	8	2	...	...	...	...	13	23
1916	8	4	...	...	...	...	27	39
1917	8	2	...	...	...	...	12	22
1918	13	3	1	...	...	...	17	34
1919	9	2	...	...	...	...	13	24
1920	5	1	2	2	...	...	6	16
Totals	57	19	3	3	...	...	104	186

GIRLS.

Year of Birth.	Number of Carious Teeth.					Number free from Caries.	Total number examined.
	1	2	3	4	7		
1913	...	...	...	...	...	1	1
1914	2	...	...	...	...	3	5
1915	3	...	...	...	...	8	11
1916	5	3	...	...	...	13	21
1917	3	1	...	1	...	8	13
1918	7	...	...	...	1	10	18
1919	7	2	2	...	...	10	21
1920	6	1	...	...	...	2	9
Totals	33	7	2	1	1	55	99

EUCLID STREET SECONDARY SCHOOL.**BOYS.**

Year of Birth.	Number of Carious Teeth.						Number free from Caries.	Total number examined.
	1	2	3	4	5	8		
1914	...	...	...	...	...	...	2	2
1915	2	3	...	...	...	...	6	11
1916	5	2	1	2	...	1	11	22
1917	9	3	1	1	...	...	17	31
1918	9	2	4	...	...	...	18	33
1919	10	9	2	1	...	...	12	34
1920	6	4	...	...	1	...	3	14
Totals	41	23	8	4	1	1	69	147

TABLE IV.—(Continued). Group IV.—(Continued).
EUCLID STREET SECONDARY SCHOOL.
GIRLS.

Year of Birth.	Number of Carious Teeth.				Number free from Caries.	Total number examined.
	1	2	3	4		
1914	...	...	...	...	1	1
1915	3	2	...	...	3	8
1916	4	...	1	1	16	22
1917	3	...	1	...	14	18
1918	3	...	1	...	11	15
1919	5	1	1	2	6	15
1920	1	...	1	...	3	5
Totals	19	3	5	3	54	84

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	7	8		
1913	1	1	...	...	...	...	...	...	1	3
1914	2	...	...	...	...	...	...	...	8	10
1915	4	...	1	...	1	...	1	...	8	15
1916	9	2	1	1	...	...	...	...	25	38
1917	7	1	...	...	1	...	...	...	18	27
1918	2	1	...	1	...	...	...	...	17	21
1919	11	2	1	...	...	...	...	...	12	26
1920	7	1	1	1	1	1	...	1	5	18
Totals	43	8	4	3	3	1	1	1	94	158

GIRLS.

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	1	...	...	9	12
1915	2	...	...	...	...	6	8
1916	7	3	...	1	1	13	25
1917	...	1	...	...	...	10	11
1918	5	5	...	...	...	12	22
1919	5	3	...	...	...	5	13
1920	3	2	3	1	...	5	14
Totals	23	15	4	2	1	61	106

TABLE IV.

GROUP IV.—(Continued).—Summary of Results of Dental Inspection at the Secondary Schools, Year 1931.

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 ...	89	32	196	94	285	126	159
Euclid Street ...	54	33	177	75	231	108	123
The Commonweal ...	59	41	205	68	264	109	155
Totals ...	202	106	578	237	780	343	437

Percentage of Entrants requiring Treatment ... 52.4
 Percentage of Children Re-inspected requiring Treatment ... 41.0
 Percentage of total number of Children inspected requiring Treatment ... 43.9

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				
25	29	54	226	226	20	34

TABLE VI.—Treatment of Defects discovered in Secondary School Children.

NUMBER OF DEFECTS.						
DEFECT OR DISEASE.	Referred for Treatment.	TREATED.			Not Treated.	For whom no report is available.
		Under Local Education Authority's Scheme.	Otherwise.	Total.		
Skin	13	12	1	13	...	...
Vision and Squint	89	66	5	71	17	1
Eye Disease	21	17	3	20	1	...
Ear Disease	25	22	2	24	1	...
Defective Hearing	14	8	4	12	2	...
Nose and Throat	32	20	8	28	4	...
Enlarged Thyroid	64	49	15	64	...	...
Enlarged Glands (Non-Tuberculous)	2	2	...	2	...	...
Heart and Circulation	15	11	4	15	...	...
Lungs, Defective	...	...	...	...	...	...
Nervous System	27	19	8	27	...	...
Deformities	164	160	3	163	...	1
General	97	84	13	97	...	...

Total number of X-Ray Examinations made during the year ... 23



Borough of Swindon

ANNUAL
REPORT

OF THE
Medical Officer of Health

FOR THE YEAR 1931

AND THE

Isolation Hospital Annual Report

From the 1st April, 1931, to the 31st March, 1932

BY

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

Report of the Chief Sanitary Inspector

FOR THE YEAR 1931.

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BOROUGH OF SWINDON.



HEALTH COMMITTEE:

Chairman—Alderman MRS. M. GEORGE.

Vice-Chairman—Councillor J. WEBBER.

Members :

THE MAYOR (Alderman J. L. CALDERWOOD).

Alderman	G. H. HUNT	Councillor	L. J. NEWMAN
"	R. GEORGE	"	Mrs. S. ANDREWS
"	A. W. HAYNES	"	S. E. WALTERS
"	A. E. HARDING	"	L. M. SUTTON
Councillor	T. MANNING	"	F. E. ALLEN
"	A. H. JAMES	"	A. THOMPSON
"	F. E. AKERS	"	A. H. WHEELER.
"	C. C. PRICE		

MATERNITY AND CHILD WELFARE SUB-COMMITTEE:

Chairman—Councillor MRS. S. ANDREWS.

Members :

Alderman	Mrs. M. GEORGE	Councillor	A. H. JAMES
"	G. H. HUNT	"	F. E. ALLEN
"	R. GEORGE	"	A. THOMPSON
"	A. W. HAYNES	"	L. M. SUTTON
"	A. E. HARDING	"	A. H. WHEELER
Councillor	J. WEBBER	Miss	K. J. STEPHENSON
"	T. MANNING	Miss	D. P. CHAPPELL
"	F. E. AKERS	Mrs.	ARNOLD FORSTER
"	C. C. PRICE	Mrs.	WESTON
"	L. J. NEWMAN	Mrs.	SCHMITZ
"	S. E. WALTERS	Miss	I. F. MOORE.

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.

Liverpool University Certificate in Meat and Food Inspection.

Liverpool University Certificate in Sanitary Science.

F. R. G. SELWOOD.

Certificate of the Royal Sanitary Institute.

Head Clerk—ERNEST A. BEASANT.

Assistant Clerks—W. M. WATTS

W. H. PAUL

F. YATES.

PUBLIC HEALTH DEPARTMENT. STAFF—Continued.

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

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.

Health Visitors.

Miss M. HANNA.

3 years General Training.

State Registered Nurse.

Certificate of the Central Midwives Board.

Miss M. JOHNS.

3 years Certificate of Hospital Training.

Certificate of the Central Midwives Board.

Queen's Nurse.

Miss M. HUGHES.

4 years Certificate of Hospital Training.

Certificate of the Central Midwives Board.

Health Visitor's Certificate of the Royal Sanitary Institute.

Disinfecter—G. GREENAWAY.

Voluntary Helpers at Maternity Centres—

Mrs. E. SCHMITZ

Mrs. WESTON.

Mrs. OSMOND

Mrs. HUMPHRIES

Mrs. HULANCE.

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

LADIES AND GENTLEMEN,

I have pleasure in presenting the obituary notice of 1931. It is but fair to a year which was one of the most trying within our recollection, in which everything seemed to go wrong and in which the health conditions of the country deteriorated, to record that in Swindon 1931 was much healthier than its predecessor and that the Health Department underwent greater evolution than in any year in its history.

The main event of 1931 was the completion of the scheme for making maternity safe, not only by the elimination of maternal deaths, but by reduction to the minimum of disablement, anxiety and annoyance associated with childbearing. Since reproduction is the only human function which is of the least permanent consequence, it seems but reasonable that we should, at long last, treat it seriously and that whatever else we may neglect or put off, we should ensure the safety and progressive amelioration of our species. Though the rearing of a population which might be a credit to the earth involves a large number of factors which few men at the present day are sufficiently intelligent or courageous even to discuss, there are some details which are generally admitted, one of which is that the diminishing proportion who carry on the reproduction of our race should be relieved as far as possible from being killed or crippled in the process. In order to obey this mandate a perfectly satisfactory system of midwifery is the first essential. The formula of the scheme which has been introduced into the Borough of Swindon and which is applicable to the neighbouring parts of Wiltshire, can be gathered from the regulations governing the Maternity Home and Centre, which we publish as an appendix; the fruits of its administration form the sections of this report dealing with maternity and child welfare.

It has taken several years to evolve a scheme which would be workable, satisfactory and admit of automatic and immediate solution of any unusual difficulty that might arise from time to time. In formulating this scheme the Maternity Sub-Committee of the Borough has had very valuable help from the County Medical Officer, Dr Tangye, and from members of the Wilts County Council Public Health Committee, notably from Miss Stephenson, who is an acknowledged authority on the subject, and from Mrs. Arnold Forster, who has had a long and valuable experience in connection with midwifery administration.

The scheme is, of course, only applicable in its entirety to Swindon and the neighbourhood and has taken into account local factors which rather ease the situation, but it was not an easy

work and we cannot tell yet whether it will prove completely satisfactory. It has had some severe tests which it has surmounted and it shows favourable signs of being appreciated by the mothers of the district, so ensuring their co-operation, which is of most vital importance.

The most obvious material evidence of the scheme was the opening of the new Maternity Home in Kingshill by the Minister of Health to the late Government on May 13th. This Home we allege to be the last word in efficiency, but it is not by bricks and mortar, or chromium-plated taps, that maternity can be saved from its dangers, but by the proper use of such material conveniences. It is necessary, in order that the results obtained in Swindon under this scheme should be evaluated with fairness, to explain two principles which govern the maternity service and the researches into maternal mortality and morbidity. Locally, we accept what is now becoming universally known as the New South Wales Convention, because we owe it to Dr. Dick, Superintendent of Health of New South Wales. The two chief propositions of the convention are these: First, the death of every woman capable of reproduction is to be considered due, either directly or indirectly, to the reproductive process, unless and until it is proved otherwise; secondly, so far as concerns Maternity Homes, puerperal pyrexia is defined as any febrile condition occurring in a woman from the end of the first to the end of the tenth day after abortion, miscarriage, or childbirth, in which the temperature of 100.4° F. or higher occurs upon more than one day during the period. To satisfy this the temperature is required to be taken and recorded every four hours. Using this definition of puerperal pyrexia in place of that which is official in this country under the Puerperal Pyrexia Order results in notifications being increased about three-fold. What is the advantage of this? Firstly, it prevents the recognition of the more dangerous forms of sepsis being delayed more than four hours from their onset; secondly, it enables us to obtain information of transient pyrexias due to various parasitic reactions and to study the epidemiological situation of the Maternity Home, considered as an isolated population unit of a special character. This enables us, so we believe, to throw material light upon the occurrence of outbreaks of pyrexia which are frequent in maternity hospitals and other institutions and to produce evidence that the human community behaves towards endemic infection in exactly the same way that Professor Topley found to hold in the case of mice colonies. This is of far more than theoretical interest, for the propositions put forward by Topley and Greenwood dominate human epidemiology, and explain, in a manner totally different from that generally accepted, the outbreaks of pyrexia which occur in maternity and other homes.

The experience of the working of the Maternity Home up to the present suggests that the proportion of local women who will be delivered therein will eventually reach some fifty per cent. of the total. We shall not stop to consider whether this tendency for delivery to take place in institutions, which is so much more marked abroad, particularly in Canada, than in this country is, or is not, better than the familial idea that delivery should occur in the mothers' own homes, but we call attention to certain material advantages of the system, particularly in that it allows admission to the Home in emergency to be freed from any formality and consequent delay. There were some half dozen women admitted to the Home for eclampsia and ante-partum haemorrhage who got through safely, whose lives would undoubtedly have been lost had not a speedy method for attending to them been in operation. The one death which occurred in the Home, and the only maternal death of the year which was theoretically preventable, would not have occurred had the woman received earlier attention, which she could have had under the scheme.

In addition to the maternity scheme, an important work of the year was the reconstruction of the Administration Block at the Isolation Hospital. This will be dealt with in the report of the Hospital, but there are certain repercussions of this event which should be mentioned here. It enabled us to undertake the washing for the Maternity Home, which has not a laundry of its own and allowed for housing sufficient staff to increase the number of conditions with which the Isolation Hospital can deal at the same time.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Miss H. E. Hartley, third health visitor, resigned in April, 1931, and was replaced by Miss M. Hughes.

Mr. F. R. G. Selwood was appointed as third assistant sanitary inspector in the place of the late Mr. L. R. Eldred, who, I much regret to record, died in August, 1931. Otherwise, there was no change in the personnel of the department during the year.

GENERAL PUBLIC HEALTH AND SANITATION OF THE TOWN.

WATER SUPPLY.

Work was started on the scheme for obtaining water from Latton. It is reckoned that this plant, when completed, will be able to furnish about 3,000,000 gallons a day and should settle

the water needs of the town for many generations to come. The Latton water comes from the Great Oolite. Analysis shows it to be of a high degree of purity, but of nearly similar hardness to the present supply from Ogbourne. At some future date Swindon Corporation may decide to soften the town water supply for domestic and trade purposes. From the public health point of view there is no call for softening the water, as the somewhat high lime content is advantageous to the population, which is apt to suffer from lack of iodine.* The experiments that were carried out in connection with the prevalence of thyroid disease in the district revealed that the iodine in the present water supply is the lowest of any water in the country and that deficiency of iodine in the soil results in a low iodine content of locally grown food-stuffs. What the iodine content of the Latton waters may be we do not know. Water softening, besides removing lime, has a sterilizing effect upon water supplies; but to the Swindon water obtained from Ogbourne and for that which will be obtained from Latton, such sterilization would be of no value, as these waters are as nearly sterile as it is possible to obtain by any means, the average content of organisms capable of growing at blood-heat being less than 1 per c.c.

A small quantity of water is obtained from Wroughton, which is very slightly contaminated with organic matter. This water is chlorinated and, after chlorination, is perfectly safe.

DRAINAGE AND SEWERAGE.

There were many periods of excessive rainfall in 1931 which overtaxed the drainage of some of the lower-lying parts of the town, so we had more complaints of flooding than we have had for some five or six years. The complaints, in general, were justifiable and though the conformation of the town renders a perfect system of drainage difficult, it is quite possible to achieve such perfection, but the expense of doing so is so tremendous that the remedy must take many years to complete. During the past ten years very much has been done to relieve the tendency of the lower part of the town from being flooded, and what has been done is sufficient to keep the town dry except in excessively wet years.

HOUSING.

During the year the local authority built 76 new houses and private bodies or persons another 149, making a total of 225.

* Though iodine-poor waters are generally hard, it appears, from analyses done in various parts of the world that high lime content is an advantage when iodine is deficient.

No houses were demolished or closed. The new houses should accommodate about 1,000 persons, which is about three times the natural increase of the population, so that there was ample margin for relieving congestion. We have not at the time of going to press the details of the Census of 1931, but it is perfectly certain that these will show a density of persons per house and of rooms per person which are favourable and that the town is very far from being overcrowded; so that, in theory, no overcrowding, or housing difficulty exists locally. In practice there is no such happy state of affairs, for the difficulties of housing the population are due as much to lack of means as to lack of houses; in fact we can say positively that in Swindon there is no longer any great lack of houses, but that there is such lack of means that not everybody can afford to pay for the accommodation.

From the very beginning of post-war housing legislation it has been pointed out, mainly by medical officers, that neither the original scheme nor any which has since been introduced, could settle the difficulties of housing the population. During 1931 this was at last recognised by the Ministry of Health and some attempt made to grapple with the most difficult part of the problem. This problem is the undesirable tenant. There are four classes of undesirable tenants from the house-owners point of view, whether private or municipal, namely: (1) the tenant who cannot pay an economic rent; (2) the tenant with a large family of young children, who have not the same feeling towards house decoration as the owner, or surveyor; (3) the tenant of low mentality who is incapable of keeping either himself or his premises in respectable order; and (4) the tenant of low morality. It is useless to try to blind ourselves to the existence of these four classes, or to underestimate the difficulty of dealing with them.

As regards the first, i.e., the tenant against whom there is nothing except poverty, it is a paying proposition for the community to relieve his poverty as far as possible; in other words, to supply him with accommodation at a loss. This class gets some sympathy, but generally not sufficient to overcome its difficulties. It has been pointed out over and over again by those who do understand the housing of the working classes that it is more important that accommodation should be cheap than good and that the jerry-builder is more useful than the architect. Many countries abroad have settled this part of the housing difficulty better than we have and their methods are at last being considered by authorities in this country.

The second class of so-called undesirable tenant, namely, the large family, deserves something better than sympathy. In the

present low state of communal morality this class suffers not only from hardships which are inseparable from large families, but has to bear the added insults of rotten moralists. The Housing Committee of Swindon deserve great praise in that in their allocation of the houses at their command they have always had a sympathetic attitude towards the large families, which is by no means evident in all housing committees. It is unfortunately true that this sympathetic attitude causes the Housing Committee much heartburning and exposes them to a deal of criticism by those ratepayers who think all of property and nothing of people.

The third class of undesirable tenant presents a most difficult problem. It is common amongst that large class of the community which seeks to shirk and not to face difficulties, to ignore this class and to maintain that supplying favourable accommodation results automatically in the tenants taking care of it. We should doubt if anybody who has served on a housing committee retains this delusion, yet the matter calls for a remedy which has not been found up to the present. Probably the most favourable solution of this difficulty is the supply of a number of houses built of an extremely simple type, made of indestructible material and devoid of all fittings which are not absolutely essential to existence.

The immoral household is a different problem. There is a not unreasonable reluctance to grant extraordinary communal privileges to a worn-out prostitute with a family of illegitimate children which she is educating in her own trade, yet this also has to be faced, not, fortunately, on a large scale and in compact inland towns like Swindon only to a minute, though not entirely negligible, extent.

INSPECTION AND CONTROL OF FOOD STUFFS.

The details of this work will be found in the report of the Sanitary Inspector. During the Summer months the Deputy Medical Officer of Health, Dr. Logan, was able to devote some time to the bacteriological examination of milk samples. Altogether 46 samples were examined, details of which will be found in Appendix III.

MATERNITY AND NURSING HOMES.

There are four maternity and nursing homes on the register, as follows:—

Name of Home.	No. of cases for which accommodation is available.	Class of cases taken.
"The Haven" Maternity Home	3	Maternity. Occasional general cases (clean only) are taken when no maternity work is booked.
Cheriton Nursing Home ...	12	2 beds for Maternity cases ; the remainder for general.
Glenwood Nursing Home ...	12	General & occasional Maternity.
Padstow Cottage ...	2	General Nursing.

There were no new applications, nor any change during the year.

NURSING IN THE HOME.

Swindon has a District Nursing Association with two nurses, not under the control of the Corporation.

LABORATORY FACILITIES.

There was no change in the arrangements for the examination of clinical material. Most of this work is done at the Health Office, but where biological or special methods are required specimens are sent to Bristol or Liverpool University.

HOSPITALS.

The only change in the hospital situation in Swindon was the closing of the old Maternity Home and the opening of the new one, and the only change in the clinic and treatment centres was the re-organisation of the Ante-natal Clinics. These matters are dealt with in other parts of the report.

CHILDREN ACT, 1908.

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

ANNUAL STATISTICS RELATING TO THE MATERNITY HOME, 1931.

Maternity and Child Welfare.

ANNUAL STATISTICS RELATING TO THE MATERNITY HOME, 1931.

	Milton Road Home. (Closed 19-5-31)	Kingshill Home. (Opened 19-5-31)		
		Borough	County	Total
(1) Number of cases in the Home on 1st January, 1931. ...	4	—	—	4
(2) Number of cases admitted during 1931. ...	99	164	23	286
(3) Number of cases remaining in the Home on 1st January, 1932. ...	—	11	—	11
(4) Average duration of stay.	14.14 days	14.14 days	14.14 days	—
(5) No. of cases delivered by :—				
(a) Midwives ...	81	109	15	205
(b) Doctors ...	11	37	6	54
No. of cases in which no delivery took place. ...	7	18	2	27
(6) No. of cases in which medical assistance was sought by the midwife.	42	76		118
(7) No. of cases notified as:—				
(a) Puerperal Fever	(a) —	—		—
(b) Puerperal Pyrexia.	(b) 5	16		21*
(8) No. of cases of pemphigus neonatorum. ...	—	—		—
(9) No. of cases notified as ophthalmia neonatorum, with result of treatment in each case. ...	—	1 Cured without damage to the sight.		1
(10) No. of infants not entirely breast-fed while in the Institution. ...	1	1		2
(11) No. of maternal deaths, with causes. ...	—	1 Admitted moribund from ante-partum hæmorrhage.		1

* According to the way in which the Puerperal Pyrexia Order is read generally, 4 of the cases in Milton Road and 11 of those in Kingshill were not notifiable. Every case recovered completely. 2 of the Kingshill cases were removed to the Isolation Hospital.

(12) (a) No. of foetal deaths :— (i) still-born (ii) within 10 days of birth (b) Cause of death in each case, and results of post-mortem examination (if obtainable).	Milton Road Home	Kingshill Home	Total
	4 4 Still-births : 1 Macerated. Full-term. Cause unknown. 1 Placenta praevia. 2 Causes unknown Deaths within 10 days of birth : 1 Premature 7 months, twin. Death on the first day. 1 Premature 7 months, twin. Death on the second day. 1 Premature 36 weeks. Footling presentation. Death on the first day. 1 Premature 30 weeks. Weighed 2lb. 2oz. Death on the third day.	4 6 Still-births : 1 Macerated. Mother eclampsia. 30 weeks premature. 1 Macerated. Ante-partum haemorrhage. Full term. 1 Ante-partum haemorrhage. 7 months premature. 1 Albuminuria. Deaths within 10 days of birth : 1 Death on the 5th day. Cerebral injury. 1 Death on the 1st day. Premature 36 weeks. Placenta praevia. 1 Death on the 10th day. Left-sided empyema. P.M. 1 Death on the 1st day. Placenta praevia. Premature 34 weeks. 1 Death on the 2nd day. Cerebral injury. P.M. 1 Death on the 1st day. Cranium full of blood. 1 Death on the 1st day. Cause unknown. Also 1 death on the 15th day. 7 months premature.	8 16

Of the 259 cases delivered in the Maternity Homes, 46 were delivered by forceps, giving a forceps rate of 18%. Of the 213 spontaneous deliveries, 55 had ruptured perineum, giving a rate of 26%, and of the instrumental deliveries, 28 had ruptured perineum, giving a rate of 60%. There were 8 stillbirths, giving a rate of 30 per 1,000. The total stillbirths in the Borough were 34, giving a rate of 36.02. There were two induced abortions in Milton Road Home, one for diabetes and one for contracted pelvis. The infants dying within ten days in the Homes were 10, giving a rate of 39.8 per 1,000. In the Borough there were 27, giving a rate of 29. There was one Caesarean section, six cases of placenta praevia, four of eclampsia and one of mania. With the exception of one of the cases of placenta praevia that was admitted moribund, every case was treated to a successful issue in the Maternity Home, except two cases of pyrexia which were removed to the Isolation Hospital, where they recovered.

When it is borne in mind that the Home deals with practically all difficult and dangerous cases of maternity which occur in the Borough, these results must be considered satisfactory evidence that the maternity scheme which is now in operation does, in fact, carry out the mandate for which it was formed, namely: that a scheme for maternity work shall be introduced in the Borough of Swindon which shall ensure, as far as possible, safety for the mothers of Swindon, and that death from reproduction which is theoretically preventable, shall, in fact, be prevented.

EXTERN MIDWIFERY DEPARTMENT.

Swindon Maternity Home is a recognised training school for midwives and has an extern department, managed by the same staff as the Home.

In 1931 there were 161 deliveries and 8 miscarriages in the district. One of these cases was transferred to the Home. Among these 161 deliveries there were 6 stillbirths and 4 deaths of infants during the first ten days. Medical aid was sought in 54 cases.

During the year, 11 probationers were under instruction. Of these, 5 obtained the certificate of the Central Midwives Board and 2 resigned.

REPORT ON WORK DONE AT THE MATERNITY CLINIC, 1931.

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

The Clinics have been well attended during the year, the total number of visits by expectant mothers exceeding those of last year by over four hundred.

Of the 226 expectant mothers, 139 were primigravida.

The stillbirth figures represent 2.3 per cent. of the deliveries, and the neo-natal mortality 3 per cent.

One of the 7 cases of goitre was treated for this during pregnancy.

In 21 cases, forceps were applied for delay in the second stage of labour. Reasons for the other cases were: Delay in first stage, with inertia 1, malpresentations 3, small pelvic outlet 1, foetal distress 1, twin birth 1. In 11 cases no reason was stated.

Induction was performed in 4 cases for contracted pelvis, in 2 of which instruments also were used; in 3 cases there was disproportion between the head and the pelvis; in 1 the pelvic outlet was contracted. In the other 4 no definite reason was given.

There were no maternal deaths.

V. REDMAN KING,

Asst. Medical Officer of Health.

Public Health Department,

61, Eastcott Hill,

Swindon.

STATISTICS RELATING TO THE MATERNITY CLINIC, 1931.

No. of old cases on the books	...	...	...	62
No. of new cases	...	...	...	252
Total	...	...	...	314
Attendances at Doctor's Clinic	...	...	...	1110
Attendances at Matron's Clinic	...	...	...	1342
Attendances at Consultant's Clinic	...	...	...	33
Total	...	...	...	2485
Carried forward into 1932	...	...	...	107
Urine examinations	...	...	...	2020
Wassermann tests	...	...	...	2
X-rayed	...	...	...	2
Gynaecological and post-natal cases	...	...	...	13
Cases of doubtful pregnancy	...	...	...	13
Booked for Maternity Home	...	...	...	188
Booked for District	...	...	...	72
Other cases	...	...	...	66
Referred to Consultant	...	...	...	25
Referred to family doctor	...	...	...	5
Referred to dentist	...	...	...	11

Conditions found at Clinics:—

Albuminuria	...	...	...	...	18
Contracted pelvis	...	...	...	...	4
Enlarged thyroid	...	...	...	...	7
Heart disease	...	...	...	...	2
Mastitis	...	...	...	...	2
Prolapse	...	...	...	...	2
Varicose veins	...	...	...	...	37
Pyorrhoea	...	...	...	...	7
Anaemia	...	...	...	...	3
Fibroids	...	...	...	...	2

Known Results of Confinements:—

Total number of deliveries	...	...	...	...	...	300
Twins	...	...	...	...	...	7
Premature	...	...	...	...	...	4
Inductions	...	...	...	...	...	12
Forceps	...	...	...	...	...	39
Caesarean	...	...	...	...	...	1
Breech	...	...	...	...	...	9
Stillborn	...	...	...	...	...	7
Abortions	...	...	...	...	...	2
Puerperal pyrexia	...	...	...	...	...	2
Ante partum haemorrhage	...	...	...	...	...	1
Post partum haemorrhage	...	...	...	...	...	1
Mania	...	...	...	...	...	1
Not known	...	...	...	...	...	5

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.	Comments.
1	24	1	6	District case. Born before arrival of mid-wife.	1st visit: Examination showed a pregnancy of about 28 weeks. Foetal heart faintly heard. Blood pressure 152. 2nd visit: Four days later. Patient complained of abdominal pain. Urine blood-stained. Blood pressure 133. No examination made. Patient advised to stay in bed and send for own doctor if she felt any worse. Baby born the following day.
2	24	1	2	Private mid-wife's case. Premature hydrocephalic in breech position.	1st visit: A healthy mother (no examination), except for slight pyorrhoea and a few bad teeth. 2nd visit: Examination showed nothing definite on palpation. No foetal heart heard. Blood pressure 125. Baby born 1 week later, about 4 weeks premature.

No.	Age	Para.	Visits	Details of Confinements.	Comments.
3	33	5	1	Private mid-wife's case. Ante-partum haemorrhage.	Mother had varicose veins and all teeth were bad. Had 6 months history of symptoms of prolapse, confirmed by examination. Had had treatment by own doctor and was awaiting operation at G.W.R. Hospital. Baby born three weeks later, about 4 weeks premature.
4	35	5	7	District case. Medical aid sought for full dilatation and little progress. Forceps used. Shoulders impacted. Baby weighed 12lbs. ? post-mature.	Mother somewhat anaemic and had some bad teeth, and difficult micturition. Not very well all through pregnancy. Baby born four days after last visit.
5	33	1	6	Born in Maternity Home. Normal delivery. Macerated foetus. Unhealthy placenta.	Mother apparently healthy. Blood pressure normal. No albuminuria, but specimen taken six days before delivery was cloudy. Foetal heart heard ten days before delivery; not audible six days before, and no movements felt. Wassermann proved negative.
6	31	1	6	Born in Maternity Home. Normal delivery. Showed signs of post-maturity.	Mother had some headache and sickness. No albuminuria. Foetal heart clearly heard two weeks before birth. Blood pressure normal each time.
7	24	1	6	Born in Maternity Home. Normal delivery.	Mother healthy. Referred to Consultant's clinic, as baby's head was floating above pelvic brim. Attended there twice. Foetal heart clearly heard eight days before delivery. A trace of albumen found only once in urine.

Neo-Natal Deaths in relation to Ante-Natal Work, 1931.

No.	Age	Para.	Visits	Mother's History	Confinement	Infant's History
1	30	2	6	Had appendicectomy and ovariectomy in 1925. Curettage in 1930, since then irregular menses. Much headache, back-ache and depression. Was attending family doctor for general condition. No albuminuria. Septic gums and bad teeth.	Took place eight days after last visit, in Maternity Home. Natural delivery.	Born prematurely and weighed 2½lbs. Died of inanition at two days.
2	28	1	4	Always had "nervous trouble." Very bad recently. Had domestic worries and shock. Much breathlessness on excitement. Suffered much discomfort from sickness and nausea. Inclined to be hysterical. Admitted for one week to Maternity Home, during last month of pregnancy.	Delivered with forceps. Heavy loss after third stage.	Born about eight weeks prematurely. Weighed 4½lbs. Looked undernourished. Died 38 hrs. after birth.
3	24	1	6	Had slight abdominal pain throughout pregnancy. No albuminuria. Blood pressure varied between 110-132.	Instrumental delivery for prolonged second stage. Posterior lie of head, turned with forceps.	Full-term baby. Died at four days. Head very marked by forceps. Blood and mucus vomited at intervals.
4	41	2	7	First child twenty-three years previously. Normal confinement. Attended Consultant's clinic for tumour felt per abdomen, diagnosed as submucous fibroid. Admitted into Home for 24 hours, for abdominal pain and discomfort, two days before delivery.	Normal delivery of 5½lb. baby.	Umbilicus unsatisfactory from birth. Sepsis and abdominal abscess, followed by peritonitis. Child died at four weeks.

Neo-Natal Deaths in relation to Ante-Natal Work, 1931—(Contd.).

No.	Age	Para.	Visits	Mother's History	Confinement	Infant's History
5	36	1	10	Had some operations for ovarian trouble five years previously. Said to have had high blood pressure. Nose-bleeding in early months of pregnancy, with tendency to slight bleeding all the time. Back-ache and swelling of feet at latter end. Blood pressure varied between 130-163; was as high as that only once and came down gradually to 156, 153, 138. Urine clear till two weeks before delivery and then loaded with albumen.	Hydramnios and twin births. Forceps used on second twin.	White asphyxia. Lived two days.
6	32	6	5	Had had five pregnancies. Three resulted in still-born infants, two of which were premature and the other a malpresentation. One pregnancy miscarried, the other went to full term and was normal. During present pregnancy mother suffered from severe varicose veins, bad teeth and pyorrhoea. Blood pressure normal. No albuminuria. Presentation was vertex on last visit.	Breech, footling presentation. Six weeks after last visit.	Small baby. Lived $1\frac{1}{2}$ hours.

Neo-Natal Deaths in relation to Ante-Natal Work, 1931—(Contd.).

No.	Age	Para.	Visits	Mother's History	Confinement	Infant's History
7	28	4	4	Three previous pregnancies normal. Some cough during present pregnancy and some carious teeth. Blood pressure normal. No albuminuria. Some domestic difficulties and worries.	Baby born three days after last examination, about three weeks premature.	Born before nurse's arrival on district, and lived a few minutes. Inquest held.
8	22	2	4	Mother had rheumatic fever in 1928. Normal confinement in 1930. Heart normal. Attended ante-natal clinic, as case of doubtful pregnancy. Feelings of prolapse. Confirmed at second visit, but twins not diagnosed. Foetal heart not heard at any time. Hydramnios. Was referred to special clinic, but delivery took place before date fixed.	Premature twins born five days after last visit.	Both died within 12 days.

MIDWIVES: October, 1930—December, 1931.

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

The Borough of Swindon became the Supervising Authority for Midwives on 1st October, 1930. During that year fifteen midwives signified their intention of practising, seven of these being in private practice. Five of the seven held certificates granted by the Central Midwives Board, the other two were bona-fide.

In 1931, twenty-three notified intention to practise, of these eleven were in private practice and included the two bona-fide midwives mentioned above. One midwife visited Swindon solely in order to attend the confinement of her daughter, and another left the Borough to practise in the county of Wiltshire.

Thirty-six visits have been paid to midwives; three of these were special visits at the request of the Chief Medical Officer, the others being routine.

During the whole period under review, three midwives in private practice were suspended, each for three days, on account of their having come into contact with infection. Two were granted financial compensation, and the third midwife has not so far presented a claim.

The forms received from midwives for medical aid during the past fifteen months numbered 359. Of these, 117 were sent from district cases, 139 from the Maternity Home and 103 from midwives' private cases. The table below shows the various conditions for which medical help was sought.

Seven notices of artificial feeding were received, the reasons given being, one case of poor general health, one case of epilepsy, one case of unwillingness on the part of the mother to breast-feed, one case of scarcity of breast-milk, two cases in which the family doctor had suggested the change of feeding and one case in which the mother was returning to business.

There were nine notifications of infectious conditions and five of the laying-out of dead bodies; of these latter four were of infants and one of a mother.

Conditions for which Medical Help was sought by Midwives.

MOTHER.		CHILD.	
Prolonged first stage of labour	4	Prematurity	7
Prolonged second stage of labour	55	Stillborn	18
Ruptured perineum	106	Discharging eyes	44
Difficult labour	3	Cyanosis ..	2
Excessive loss	4	Dangerous feebleness	12
Retained placenta	6	Umbilical hernia	2
Uncertain or complicated presentation	24	Foetal distress	2
Rise of temperature	12	Phimosis	2
Cough	1	Skin trouble	1
Poor general condition ...	8	Asphyxia	2
Albuminuria	6	Oedema	1
Ante-partum haemorrhage	8	Convulsions	1
Post-partum haemorrhage	5	Abnormality	4
Inflamed breasts	2		
Heart attack	1		
Offensive lochia	1		
Miscarriage	4		
Threatened abortion	1		
Disproportion	8		
Induction	5		
Eclampsia	2		
Collapse	1		
Retention of urine	1		
Sub-involution of uterus...	1		
Hiccough and vomiting ...	1		
Uterine inertia	2		
Obstructed labour	1		
Patients' own request	5		

V. REDMAN KING,

Asst. Medical Officer of Health and
Inspector of Midwives.

PUERPERAL PYREXIA.

There were 29 notifications of puerperal fever and pyrexia during 1931, one of which was withdrawn, and 3 of which were not natives of Swindon. 21 cases were notified from the Maternity Home, 1 was notified from the Isolation Hospital and only 6 occurred in women delivered in their own homes. 2 of the cases from the Maternity Home, 2 from their own homes and 1 case already in were treated at the Isolation Hospital. 7 cases from the outside districts, not included in the above statistics, were treated in the Isolation Hospital. All of the Swindon cases recovered, but 2 of the outside cases died from septicaemia.

The incidence of puerperal pyrexia among the patients delivered in the Maternity Home appears to be high. This is due to an interpretation of the Puerperal Pyrexia Order different from that which is generally accepted. If the same basis for notification had been used in the Maternity Home as is used outside it, the number of cases of puerperal pyrexia occurring in the Home sinks from 21 to 6.

MATERNAL DEATHS.

There were 2 deaths in the town occurring as a result of, or in connection with, reproduction. One was a sudden death from embolism and the other was a death from haemorrhage which, at the end of the year, was under investigation. Beyond these two, no death of any woman in Swindon was connected, either immediately or remotely, with the reproductive process.

OPHTHALMIA NEONATORUM.

The number of cases of this disease notified in the Borough during 1931 was 4, which, with one exception, is the lowest number on record. Not one of these cases was of gonorrhoeal causation. 1 was treated throughout at the Maternity Home, 2 at the Maternity and Child Welfare Clinic and 1 was referred to Gorse Hill Hospital for treatment merely as a matter of convenience. In all cases the bacteriological examination revealed no organisms.

In Swindon every midwife is required to notify to the Medical Officer of Health every case of sore or discharging eyes, however slight, in an infant attended by her. 16 such cases were notified at the Maternity Home, of which 13 were cured while they were in the Home and 3 received treatment subsequently at the Maternity and Child Welfare Centre. 25 cases were notified by mid-

wives regarding infants born at their own homes. Of these, 15 were treated at the Child Welfare Centre and the others privately. There were no gonorrhoeal cases amongst this lot.

In addition to the above, 14 cases were seen at the Maternity and Child Welfare Centre which had not been notified either by a doctor or a midwife. None of these cases was gonorrhoeal.

We see, therefore, that during the year 1931 not a single case of gonorrhoeal ophthalmia occurred in Swindon. Such freedom has not occurred since attention was first paid to ophthalmia in 1921. The cases of ophthalmia which did occur are divided into two classes. The first, perhaps the commonest, is blocking of the punctum by a plug of matter which is formed before birth. It should be part of the routine treatment of new-born babies to see that the puncta are free and, if they are not, to free them, which can always be done by pressing upon the nasal sac. In a small number of children in which the punctum is obstructed, there is actual inflammation of the nasal duct, or possibly some congenital narrowing of the duct, or, again, some narrowing of the duct may develop as a result of inflammation. These cases may require prolonged treatment, generally intermittent, and may give rise to epiphora at a later age, though less than one per cent. of them require the use of the style or slitting of the canthus. The second class are reactions to various organisms, notably pneumococci; they are readily curable, and do not damage the eyes, but are of great epidemiological interest. The baby is born sterile of parasites, but immediately it is born it has to fight the biological battle of symbiosis with parasites. Probably every baby born is infected upon the first day of life with one or more of the species of pneumococcus. To this infection there may, or may not be, a clinical reaction. To some strains an attack of pneumonia similar to the croupous type in adults, except that consolidation of the lung does not occur, is not unusual, but more common reactions are a mild ophthalmia, or a mild infection of the umbilicus. It is proposed shortly, possibly within the present year, to show the bearing of the milder forms of ophthalmia in new-born babies upon the problem of communal immunity and outbreaks of pyrexia in maternity hospitals.

Every case, notified and unnotified, recovered completely.

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 Hospital.	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

* 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. 1931.

No. of Cases notified	4	No. of Cases	Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
Treated at Clinic	...	2	2	...	...	...
Treated at Gorse Hill Clinic	...	1	1	...	...	...
Treated at Maternity Hospital	...	1	1	...	...	...
Treated privately	...	...	...	...	...	...
TOTALS	...	4	4	...	...	...

PEMPHIGUS NEONATORUM.

Unfortunately, in England pemphigus neonatorum is not a notifiable disease, but where child welfare has been developed it is unlikely that any case of this infection will escape detection. The condition is rare, but the following incident is not only of interest but shows that the potential danger of pemphigus is not negligible.

In November, two cases of pemphigus were referred to the Medical Officer of Health. On inquiry it was found that five cases of pemphigus neonatorum existed in the town in babies born on the following dates:—25-10-31, 3-11-31, 11-11-31, 14-11-31 and 19-11-31. These were all in the practice of one midwife and were consecutive, i.e., every infant delivered by this midwife during that period developed pemphigus. Appropriate measures were taken immediately and no further cases occurred in the town. The five cases were similar. Two were severe. One of these was removed to the Isolation Hospital for treatment and a Wassermann was performed, and the other, though not sufficiently severe to require hospital treatment, was also submitted to a Wassermann test. The two Wassermans were negative, so it was not considered necessary to apply this test to the others. All the cases recovered.

Unfortunately, at the time of the occurrence, the Health Department was working at great pressure, so it was not possible to pursue a bacteriological investigation into the outbreak. All we have is that the contents of the blisters contained various cocci. We should guess from the observation of these cases that the disease may be one of the herpetic infections due to a virus and that it is not a variation of impetigo. The method in which the blisters develop suggests a general and not a local skin infection.

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

	1927	1928	1929	1930	1931
No. of first visits paid to mothers and children	815	874	884	975	910
No. of revisits	3674	3731	4765	4240	4250
No. of visits paid to expectant mothers ...	168	220	330	260	294
No. of visits paid to cases of deaths and still-births	87	89	110	109	95
No. of visits to cases of Tuberculosis ...	170	145	127	161	168
No. of visits paid to children aged 1—5 years	3421	4048	5570	5419	5497
	8335	9107	11786	11164	11214

Record of Work done at the Infant Welfare Centres during the Years 1927–1931 inclusive.

	1927	19 8	1929	1930	1931
No. of separate Infants who attended the Centre at—					
Eastcott Hill	1153	1242	1247	1278	1303
Gorse Hill	328	316	263	245	244
Rodbourne	273	260	261	233	253
Pinehurst*	...	...	66	139	145
TOTAL	1754	1818	1837	1895	1945
Number of Attendances—					
Eastcott Hill	6173	6281	6649	8232	8488
Gorse Hill	2473	2185	1917	2098	1774
Rodbourne	2057	2115	2282	2156	2258
Pinehurst	...	...	309	920	929
TOTAL	10703	10581	11157	13406	13449
Number of cases which received medical advice and treatment	787	942	939	1050	1049
Total Consultations	2111	2505	2636	3567	3445

*Opened 15th July, 1929.

Summary of Conditions Seen and Treated at the Infant Welfare Clinics during the Year 1931.

	Infants.	Toddlers.	Total.
Disease and Defects due to Ante-Natal Causes—			
Phimosis	127	2	129
Congenital defects of nervous system..	18	13	31
Congenital diseases of the blood ..	—	—	—
Other congenital deformities & defects	37	4	41
	182	19	201
Specific Infections—			
Congenital syphilis	7	1	8
Gonorrhœa other than O.N. ..	—	—	—
Ophthalmia neonatorum	46	—	46
Pemphigus neonatorum	5	—	5
Tuberculosis	2	2	4
Diphtheria, scarlet fever, measles, whooping cough	12	7	19
Pneumonia	16	1	17
Rheumatism	—	—	—
Nervous system	—	4	4
Various infections	71	41	112
	159	56	215
Deficiency States—			
Ill-feeding	269	14	283
Scurvy	7	—	7
Rickets	20	8	28
Anaphylaxis	7	11	18
Asthma	1	5	6
Teeth	29	52	81
Tonsils and Adenoids	1	—	1
Various	11	5	16
	345	95	440
Injuries	24	15	39
Miscellaneous	119	35	154
	829	220	1049
No. of Operations for the removal of Tonsils & Adenoids ..	2	2	4
No. of Bacteriological examinations	34	2	36
No. of Haematological examinations	13	5	18
No. of X-Rays examinations	20	7	27
No. of Mental Defectives	6	4	10
No. of Physical Defectives	2	3	5
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 1931.

	Infants	Toddlers	TOTAL.
Dental Clinic	25	308	333
Eye Clinic	5	2	7
V.D. Clinic	9	2	11
Orthopaedic Clinic	7	9	16
Throat, Nose and Ear Clinic	1	5	6
Electrical Clinic	9	1	10
Tuberculosis Clinic	1	—	1
Rheumatic Clinic	—	—	—
TOTAL	57	327	384

The fall in the number of cases of phimosis dealt with at the Clinic is due to this condition now being attended to at the Maternity Home.

Congenital syphilis is rare in Swindon. It will be seen from the table that eight cases were provisionally diagnosed at the Clinic and altogether eleven cases were referred to the V.D. Department for a Wassermann reaction. Out of these, nine were negative. The remarkable drop in the prevalence of both syphilis and gonorrhoea during 1931 is evidenced from all sources from which relative information is obtainable. The inference to be drawn is not quite clear. We must not forget the possibility of an epidemic beat.

The number of cases of scurvy, namely, seven, is unusually high. Infantile scurvy is generally considered to be a rare disease, and so it is in its final phase with spongy gums, periosteal haemorrhages, etc., but early cases of scurvy are quite common and not difficult to detect by those experienced in child welfare. As 60% of them are curable within twenty-four hours by a teaspoonful of lemon juice or swede juice and the others in a day or two by the continuance of this treatment, the early recognition of the condition is of great importance. The first signs are redness and tenderness of the gum margin and pain on pressing upon the tibiae. There is loss of weight and dryness of the skin, but neither vomiting nor diarrhoea.

In the above tables, squint is included amongst the congenital defects of the nervous system, to which category it rightly belongs.

THE MILK (MOTHERS AND CHILDREN) ORDER.

	1927	1928	1929	1930	1931
No. of applications granted ...	77	72	71	100	158
Total quantity of Milk issued (Galls) ...	1497	1186	1572	2195	3069
TOTAL COST (approx.) £	140	100	150	200	270

INFANTILE MORTALITY.

The deaths of all persons under the age of 20 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.

STILLBIRTHS.

35 stillbirths occurred in Swindon during 1931, of which 2 were not Borough cases, so 33 are accredited to Swindon, against 42 in 1930. 8 Borough cases occurred in the Maternity Home and of the extra-borough cases, one occurred in the Isolation Hospital and the other in Victoria Hospital.

Of the 33 Swindon cases, 17 were males and 16 females. All were legitimate. 15 were first pregnancies, 3 second, 1 third, 2 fourth, 5 fifth, 4 seventh, 2 eighth and 1 ninth. 15 were premature and 18 full-term.

The causes of stillbirth were, so far as can be ascertained, as follows:

FOETAL CAUSES :—

Monsters	...	...	...	...	...	2
Hydramnios	...	...	...	...	...	1

NATAL CAUSES :—

Breech presentation	...	...	...	...	4
Impacted shoulder	...	...	...	...	1

MATERNAL CAUSES :—

Ante-partum haemorrhage	...	...	...	5
Influenza	...	...	...	2
Albuminuria	...	...	...	2

In the remaining 16, there is no assignable cause of stillbirth. Of these 33 mothers, 16 had received ante-natal attention.

DEATHS BEFORE THE END OF THE FIRST DAY.

14 such deaths occurred, against 17 for last year. 1, whose dead body was found in the canal, was the child of unknown parents. The other 13 children were legitimate. Of the 14 children, 9 were males and 5 females. 4 were first pregnancies, 5 second pregnancies, 4 subsequent pregnancies and in the other there is no information. 2 died of intercranial injuries, 4 died from abnormal labour and in 7 there was no assignable cause. 6 of the mothers had received ante-natal supervision.

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

11 such deaths occurred, against 17 for last year. 8 were males and 3 females. 5 were first pregnancies, 5 second pregnancies and 1 was a subsequent pregnancy. 1 was illegitimate. 1 died of intercranial injuries, 2 were non-viable monsters and 8 died from no assignable cause. 5 of these mothers had received ante-natal supervision.

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

8 such deaths occurred, against 8 for last year. 2 were males and 6 females. 1 was illegitimate. 3 were first pregnancies and the others subsequent pregnancies. 7 were breastfed. Of these, 1 died of congenital deformity (3 previous children of the same mother had died of malformations), 2 were premature twins weighing respectively 3lb. 6oz. and 3lb. 7oz., 1 died of left-sided empyema, verified post-mortem, and in 3 there was no assignable cause of death. 1 child was artificially fed and in this case the cause of death is uncertain. 4 of these mothers had received ante-natal supervision.

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

18 such deaths occurred, against 19 for last year. 12 were males and 6 females. All were legitimate. 7 of the cases had not attended the Clinics and their previous histories are uncertain. 4 of these were artificially fed; of these, 3 died of convulsions, probably due to illfeeding, and 1 of bronchitis, away from the town. 3 were breastfed, 2 of whom died of acute pneumonia and in the other the cause of death is uncertain.

Of the 11 cases who attended the Clinic and whose histories are known to us, 5 were breastfed. Of these, 1 died from amyotonia congenita away from the town,* 1 from penetration

of the trachea by a safety pin (inquest), 1 from atresia of the vena cava (P.M.),* 1 from peritonitis secondary to umbilical deformity* and 1 from acute influenzal otitis media. Of the 7 who were artificially fed, 1 died from measles pneumonia (suffering from deficiency disease), 1 from spina bifida,* 1, an imbecile, from broncho pneumonia secondary to illfeeding,† 1 was asphyxiated by food, due to illfeeding, 1 died from congenital heart disease* and 1 from illfeeding.

DEATHS OF CHILDREN BETWEEN THE FIRST AND SECOND YEAR.

5 such deaths occurred, against 8 for last year. 3 were males and 2 females. All had attended the Clinic. 4 were entirely breastfed, 1 of whom died from influenzal pneumonia, 1 from tuberculous mesenteric glands (P.M.), 1 from diphtheria, and 1, an imbecile, from congenital syphilis.† 1 was partly breastfed and died from influenzal pneumonia.

DEATHS OF CHILDREN BETWEEN THE SECOND AND THE FIFTH YEAR.

There were 9 such deaths, against 11 for last year; 5 males and 4 females. 2 had not attended the Clinic, both of whom were breastfed. 1 of these died of diphtheria and 1 of ear disease following tonsillectomy.

Of the 7 who had attended the Clinic, 3 had been fully breastfed. Of these, 1 died of fractured skull, 1 from cerebro-spinal meningitis and 1 from measles. 3 had been partly breastfed, of whom 2 died of diphtheria (one was a child with an imperforate anus)* and 1 of congenital heart disease.* 1 child, never breastfed, died of tuberculous meningitis. This child suffered from congenital syphilis and was a physically defective.*

DEATHS OF CHILDREN BETWEEN THE FIFTH AND TENTH YEAR.

There were 8 such cases, against 19 for last year. 5 were males and 3 females. All of them had attended the Clinic. 4 died of diphtheria, 1 of empyema following pneumonia, 1 of pneumonia following tonsillectomy, 1 of sarcoma and 1 of influenzal pneumonia.

DEATHS OF CHILDREN BETWEEN THE TENTH AND THE SEVENTEENTH YEAR.

There were 11 such deaths, against 18 for last year; 5 males and 6 females. In 3 the previous history was not known. 2 died of influenza and 1 of brain tumour.

Of the 8 whose histories were known, 2 died of diphtheria, 2 were run over and died of fractured skull (both suffered from

ear disease), 1, a certified mentally defective, died of congenital heart disease,† I died from cerebral abscess secondary to ear disease, 1 from rheumatic heart disease and 1 from pulmonary tuberculosis.

DEATHS BETWEEN THE SEVENTEENTH AND THE TWENTIETH YEAR.

7 such deaths occurred, against 7 for last year. 2 were males and 5 females. 1 of these children was not known to us and died of pulmonary tuberculosis.

Of the 6 that were known to us, 2 (1 was a certified imbecile) died of pulmonary tuberculosis,† 1 died during operation for exophthalmic goitre, 1 of tuberculous meningitis, 1 of acute nephritis of doubtful causation and 1 died suddenly, certified as acute pneumonia, but there is strong reason to suspect that this was a death from cardiac failure due to diphtheria which had not been recognised clinically. This child was a physically defective.*

Cases marked thus * were physically, and † were mentally defectives.

Table Showing the Causes of Deaths of Children under 20 years of age in the Borough of Swindon during the Year 1931.

CAUSE.	0-1	1-2	2-5	5-10	10-17	17-20	Total
<i>Congenital Ante-natal and Natal Defects and Injuries :</i>							
Intercranial Injuries ...	3	—	—	—	—	—	3
Abnormal Labour (Asphyxia) ...	4	—	—	—	—	—	4
Non-viable Monsters ...	2	—	—	—	—	—	2
Congenital Defects ...	7	—	1	—	1	—	9
Prematurity ...	2	—	—	—	—	—	2
Congenital Syphilis ...	—	1	—	—	—	—	1
Unknown ...	21	—	—	—	—	—	21
<i>Post natal Diseases :</i>							
Measles ...	1	—	1	—	—	—	2
Influenza ...	1	2	—	1	2	—	6
Pneumonia ...	2	—	—	—	—	1	3
Empyema ...	1	—	—	1	—	—	2
Diphtheria ...	—	1	3	4	2	—	10
Rheumatic Infection & Sequelae	—	—	—	—	1	—	1
Pulmonary Tuberculosis ...	—	—	—	—	1	3	4
Tuberculous Meningitis ...	—	—	1	—	—	1	2
Other Tuberculous Diseases ...	—	1	—	—	—	—	1
Meningitis following Ear Disease	—	—	—	—	1	—	1
Cerebro-spinal Meningitis ...	—	—	1	—	—	—	1
Bronchitis ...	1	—	—	—	—	—	1
Cerebral Tumour ...	—	—	—	—	1	—	1
Sarcoma ...	—	—	—	1	—	—	1
Acute Nephritis ...	—	—	—	—	—	1	1
Illfeeding ...	5	—	—	—	—	—	5
Injuries ...	1	—	1	—	2	—	4
After Operation ...	—	—	1	1	—	1	3
TOTALS ...	51	5	9	8	11	7	91

NOTE.—The death of every child under the age of 20 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.

There is much food for thought in this death table. Though the numbers are fortunately small, it must be remembered that a similar table has been published in the annual reports of Swindon for the past eleven years and that the remarks which follow are generally applicable to past years as well as to 1931.

Of the 45 dead children for whom we possess reliable life histories, 9 were physically defective and 4 were mentally defective, i.e., in nearly one-third of these children who died, death may be considered as a relief rather than as a calamity. It has been pointed out by the Author on previous occasions that, perhaps fortunately, public health measures do not prevent fatality amongst defectives.

4 children died from accident. Of these, 2 were knocked over by vehicles and died of fracture of the skull. Both were subjects of ear disease. Some twenty years ago the Author called attention to the comparatively large number of children with chronic ear disease who died from accident, chiefly from being run over or from drowning. Since that date evidence has been accumulated relative to deaths from accident and the original statement substantiated. This matter is worth a thought.

2 children died from suffocation, one by grossly improper food, which stuck in his throat and killed him, and the other from penetration of the trachea by a safety pin which had been swallowed some weeks before death.

What diseases do kill healthy children? Five stand out prominently: Influenza, measles, whooping cough, diphtheria and tuberculosis. One excludes deaths from illfeeding, because an illfed child is not a healthy child. For the past twenty-five years the Author has collected the life histories, so far as they are known, of children who died of diphtheria and, wherever possible, has obtained the records of their school medical inspection. This inquiry shows very definitely that the vast majority of children who died from diphtheria were physically perfect, which is corroborative evidence of what is now universally admitted by epidemiologists, that the correct host for the corynebacterium of diphtheria is normal, healthy man, and that no means whatever in the way of sanitation or improvement of inorganic environment will make the smallest difference in the toll that man pays to this organism. That toll is constant at 7 persons per 1,000, i.e., over a number of years the deaths from diphtheria represent 7 per 1,000 of birth registrations. Diphtheria as a cause of death can be eliminated by biological means, but by none other. It may be surprising to find tuberculosis, particularly the acute tuberculosis of adolescence, placed among the diseases which strike down healthy children. It is probably

inaccurate to say that these children were healthy, but it must be admitted that by ordinary physical examinations we have no means of detecting the liability to the acute form of pulmonary tuberculosis. In many of those who die from this disease between the ages of 15 and 35, the liability to the disease has been suspected because of their known contact with cases of tuberculosis during their infancy, but it is rare for any sign or symptom of the disease to be detected until the onset of the fatal illness. Here again biological tests can help us to foresee the likelihood of acute pulmonary phthisis developing and possibly will enable us to avert it.

Infection and Epidemiology.

Infection and Epidemiology.

EPIDEMIOLOGY.

At the end of 1930, the epidemic situation at Swindon was as follows:—Diphtheria was epidemic locally with a tendency to become endemic generally; scarlet fever and other haemolytic streptococcal infections were absent; measles and whooping cough were scarce and sporadic, the former with no, and the latter with little, evidence of spreading; an outbreak of influenza was expected in February and as pneumococcal infections were somewhat high, the outlook was considered serious; infections due to parasites of the genus *bacterium* (*bacillus*) had been absent from the Borough for two years; meningococcus infection was suspected; the virus diseases, apart from chicken pox which was low, were absent.

Conditions were very quiet during the early part of January, but about the fifteenth of the month the health of the Borough began to deteriorate. On the 20th January we have the following note:—"There is a great deal of indefinite mild sickness, "believed to be influenza. As regards the forecast of the severity "of the epidemic of influenza which is approaching, the fatality of "pneumonia last November is of unfavourable augury, but the "somewhat extensive prevalence of indefinite disease at the "present time is favourable, for it probably means an increase in "the herd immunity of the town at an infinitesimal cost."

In February diphtheria declined. The epidemic of influenza came down in full force, but Swindon got off lightly in fatality. The disease was particularly active amongst infants. Influenzal pneumonia in infants (under threes) is generally benign, in contradistinction to the pneumonias of whooping cough and measles which are severe. In epidemic times it is common in new-born infants. Its epidemiological significance is important; briefly, high incidence of influenzal pneumonia in infants is connected with widespread prevalence of influenza with a low fatality rate. Influenza petered out in March. It is estimated that 8,000 persons had been attacked, of whom 21 died. The death rate for the Winter quarter was below average. Conditions at the end of March were quiet in all directions.

April was also a quiet month. The only point of importance was the occurrence of cases of chicken pox of a somewhat exceptional type, mainly affecting adults.

May and June were, on the whole, quiet. Diphtheria had settled down to be endemic in the Borough, with no special prevalence in any part. The few cases that did occur retained the high level of virulence which had been characteristic of the epidemic. In early June there occurred some cases of pneumonia

in young adult males, not of the June epidemic type, but of the virulent influenzal type, with a fatality of about 50 per cent. We have a note written in the middle of June "that the local position and the distribution of influenza throughout the world suggests that there will be an epidemic of that disease in November, 1931."

During the latter part of June, July and the beginning of August, the position was very quiet. During this period there were notified two cases of polio-myelitis, only one of which was in the acute stage, and one case of encephalitis lethargica which was not in an acute stage.

The health conditions remained quiet and uneventful until the middle of October, when diphtheria, which had been endemic throughout the year, began to assume epidemic prevalence in certain districts. It was, on the whole, rather less severe in type than it had been earlier in the year.

Measles started to become epidemic in the north of the Borough towards the end of November. This was rather unexpected, as the disease was not due to assume epidemic prevalence until June, 1932. The type was somewhat severe at first. Influenza also started to become epidemic in the middle of November. This was expected, but the type was exceedingly mild. The disease attacked the staff and patients of the Isolation Hospital and of the Maternity Home. In the former institution some 80 per cent. of the patients had influenza, which was characterized by a very brief high pyrexia, vomiting and abdominal pains. None of the patients was any the worse for it. At that time most of the patients in the Isolation Hospital were suffering from diphtheria, many of them being exceedingly ill, and the occurrence of vomiting amongst them naturally caused some alarm of cardiac paralysis, though the fact that the vomiting was accompanied by pyrexia was reassuring. The outbreak in the Isolation Hospital, and more still that in the Maternity Home, gave an opportunity of studying the behaviour of epidemic diseases in a closed community, which was found to be of considerable importance and value in unravelling the very complicated epidemic situation which arose in the Winter.

In the latter part of November and December diphtheria remained endemic throughout the Borough, with local epidemics of small size. The disease was of varying virulence, but, on the whole, was severe. Measles, which had started in the north of the Borough in the early part of November, became epidemic and spread south, though its spread was extremely slow. Up to the middle of December there had been between 400 and 500 cases and the expectation was that the total number for the

Borough would be 1,500. Though the first cases looked as though the visitation would be severe in type, it rapidly ameliorated and the actual damage done by the epidemic was trivial.

Influenza remained epidemic in the Borough throughout November and December. The number of persons attacked by the disease was very great, but, in general, the type was mild and, as is usual in Swindon in the Autumn, most of the cases were of the abdominal variety; but in December there occurred a crop of influenzal pneumonias of a type which the Author has not seen since the great pandemic of 1892-95.

The year closed with the epidemics of measles and influenza still in progress and diphtheria endemic throughout the Borough. A fatal case of cerebro-spinal meningitis occurred in December. Throughout the year there was no evidence of activity of the streptococcal diseases. There were a few odd cases of scarlet fever, all isolated and none of any importance. Amongst the cases of puerperal pyrexia there was not a single one due to haemolytic streptococci. For the third year in succession diseases caused by parasites of the genus *bacterium* were entirely absent. With the exception of one case of acute polio-myelitis, there was no disease of the non-herpetic virus group, and apart from a low incidence of chickenpox there was no case of the herpetic virus diseases.

DIPHTHERIA.

142 cases of diphtheria were notified during the year, all but one of which were admitted to the Isolation Hospital. The diagnosis of diphtheria was not confirmed in 6 cases and 4 cases were not true clinical diphtheria, but cases of sore throat occurring in persons temporarily harbouring the corynebacterium. There were 11 deaths, giving a fatality rate of 7.7% of total notifications, or 8.3% of genuine clinical cases.

The incidence of diphtheria in 1931 was higher than for any year for which we have records. 1931 was the central period of a widespread and somewhat severe epidemic of diphtheria which started in the Borough at the end of the Summer of 1930 and which continues into 1932. It had been pointed out in previous annual reports that such an epidemic as that which we are enduring at present was expected, owing to the low state of communal immunity to diphtheria locally, which in part is due to an unexplained phenomenon to which we call attention every year, that chronic carriers of the corynebacterium do not exist in Swindon.

The present epidemic is of some epidemiological interest because it is an example of an epidemic of an endemic infection occurring in a large community which is comparatively closed and comparatively virgin to the disease. It should, therefore, exhibit the phenomena expected from theoretical considerations. Since the opportunities of testing the validity of theoretical epidemiology occur but seldom, it is considered advisable to defer the consideration of this epidemic until it has ceased. It will suffice for the present to say that on the surface it appears that what is happening in Swindon in regard to diphtheria is precisely, and in all points, what was expected to happen.

SCARLET FEVER AND OTHER DISEASES CAUSED BY HAEMOLYTIC STREPTOCOCCI.

36 cases of scarlet fever were notified in the Borough during 1931, of which 33 were removed to Hospital. Of the 36 cases the diagnosis was confirmed in only 24. There were no deaths from the disease and no complications resulting from it.

There were 13 cases of erysipelas notified, 2 of which died, and 28 cases of puerperal pyrexia and fever, of which none died and none were due to haemolytic streptococci.

The incidence of sore throat was extremely low in children and, so far as we can estimate, in the adult population as well. This low activity had a somewhat surprising influence on the School Medical Service, which has much to do with the results and complications of sore throats. It is in accordance with modern epidemiology to consider scarlet fever not as a specific disease, but as a specialized reaction to certain varieties of haemolytic streptococci. During the years 1927-28-29 and the beginning of 1930 a very extensive outbreak of scarlet fever passed over Swindon and it was considered that this epidemic would confer temporarily a high grade of immunity upon the population, not only to scarlet fever itself, but to the more fatal diseases for which haemolytic streptococci are responsible. On the collapse of the epidemic in the middle of 1930 it was expected that for a period of about two years Swindon would be comparatively free not only from scarlet fever, but from the other streptococcal diseases, and the Author of this report would have been much surprised if 1931 had not given a low record for this class of infections.

PNEUMONIA.

There were 143 cases of pneumonia notified, against 105 for 1930, but about the average for recent years. There were 37

deaths from the disease, giving a fatality rate of 26%. 50 cases were removed to Hospital, of which 8 died, giving a death rate of 16%; 93 cases were treated at home, with 29 deaths, giving a fatality rate of 31%.

Pneumonia is a name common to a large number of diseases and complications of diseases of widely different epidemiological bearing. As a group, pneumonia stands fourth in numerical strength and first in importance of all human diseases, it causing more deaths than all other acute infections put together. There is no doubt that its toll could be much reduced if sufficient attention were paid to it, but it is a sheer waste of time to work out its epidemiology from the crude notifications. Something, however, can be done from the cases admitted to the Isolation Hospital, which can be separated into varieties.

THE PNEUMONIAS.

The statistics for Pneumonia for the past eleven 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
11 years.	1641	507	396	82	20.7	1245	425	34.1

THE INFECTIONS DUE TO PARASITES BELONGING TO THE GENUS *BACTERIUM*.

These are the abdominal infections, apart from appendicitis. For the third year in succession they were totally absent from Swindon.

THE VIRUS DISEASES.

Chicken pox is no longer notifiable in Swindon, but its incidence in 1931 was comparatively low. There was no small pox. There were 2 notifications of polio-myelitis, one of which was an old case, and one notification of encephalitis lethargica, also an old case. There was, however, a small crop of cases of glandular fever, one of which developed encephalitis.

There were 2 fulminating cases of cerebro-spinal meningitis, one in January and one in September, and a third fatal case in December which was only diagnosed post-mortem and was not notified.

MEASLES AND WHOOPING COUGH.

Measles was absent from the Borough until the end of November, 1931, when it started to become epidemic in the North Ward. It caused two deaths.

Whooping cough was very low in prevalence and did not become epidemic at any period during the year. There were no deaths from the disease.

TUBERCULOSIS.

There was an increase in the notifications of respiratory tuberculosis as compared with 1930, from 41 to 52 and an increase in the number of deaths from 37 to 40, but there was a decrease in the non-pulmonary forms, in notifications from 45 to 28 and in deaths from 15 to 6. The death rate from all forms of tuberculosis was 730 per 1,000,000 against the standard death rate of 1,000 per 1,000,000, which represents the average toll of tuberculosis in England and Wales for the last five years. The mortality rate for tuberculosis in Swindon in 1931 was the lowest recorded, except for 1929 and 1926. 7 of the cases were notified at or immediately before death. This number includes 3 cases of tuberculous meningitis, which normally can only be notified when moribund, and 4 cases of pulmonary tuberculosis, in 2 of

which the diagnosis is open to question. 6 cases which died outside the Borough were never notified in Swindon.

An unfavourable feature in the return is the increase of cases of pulmonary tuberculosis between the ages of 15 and 25. There were 21 such cases notified, with 14 deaths. These figures are very unfavourable. As a set off to these, between the ages of 0—15 there were only 17 notifications, all non-pulmonary, with but 2 deaths. Of these 17 cases, 12 were glands, 4 bones and joints and 1 meninges. The low frequency of child tuberculosis in Swindon may have some relationship with the local milk supply, which is above the average in freedom from tubercle. Like all tuberculosis statistics of recent years, those of Swindon fix attention on the problem of adolescent pulmonary tuberculosis. This problem awaits solution.

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 1931.

CANCER.

There were 98 deaths from cancer in 1931, against 97 in 1930 and 91 in 1929. The cancer rate is, therefore, becoming stabilised at 156 deaths per annum per 100,000 persons. The rate, unfortunately, is a very high one, the general rate for England and Wales being 143. It must, however, be remembered that 156 is the crude rate and we do not know how it would work out on standardisation.

DIABETES

There were 14 deaths from diabetes during the year, also giving a high rate. It must, however, be remembered that as special facilities are available for the treatment of diabetes under Dr. Berry at Victoria Hospital, there is a tendency for diabetics to drift into the town and to remain there sufficiently long for their deaths, when they occur, to be attributed to the town, so the apparent high rate of diabetes in Swindon is probably not genuine.

which the diagnosis is open to question. It seems well to doubt whether the diagnosis was correctly made in this case.

An interesting feature in the case is the history of a long and severe attack of rheumatism, which was followed by a severe attack of neuritis. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism.

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DISCUSSION

The case is of interest because of the long history of rheumatism, which was followed by a severe attack of neuritis. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism.

CONCLUSION

The case is of interest because of the long history of rheumatism, which was followed by a severe attack of neuritis. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism. The patient was very much distressed by these attacks, and it is probable that the neuritis was a result of the rheumatism.

ISOLATION HOSPITAL, GORSE HILL.

ANNUAL REPORT

From 1st April, 1931, to 31st March, 1932.

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.

Two important events occurred during the year: First, the opening of the new administration block and, secondly, the consideration of the Hospital in connection with County administration under the 1929 Local Government Act. Some years before the War it was recognised that the accommodation for the staff was inadequate and poor in quality and plans were drawn out on behalf of the late Hospital Board for new administrative buildings. The scheme never materialised, owing first to the War and then to the feeling that the days of the Board were numbered. When the Hospital was taken over by the Corporation under the Order of 1928, the Town Council set about at once to remedy the structural defects of the institution. Foremost amongst these, and most formidable in cost, was the building of the administration block and nurses' home. The completion of this building enabled us to house the whole staff in one building, to pull down the night nurses' old quarters and to shift the domestic staff from the building which is known as the "Tin Tabernacle." This last building is retained, for it may become very useful in the development of the Hospital, as structurally it is in good repair. The new block has also enabled us to house a staff sufficient for the purposes of the Hospital and for its growing activities. In the past, serious trouble had arisen from the fact that the staff accommodation was inadequate.

The 1929 Local Government Act threw upon the County Council the duty of ensuring adequate isolation accommodation in the County. Though the Swindon Hospital is the property of Swindon Borough, the County Council had considerable indirect jurisdiction over it, and the position of the Hospital and the work it undertakes, is fitted to undertake and which it is obviously desirable in the interests of the population that it should undertake, requires that the County Council should be intimately interested in it. Exactly what scheme the County Council will eventually decide upon was unknown at the end of the year, but whatever it may eventually be, it will be essential for the Swindon Isolation Hospital to give active help.

The number of new admissions during the year 1st April, 1931, to the 31st March, 1932, was 321, against 330 and 419 for the two preceding years. The admissions for the present year are about average for the years since 1923.

On the 1st April, 1931, 26 patients remained under treatment and 321 new cases were admitted, so that there were 347 cases under treatment during the year. Of these:—

286 were discharged cured.

1 was discharged at the request of the parents.

31 died, and

29 remained in Hospital on 31-3-32.

The new admissions were received under the following notifications:—

Scarlet Fever	...	...	...	...	48
Diphtheria	...	...	...	...	175
Pneumonia	...	...	...	...	68
Puerperal Pyrexia	...	...	...	...	15
Babies with Mothers	...	...	...	...	7
Erysipelas	...	...	...	...	4
Polio-Myelitis	...	...	...	...	1
Measles	...	...	...	...	2
Cerebro-spinal Meningitis	...	...	...	...	1

The 347 cases arranged according to their final diagnoses were:—

Scarlet Fever	...	...	...	...	46
Diphtheria	...	...	...	...	178
Pneumonia	...	...	...	...	67
Puerperal Conditions	...	...	...	...	15
Babies with Mothers	...	...	...	...	8
Tonsillitis	...	...	...	...	9
Cerebro-spinal Meningitis	...	...	...	...	1
Polio-Myelitis	...	...	...	...	1
Diphtheria and Scarlet Fever	...	...	...	...	1
Bronchitis	...	...	...	...	1
Septic Rash	...	...	...	...	1
Drug Rash	...	...	...	...	1
Pityriasis Rubra	...	...	...	...	1
Erysipelas	...	...	...	...	4
Rubella	...	...	...	...	1
Urticaria	...	...	...	...	1
Measles	...	...	...	...	3
Pleurisy	...	...	...	...	1
Rickets	...	...	...	...	1
Chickenpox	...	...	...	...	1
Post-pharyngeal Abscess	...	...	...	...	1
No obvious disease	...	...	...	...	4

The 321 cases admitted during the year were chargeable to the following local authorities:—

Public Health Acts:

Swindon Borough	...	...	...	...	236
Highworth Rural District	...	...	...	...	38
Cricklade and Wootton Bassett Rural District	...	...	...	...	40

Maternity and Child Welfare Act (Puerperal Cases):

Wilts County Council	...	...	...	...	7
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DIPHTHERIA.

There were 178 cases of pure diphtheria, one other case admitted with concurrent scarlet fever and one scarlet fever case developed diphtheria in hospital. So, altogether, 180 cases of diphtheria were treated during the year. 13 were bacteriological cases without the specific clinical reaction. These not being truly diphtheria leave the number of genuine cases at 167. The type generally was severe. 11 died: 4 admitted moribund, 2 haemorrhagic cases, 4 from heart failure, one of which was a croup requiring tracheotomy, and 1 died from penetration of the trachea with a safety pin (the last did not die from diphtheria). The number of deaths due to the disease is, therefore, 10, a fatality rate of 6%.

The complications were numerous and severe.

Croup	...	...	...	9	(one only required operation).
Cardiac failure	...	...	...	23	
Pharyngeal palsy	...	...	...	24	
Ocular palsy	...	...	...	8	
Laryngeal palsy	...	...	...	1	
General palsy	...	...	...	3	
Otorrhoea	...	...	...	4,	plus 1 which developed after leaving Hospital.
Albuminuria	...	...	...	3	
Cervical abscess	...	...	...	3	
Herpes	...	...	...	2	
Relapse	...	...	...	2	
Antitoxin rash	...	...	...	22	

Two developed chickenpox in Hospital and one after discharge.

THE PNEUMONIAS.

The 67 cases of pneumonia under treatment during the year were as follows:—

Variety.	Cases.	Re-covered	Died.
Croupous type	10	10	—
Influenzal types	23	16	7
June epidemic type	3	3	—
Post operative pneumonia	1	—	1
Syphilitic pneumonia	1	—	1
Measles pneumonia	11	10	1
Whooping cough pneumonia	6	6	—
Broncho Pneumonia of uncertain type	9	8	1
Broncho Pneumonia, Rickets type	3	3	—
TOTALS	67	56	11

The mortality from the pneumonias treated in the Isolation Hospital always compares very favourably with the mortality of the cases treated at home, the statistics for the past eleven years showing a mortality in hospital of 20.7% and of cases treated at home of 34.1%. Some years ago we made a critical inquiry into the meaning of this to find out, if possible, how far this apparent saving of life was statistically significant. It would appear from that inquiry that a considerable amount was genuine and it is proposed, when the numbers which have been treated in hospital have reached 500, to re-open the matter and to evaluate the statistical evidence.

In the course of a few months the Author will produce evidence to show that in many forms of pneumonia in adults, a differential diagnosis is possible by means of blood examination and that in most of the forms that can be differentiated a prognosis can be made with certainty from the examination of blood films. By examination of blood films the Author avers that he can separate cases of several forms of pneumonia into those which will recover without treatment and those that will not and he has used this not only to form a prognosis, but as a basis upon which to evaluate methods of treatment which seem promising.

Whether the Author's conclusions are acceptable or not, the following will be accepted tentatively :—

(1) That no form of treatment is indicated in cases in which the blood is favourable. By treatment, of course, specific treatment is to be understood. All cases of pneumonia require good hygienic management and the finest nursing that is obtainable, but given these, those cases in which the blood shows a favourable reaction will—we might say must—recover.

(2) Those cases in which the blood is unfavourable will not recover; in fact they must die unless the disease is attacked by a specific agent.

(3) If in such cases, and in such cases only, a specific agent is tried and none recover under it, the agent may be discarded as a remedy.

(4) If any cases, however few, survive after the exhibition of an agent, it may be presumed that that agent is valuable and its value can be roughly gauged by the proportion of recoveries.

During the past twelve years many agents in the treatment of pneumonia have been explored and all abandoned as worthless, except the following three :—

(1) Puncture.

(2) The old Type 1 antitoxin, given in large doses intravenously late in the disease; and

(3) Felton's units given more or less in accordance with Felton's instructions.

We shall not pursue the matter here, further than to say that by these three methods lives have been saved which would otherwise have been lost and to remark that the treatment by puncture, which was originally introduced in Italy, is most serviceable in dealing with the secondary pneumonias of children, particularly those which follow measles and whooping cough.

PUERPERAL CASES.

10 cases of notified puerperal infections, 5 cases of abortion, not notified, one woman with pneumonia who was delivered during the height of the disease of a dead baby, and 8 babies admitted with their mothers make up the maternity section of the work of the Isolation Hospital. One of the babies died from purpura,

possibly due to influenza, from which disease the mother was suffering at the time, and two of the mothers died. One of these was admitted moribund from septicaemia and the other in a late stage of the same disease. In the latter, streptococci in large numbers were visible in blood films, a phenomenon of great rarity.

In the reconstruction of the maternity scheme of Swindon, a difficulty came to light which was awkward of solution. Cases of incomplete or inevitable abortion which had not so far become obviously septic, but in which sepsis was probable, could not be admitted either into the Maternity Home, or into the Isolation Hospital. It is true that the general hospital would accept such cases, but accommodation there was uncertain and the scheme aimed at the total abolition of all administrative uncertainty. It was therefore agreed by the Isolation Hospital Committee, with the good will of the Wilts County Council and the acquiescence of the Ministry, to make arrangements for such cases to be accepted into the Isolation Hospital. Five were treated there to a successful issue in 1931. None developed pyrexia.

SCARLET FEVER.

46 cases of scarlet fever were treated during 1931, the lowest number ever dealt with in any year since the establishment of the hospital. The only case calling for comment was that of a boy admitted with mild scarlet fever, who developed fatal cerebro-spinal meningitis during convalescence.

RETURN CASES.

During the year there was an epidemic of diphtheria in the Cricklade and Wootton Bassett Rural District. The cases were admitted for treatment into the Isolation Hospital and by most extraordinary good fortune not a single one of them died, though many were severe. Two or three of these cases appeared to be return cases in the orthodox meaning of the term, but being outside the district of the Medical Officer of Swindon it was not possible to investigate them directly. The conditions ruling in the epidemic area at the time were such that it is very improbable if the bearings of the alleged return cases could be solved. Apart from these, there were but two return cases, both in the Borough of Swindon. The first, a case of diphtheria discharged on 22-12-31, apparently gave rise to the disease in her brother, who was admitted on 31-12-31. After investigation it was decided that this case should be accepted, i.e., that the discharged case did, in fact, infect the second. The second case was that of a boy who was admitted to hospital with pneumonia and discharged on

22-2-32. Two of his sisters were admitted to hospital, one on 26-2-32 and the other on 27-2-32. One of these cases had obvious scarlet fever, the other had no obvious disease. These cases were not accepted, i.e., it was considered that the return of the first case had no influence in producing disease in his two sisters.

CROSS INFECTION.

One case admitted as scarlet fever developed diphtheria in hospital. Whether she was infected in hospital or before admission could not be settled; either was possible.

Towards the end of the year a case was admitted with croup under the diagnosis of diphtheria. The Matron, noticing some spots on this child, did not admit him into the diphtheria ward, but, as he was croupy, admitted him into the kitchen in the diphtheria block. The boy was seen by the Medical Officer about three hours after admission, diagnosed as chickenpox without diphtheria and promptly removed. While the boy was in the diphtheria block, a convalescent diphtheria child passed within six feet of him. Seventeen days later that child developed chickenpox. That case gave rise to a third case seventeen days later and to a fourth case who developed the disease after discharge from hospital. The cases were of no clinical importance, but are of some epidemiological interest, because the first case that was infected could not have come into contact with the boy who infected him and could actually not have come nearer than three feet from any part of his person.

Towards the end of the Autumn influenza became epidemic in the hospital, affecting both patients and staff. Among the patients, mainly convalescent diphtherias, the reaction consisted of one day's diarrhoea, generally with some vomiting, and a pyrexia lasting from twenty-four to forty-eight hours. None of the patients was any the worse for it.

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EPILOGUE.

Epilogue.

EPILOGUE.

Modern public health practice consists in the application of abstruse science to obtuse man and in order to pursue it successfully, it is necessary to have very clear conceptions of its biological principles and a somewhat intimate knowledge of the vagaries of the species. Only in comparatively recent years has biology been studied as a science with practical possibilities, for though from prehistoric times the forms and functions of animals and plants have excited the curiosity of mankind, the inscrutable nature of life and the difficulty which human intelligence encounters in studying a subject in which it itself is personally concerned, inhibited any attempt to explain the observed phenomena. The obvious fact that man is an animal, identical in all his prime functions with every other animal and differing only in detail from those nearest to him in structure and evolution, was, indeed, recognised as soon as man emerged from barbarism, but the peculiar nature of his intelligence caused him to blind himself to the obvious and it was not until man's position in the scale of organic evolution was finally established that the study of biology became a recognised department of culture. The science suffers from its youth without benefiting from it. Most new sciences, or new departments of science, such as the study of the Hertzian waves, or of the heat engine, have a clean start; everything has to be found out, but the pursuit of knowledge is untrammelled by tradition and false doctrine. Biology had no such advantage. The first work of really scientific biology, Darwin's "*Origin of Species*," which sought to establish a conception of the organic universe, met with an opposition which was totally irrelevant to the matter at issue, but was pursued with that ferocity which man always brings to bear against arguments that he does not understand. The great struggle of the middle of the nineteenth century is, except to the older members of the community, now merely a tradition, but the same kind of sophistry which attempted to crush the beginning of biology continues to the present day to plague its continuance and the biologist, alone of those who pursue the methods of science, has to confront the active opposition of fools. Nobody interferes with the engineer, or the physicist in his pursuit of knowledge, but the biologist is hampered and annoyed at every turn and had it not been that those who make a study of organic life have been conspicuous for their earnestness and erudition, such progress as we have made would have been delayed to a later period in human history.

The same opposition which hinders progress in biological theory hinders also the application of the fruits of the knowledge gained, so that the attempt to apply biological principles to man halts along slowly and those who pursue it find their greatest

enemy in those whom they seek to benefit.

In an address given to the Conference of Sanitary Inspectors last year, Sir Leonard Hill gave a sketch of what the health conditions of man could be if he made full use of the knowledge he possesses at present. This speech began with a significant sentence. In his address of the previous year he had dilated upon the evils of people destroying their health by patent and other nostrums, so he was unable to publish that address because it would interfere with the nefarious trade. There is so much more money to be made out of disease than out of health, that it is unlikely that the Utopia visualised by Sir Leonard will come to pass until the bulk of mankind develops either intelligence, education, or morality and there is precious little sign at the present day of advance in any one of these functions. Still, there it is as a practical proposition. Man can be healthy if he wants to be, but he must make an effort to attain health and that effort involves some self-denial, a surrender of his prejudices and a certain amount of altruism to desire the same standard of health for his neighbours as he would enjoy himself.

In order that man may be healthy, four things are necessary: First, that he should exercise his reproductive functions with the object of improving the human stock; secondly, that he should be placed in an environment favourable for the exercise of his functions; thirdly, that he should guard his nutrition and, fourthly, that he should establish a benign symbiosis with other organisms that are normally parasitic upon him. As regards the first, man has not only done nothing valuable, but has used all his powers to act dysgenically upon future generations. There is not a single thing we have done, not a law we have passed, not a custom we have retained, which has not done its worst to prevent the improvement of the generations of man. For this we, of course, suffer as we deserve to suffer. As regards environment we have undoubtedly done well. The improvement in human environment during the past century has been prodigious and for this we have reaped a just reward. We have not done everything that could be done, but in connection with this a word of warning is necessary. Man must have a favourable environment, but his necessities are far less than his desires and he soon reaches a level of favourable environment which produces the maximum benefit; improvements beyond this will not be followed by any corresponding advantage. As regards nutrition, we have also done well, though nothing like so well as we could do. There is now a small but growing percentage of the coming generation which is soundly fed, though, unfortunately, the correct dieting of civilised man is so much hampered by prejudice, tradition and business considerations, and, above all, by total failure of our educational system to teach the coming generations the elementary principles of how to live, that the majority are crippled almost

from the start by faulty feeding. Still, in this direction we are making progress and naturally are benefiting from it. As regards the fourth, the management of symbiosis, this is far more technical. Its principles can scarcely be understood by anybody who is not trained in biology and, as its benefits can only be demonstrated negatively, it is difficult to bring its lesson home. Some progress is being made in this direction also, but it will not be rapid until everybody realises that parasitic reaction, which roughly means the same thing as so-called acute disease, is not in any way dependent upon the general health or physiology of the host, which, in our case, is man.

In the course of evolution of organic life, certain species of animals and plants have developed parasitic functions and depend for their existence upon the life of other, generally more highly organised, beings. The completely evolved parasite has developed to live upon the completely evolved host and the host has evolved to harbour the parasite. The majority of organisms which produce disease in man are strict human parasites, i.e., they cannot exist apart from man and their normal habitat is the man in perfect health, generally during the period of life in which he is growing. It is perfectly obvious that nothing which improves man's well-being is going to rid him of troublesome parasites which are quite as much interested in his well-being as he is himself. Unfortunately, many of these parasites damage the host and frequently destroy him, but it is no necessary part of parasitism to damage the host and it is probable that all parasites (as we have knowledge that it is so with some) can so modify the host that he can harbour them without suffering from it. To keep man free from parasitic infection is only possible when dealing with parasites which are locally distributed, or whose method of spread, or life cycle possesses factors which can be suppressed. The parasites which cause our more common diseases are spread direct from one host to another and are universally distributed wherever man is to be found. Man can escape damage from those parasites wherewith his co-evolution has not advanced to benign symbiosis only by getting ahead of the schedule and doing quickly by artifice what nature is doing slowly by evolution. Biological research has enabled us to do this with some infections and further research will undoubtedly enable us to do the same with others. But nothing except experimental research can teach us anything.

If man uses his wits he can overcome disease, but wits are scarce and difficult to activate.

“ Sure, He that made us with such large discourse,
 “ Looking before and after, gave us not
 “ That capability and god-like reason
 “ To fust in us unused.”

But Hamlet overestimates the supply of god-like reason and he had no eye to the "main chance." At present we allow ourselves to drift into disease, vainly hoping to find some elixir which will reverse the penalty of life-long error. You all know what we get from this—and we are never going to get anything better. The hope that we shall be able to cure disease in the strict sense of the word "cure" is biologically ridiculous.

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APPENDIX I.

INCIDENCE OF DIPHTHERIA.

I.

In the text it is stated that the incidence of diphtheria in temperate zones is 10 per cent. of persons born and that the mortality is 7 per 1,000. This means that of every 1,000 persons born, 100 may expect to suffer an attack of clinical diphtheria and 7 may expect to die from it. The vast amount of epidemiological research that has been done of recent years suggests that these rates are constant and that the incidence of diphtheria over long periods of time does not vary. The corollary to this is that no means which we have adopted until recently for stemming diphtheria have been of the least avail in influencing its incidence. There is no question that local preventive measures, other than immunization, may suppress or limit the disease in localized communities, but amongst a population that is free to move about, the most that can be done is to delay the age of attack. There is abundant evidence that the measures we have adopted have altered the age incidence of diphtheria, so that the brunt now falls upon the 5—15 age period, whereas formerly it fell on the 1—5 period. But as the fatality of diphtheria is not influenced by age, little has been gained by this shift in age-incidence.

As regards mortality, we should expect that the introduction of anti-toxin, the curative power of which is unquestionable, would have materially reduced the fatality of the disease. There is evidence that it has done so, but the statement that the mortality is still 7 per 1,000 of all born tells us what is a general principle of epidemiology, that the treatment of disease, however satisfactory it may be, has little influence upon the gross mortality. The figure of 7 per 1,000 applies to recent years, during which the use of anti-toxin has been universal. What the mortality of diphtheria was before the introduction of anti-toxin cannot be estimated with certainty. In Swindon, during the past 22 years, there have been 22,625 births. The number of cases of diphtheria notified during the same period was 1,602 and the number of deaths 112. The figures for the early part of this period are only doubtfully trustworthy, but for the past thirteen years, during which time the figures are as accurate as it is possible to obtain, there have been 12,732 births, 839 notifications of diphtheria and 73 deaths, against the expected numbers of 1,273 notifications and 84 deaths. But during the last two years, with 1907 births, there have been 254 notifications of diphtheria with 19 deaths, against an expectation of 190 cases with a little under 14 deaths, and there is every probability that when the statistics for 1932 are available it will be found that the actual numbers for the whole 14 year period will correspond with the theoretical expectation.

II.

It has been said in the text that diphtheria tends to attack children who are healthy and to kill those who, with the exception of their failure to establish a benign symbiosis with corynebacterium, are above the average in health and physical condition. During the past 25 years a record has been kept of all deaths from diphtheria which have come under the Author's observation and in which he possesses the previous histories of the children, including the results of medical inspection. There were 55 cases. These 55 during life exhibited the following defects:—

Tonsils slightly enlarged	...	...	...	...	4
Tonsils moderately enlarged	...	...	...	...	4
Tonsils requiring removal	...	...	...	...	1
Tonsils removed	...	...	...	...	1
Dental caries	...	...	...	...	6
Dental abscess	...	...	...	...	1
Nutrition poor	...	...	...	...	2
Enlarged cervical glands	...	...	...	...	4
Squint	...	...	...	...	1
Blepharitis	...	...	...	...	1
Corneal nebula	...	...	...	...	1
Loss of eye from cellulitis	...	...	...	...	1
Myopia	...	...	...	...	1
Torticollis	...	...	...	...	1
Mentally defective	...	...	...	...	1
Bronchitis	...	...	...	...	1
" Status lymphaticus "	...	...	...	...	1

RELATIONSHIP OF DEATHS CAUSED BY INJURY BY MOTOR CARS, OR DROWNING, AND PHYSICAL DEFECTS.

We have notes of 7 children drowned and it is of interest to find that none of them was normal. Their defects were as follows:—

1. Squint.
2. Myopia.
3. Myopia. Left arm had been amputated.
4. Organic heart disease.
5. Fits. ? Epilepsy.
6. Adenoids.
7. Pigeon breasted.

13 children have been killed by motor accident. Their defects were as follows:—

Chronic ear disease and enlarged thyroid	...	1
Deaf from adenoids, removed.	Hypermetropia	1
Hearing defective. Enlarged glands	...	1
Chronic ear disease. Deaf from adenoids	...	1
Adenoids	... ..	1
Cardiac murmur of doubtful significance	...	1
With no known defect	... ..	7

One does not argue from small numbers such as these, but the findings do open up questions of considerable importance.

APPENDIX II.

DIPHTHERIA IMMUNIZATION.

(By J. Stevenson Logan, Deputy Medical Officer of Health).

This work has been carried on systematically throughout the year, but in the absence of any sustained propaganda one can only expect comparatively few requests for immunization. By the end of 1931 the Schick testing of all patients who had completed a course of immunization injections prior to June 30th, 1931, had been carried out. 27 were re-Schicked and in 24 cases the reaction was negative, in 1 frankly positive and in 2 doubtfully positive. Regarding these latter as positive, 89 per cent. of the patients were apparently successfully immunized as demonstrated by the Schick reaction.

SUMMARY.

No. of primary Schick tests	...	...	...	19
No. of re-Schick tests	...	...	...	27
No. of negative Schick reactions after course	...	...	...	24
No. of positive Schick reactions after course	...	...	...	3
No. of patients completing course	...	...	...	13
No. in course of immunization	..	...	...	2
Defaulters	...	...	...	2
No. of injections given	...	...	...	44

J. STEVENSON LOGAN,

Deputy Medical Officer of Health.

APPENDIX III.

**DETAILS OF BACTERIOLOGICAL EXAMINATION OF
SAMPLES OF ALL BOTTLED MILKS SOLD IN THE
BOROUGH DURING THE MONTHS OF JULY AND
AUGUST, 1931.**

Number	Acid Fast Bacilli	B. Coli			Stormy clot reaction	Organisms in $\frac{1}{1000}$ c.c.
		$\frac{1}{10}$ c.c.	$\frac{1}{100}$ c.c.	$\frac{1}{1000}$ c.c.		
1	—	+	—	—	+	77
2	—	—	—	—	+	4
3	—	+	+	+	—	Uncountable
4	—	+	—	—	—	160
5	—	+	—	—	—	57
6	—	+	+	+	—	42
7	—	+	+	—	—	194
8	—	+	+	—	—	137
9	—	+	+	+	+	90
10	—	+	+	+	+	480
*11	+	+	+	—	—	11
12	—	+	+	—	—	479
13	—	—	—	—	+	90
14	—	—	—	—	—	22
15	—	+	+	—	+	8
16	—	+	+	+	+	1104
17	—	+	—	—	+	310
18	—	+	+	—	—	192
19	—	+	—	—	—	17
20	—	+	+	—	—	560
21	—	+	+	—	—	10
22	—	+	+	+	—	14
23	—	+	+	—	—	43
24	—	+	—	+	—	250
25	—	+	+	+	—	45
26	—	+	+	—	—	138
27	—	+	+	+	—	668
28	—	+	—	—	—	53
29	—	+	—	—	—	128
30	—	+	+	+	—	924
31	—	+	+	—	—	Uncountable
32	—	+	+	+	—	156
33	—	+	+	+	—	82
34	—	+	+	+	—	117
35	—	—	—	—	—	Uncountable
36	—	+	+	+	—	343
37	—	+	+	+	—	Uncountable
38	—	+	+	+	+	29
39	—	+	—	+	+	632
40	—	+	—	+	—	792
41	—	+	+	+	—	876
42	—	+	—	—	+	Not counted
43	—	+	—	+	+	do.
44	—	+	+	+	—	do.
45	—	+	—	—	—	do.
46	—	+	+	+	+	do.

*Subsequent examination by the County Council officers revealed no tubercle bacilli in milk from this source, nor any clinical evidence of tuberculosis in the cows.

All the samples of pasteurized milk were satisfactory and one was particularly good.

J. STEVENSON LOGAN,
Deputy Medical Officer of Health.

APPENDIX IV.

MATERNITY HOME AND CENTRE.

REGULATIONS.

The Maternity Centre at Swindon includes the Home for delivery, the Extern Midwifery Service run in connection with this Home, and an Ante-natal Department for the supervision of maternity. The aim of this department is to make maternity safe, to reduce, so far as our knowledge allows, all diseases and damage that can result from reproduction and to ensure, so far as lies in our power, that the familial life of the community shall be happy and free from anxiety. The scheme is comprehensive and it is open in all its functions to every woman of Swindon and the neighbouring parts of the County during their reproductive life. Reproduction, being a physiological process, must be considered primarily from its physiological aspect. It is, therefore, desirable that the medical aspect should be kept as much as possible in the background, always and instantly available when required, but not forming the basis of the system. The scheme will be officered entirely by those who have had medical or nursing training, but these will act mainly as physiologists to study the normal processes of reproduction and to advise such methods of management as the various stages of this function require.

ANTE-NATAL DEPARTMENT.

The Ante-natal Department shall consist of a series of clinics where any woman in the reproductive period can obtain advice upon her reproductive functions. Though retaining the name "Ante-natal Clinic" provisionally, it would be advisable for this name to become obsolete and some other to be substituted which will more closely explain its function, for ante-natal supervision is but one of these. Post-natal supervision will be given at these Clinics.

The Clinics are of three kinds: (1) those held by the Matron of the Maternity Centre and her nursing staff; (2) those held by the Assistant Medical Officer of Health and Inspector of Midwives, and (3) those held by the Consulting Obstetrician. The functions of the last are purely medical, but those of the others are not. The Matron will hold her Clinics on Thursdays and Saturdays between 2 and 4.30 p.m.; the Assistant Medical Officer of Health will hold her Clinics on Tuesdays and Fridays between 2 and 4.30 p.m., and the Consulting Obstetrician will hold his Clinics on the second and fourth Wednesdays in each month from

2.30 to 4.0 p.m. Any woman may attend either the Matron's or the Assistant Medical Officer's Clinics, but attendance at the Consulting Obstetrician's Clinic must be arranged beforehand through the Assistant Medical Officer's Clinic, for the Consulting Obstetrician's Clinic is limited to the consideration of abnormalities. The Clinics may be attended by any expectant mother, or by any mother who has been recently delivered. It is proposed that Memo. 145 M.C.W. of the Ministry of Health shall be followed strictly, unless and until experience suggests any variation. It must be admitted that, up to the present, ante-natal supervision has not produced the results which might be expected from it, so that it is clear that if it is to be successful it must develop and change with increasing knowledge and experience. For the time being the Matron's and Assistant Medical Officer's Clinics shall be held at Milton Road, which is readily accessible by all the women of Swindon—a matter of importance, as the pregnant woman cannot be expected to travel far. In the course of time this Clinic will be split up.

It is proposed to use the Maternity Home for the special Consultant's Clinic. The Clinics are not established for medical or surgical treatment, but for physiological supervision. Ante-natal cases requiring treatment can be accommodated in the Maternity Home. Post-natal cases requiring treatment must be referred to their private doctors, or to some suitable institution. It must be understood in this connection that the word "treatment" means some procedure for the relief of an abnormal condition which requires skill in its administration.

For each patient attending the Ante-natal Department a card shall be made out and filled in, and this card shall be the only card or record of the case. It shall be transferable from any one Clinic to another; it shall be available for use in the Maternity Home for cases delivered in the Home, or in the extern department, or be accessible for medical practitioners or midwives in cases which will be delivered in their own homes other than by the Corporation Extern Midwifery Service.

The Matron shall be responsible for the efficient working of all the ante-natal clinics.

MATERNITY HOME.

The Matron shall be in charge of the Maternity Home and, subject to the supervision of the Medical Superintendent, shall be responsible for the efficient working of the Home itself and of the Extern Midwifery Service. The staff shall consist of:—

- A Matron,
- 3 Sisters,
- 3 Staff Nurses,
- 8 Pupils,
- and the Domestic Staff.

At the time of opening the Home, the state of the staff was as follows:—

Matron,
3 Sisters,
2 Staff Nurses,
8 Pupils.

Domestic Staff:—

Cook,
Dining-room Maid,
Housemaid,
Daily Housemaid,
Kitchen Maid,
2 Wardmaids,
Morning Charwoman,
2 Boiler Attendants and Porters.

One of the Sisters (at present Miss M. Morris) shall be in control, under the Matron, of the Extern Service. The Matron in consultation with the Medical Superintendent shall decide the duties of the two Ward Sisters, the Staff Nurses and of the Pupils.

The Sisters and Staff Nurses shall be appointed by the Maternity and Child Welfare Committee upon the recommendation of the Hospital Management Sub-Committee, but the domestic staff shall be engaged by the Management Sub-Committee upon the recommendation of the Matron, and the pupils shall be chosen by the Matron in consultation with the Medical Superintendent. The Matron, in consultation with the Superintendent, shall have power to accept and to terminate the engagement of the pupils and she shall have power to suspend, but not to dismiss, any member of the nursing or domestic staff. In connection with the pupils of the Wilts Nursing Association, no action shall be taken without the cognizance and consent of that body. In any case where the Matron has reason to suspend a member of the staff, she shall communicate at once with the Medical Superintendent, who shall report the matter to the next meeting of the Management Sub-Committee, or at a special meeting of that Sub-Committee should such be necessary.

The salaries of the nursing staff are as follows:—

Matron.—Commencing at £200 per annum, rising by 5 annual increments of £10 to a maximum of £250 per annum.

Extern Sister.—Commencing at £95 per annum, rising by 7 annual increments of £5 to a maximum of £150 per annum.

Hospital Sisters.—Commencing at £85 per annum, rising by 7 annual increments of £5 to a maximum of £120 per annum.

Staff Nurses.—Commencing at £80 per annum, rising by 4 annual increments of £5 to a maximum of £100 per annum.

(See Minute No. 29 of the Finance and Law Committee held on the 27th January, 1931).

The conditions of acceptance of the pupils are as follows:—

(Part of Minute No. 18 of the Health, &c., Committee held on the 9th December, 1930).

1. That the Corporation accept suitable untrained candidates as pupil midwives, other than through the Wilts Nursing Association, upon the following terms:—(a) In consideration of a premium of £30, in addition to the grant paid to the Corporation by the Ministry of Health, the Corporation to train the pupil midwife for a period of 12 months, or such reasonably longer period as may be requisite to enable the pupil midwife to obtain the Certificate of the Central Midwives Board. The first moiety of the premium to be paid by the pupil midwife at the commencement of her training, and the second moiety to be paid by the pupil midwife at the expiration of 6 months from the commencement of her training. (b) The Corporation to pay the pupil midwife during her training at the rate of £20 per annum, plus £5 per annum for uniform, payable monthly. (c) The Corporation to pay on not more than two occasions, the examination expenses of the pupil midwife.

2. TRAINED PUPILS. Fully trained nurses, possessing the three years certificate, are accepted for training as midwives upon the following terms:—

They must guarantee to practise midwifery after receiving their certificate and to remain as servants of the Corporation for nine months after obtaining the certificate of the C.M.B. In return for this, no premium is required and the Corporation will pay a salary at the rate of £20 per annum, plus £5 per annum for uniform, for fifteen months and the examination expenses of the candidates, and give them the requisite six months training.

3. WILTS NURSING ASSOCIATION PUPILS. Untrained women are accepted from the Wilts Nursing Association only, for one year's training to obtain the C.M.B Certificate. These pupils really belong to the Wilts Nursing Association. The Corporation agrees to train them for a year and pay them a salary at the rate of £15 per annum, plus examination expenses. The expenses entailed by training this class of pupils are recoverable by the Council from the Wilts Nursing Association according to agreement. These pupils sign a declaration that they will practise midwifery for a certain length of time in the County of Wiltshire.

The number of pupils accepted for training will vary from time to time and will probably be increased when the Centre has reached a stable condition. It is advisable that so far as possible there should be equal numbers of trained and untrained pupils.

The salaries of the domestic staff are as follows:—

Cook—£40 per annum.

Dining-room Maid—£36 per annum.

Housemaid—£35 per annum.

Daily Housemaid—£36 per annum.

Kitchen Maid—£25 per annum.

Ward Maid—£42/10/- per annum.

Second Ward Maid—£38/10/- per annum.

Morning Charwoman—£1 per week.

(See unprinted minutes of the Health, &c., Committee held on the 21st April, 1931).

BOILER ATTENDANTS AND PORTERS.

There shall be two boiler attendants and porters working alternate shifts, according to the sub-joined schedule. The duties of these men shall be to attend to the heating apparatus and to help the Matron in connection with the Home, House and Garden in any direction in which their services may be required.

Hours of Duty and Rates of Pay for Boiler Attendants and Porters at the Maternity Home:—

Morning Shift:

5.30 a.m. to 8 a.m. ... 2½ hrs.

9 a.m. to 1.30 p.m. ... 4½ hrs.

7 hrs. × 6 =

42 hrs. plus 4½ hrs. alternate Sundays.

Rate of Pay—£3 per week.

Afternoon Shift:

1.30 p.m. to 4.30 p.m. ... 3 hrs.

5.30 p.m. to 9.30 p.m. ... 4 hrs.

7 hrs.

Hours as above. Rate of Pay—
£1/10/0 per week.

Sunday :

5.30 a.m. to 8 a.m.	...	...	...	2½ hrs.
7 p.m. to 9 p.m.	...	...	...	2 hrs.
				—
				4½ hrs.

(See Minute No. 90 of the Health, &c., Committee held on the 28th April, 1931).

MEDICAL ATTENDANCE.

1. The Medical Officer of Health of the Borough shall be the Medical Superintendent of the Hospital. He shall be responsible for the administration of the Home and for seeing that the orders of the Central Midwives Board, of the Ministry of Health and of the Maternity Sub-Committee of Swindon are carried out. He shall see that the requirements of the medical staff are supplied.

2. All communications connected with the Institution shall be addressed to the Medical Superintendent, but he may delegate to the Matron certain powers of correspondence. He shall be responsible to the Committee for everything connected with the Home and Hospital, and the Matron shall be responsible to the Medical Superintendent for the whole of her duties.

3. The Medical Superintendent shall visit the Home at least once a day and at any time when required by the Matron or by any doctor. He shall decide who shall be admitted into the Home and who shall be refused admission, and he shall see every patient before she is discharged from the Home.

4. The Corporation shall appoint a rota of practitioners to act as obstetricians to the Home on behalf of cases other than doctors' booked cases. The doctors on this list shall be liable to be called in by the Matron in cases of difficulties occurring in midwives' cases. The rota shall consist of two practitioners in private practice in Swindon, and one practitioner, with a deputy, appointed by the G.W.R. Medical Fund Society. So far as practicable the G.W.R. Medical Fund doctors shall attend G.W.R. Medical Fund patients, and the private practitioners shall attend all others, but any doctor on the rota may be called to attend any case. These doctors shall be paid by fees according to the scale of the Central Midwives Board. Their duties shall be to attend the Home when asked to do so by the Matron. The services of the Consultant shall be at the service of the doctors on the rota. The Consultant's fees shall be paid by the Corporation. The obstetricians shall obtain the services of an anaesthetist when necessary, and the fee of the anaesthetist—£1/1/- per administration—shall be paid by the Corporation.

5. The Consulting Gynaecologist shall attend to such cases as the medical staff desire. He shall under no circumstances act on behalf of anybody except a medical practitioner. The Medical Superintendent shall be free to consult the Consultant and the Consultant shall be free to consult the Medical Superintendent upon any matter in which one desires the opinion of the other.

6. Any woman resident in Swindon may, if she so desires, be delivered in the Maternity Home provided that there is accommodation available and that there is no medical reason for refusing her. In the ordinary way patients will book with the Matron at some date before their expected confinements. Patients who book accommodation in the Home will be considered as midwives' cases unless they express the desire to be attended by a medical practitioner. Subject to the provisions which follow, the latter will be booked as doctors' cases. When booking for admission into the Home, the applicant shall be told what fee will be expected of her; this fee to be in accordance with the scale laid down by the Town Council.

7. Patients booking as doctors' cases shall pay their medical fees themselves and the Corporation shall accept no responsibility in connection with these fees. No case shall be booked as a doctor's case until the doctor whom the patient desires to attend her has been notified and has accepted the liability.

8. With the exception of booked doctors' cases, the fees chargeable for admission into the Home shall include all medical expenses which may be incurred. This means that the Corporation accepts liability for payment for medical attention sought by the midwives.

9. G.W.R. Medical Fund cases must be considered as midwives cases unless one specified G.W.R. doctor accepts the responsibility for the case and will guarantee to attend if required by the patient herself or by the midwife.

10. The same regulations in regard to medical attention shall apply to emergency as to booked cases.

11. Cases which are booked and accepted as doctors' cases shall be attended by those doctors. Midwives cases for which medical attention is sought by the midwives shall be attended by one of the practitioners on the rota, and the Consultant when required by the practitioners on the rota.

12. Every rise of temperature, whether it falls under the definition in the Puerperal Pyrexia Order or not, shall be reported forthwith to the Medical Superintendent and he shall decide how the case is to be dealt with. Every case of discharging eyes in an

infant is to be referred at once to the Medical Superintendent, who shall decide how the case is to be dealt with. If the Medical Superintendent decides that any mother, child, or both should be removed to the separation block, the case shall be so removed, and if he decides that the case should be removed to the Isolation Hospital, it shall be so removed forthwith. The duty of notification of cases required to be notified under the Infectious Disease Notification Act or Puerperal Pyrexia Order shall rest with the Medical Superintendent. These regulations apply without exception to all cases admitted to the Home.

13. **EMERGENCY CASES.** As heretofore, emergency cases may be admitted on application to the Matron by any medical practitioner. No admission other than through a medical practitioner can be considered. The Matron shall be empowered, subject to accommodation being available, to admit obstetric emergencies, with the exception of ante-natal cases not in labour, cases of abortion and threatened abortion, cases which have already been delivered, cases with present pyrexia, or cases suspected of suffering from venereal disease. Application for the admission of any cases of these classes must be referred to the Medical Superintendent.

14. **ANAESTHETIST.** A doctor requiring an anaesthetist may select any practitioner he desires to give the anaesthetic for him. In those cases where the Corporation accepts the liability for medical attention it shall accept also the liability for the anaesthetist's fees, which shall be at the rate of £1/1/- per administration.

15. It shall be a standing rule that no induction of labour before the thirty-second week of pregnancy shall be undertaken in the Home without a previous consultation of at least three medical practitioners, at which agreement as to the advisability of the proposed induction has been reached, and this decision shall be recorded in writing.

16. **FINANCE.** The Corporation shall pay to the practitioners called in rota the fees sanctioned by the Central Midwives Board. These fees shall be payable under the Maternity and Child Welfare Acts. They are a liability upon the Council and no practitioner on the rota shall charge to the patients, either directly or indirectly, any fee for attendance sought by the midwives.

The Corporation shall pay a fee of £1/1/- for the administration of an anaesthetic for those cases attended by the practitioners on the rota, or the Consultant acting for these practitioners.

The Corporation shall pay the Consultant fees according to the following agreed scale:—

For each delivery case to which he is called, a fee of £5/5/- if he is in Swindon at the time, or of £7/7/- if he has to be called specially from London. If the delivery involves the operation of Caesarean Section, the fee shall be £10/10/-.

A fee of £2/12/6 per session of one and a half hours duration in connection with the Consulting Ante-natal Clinic.

A fee of 10/6 for each case other than one involving delivery to which he may be called in consultation.

The above-mentioned fees shall be inclusive of all that is required for the treatment of the case in respect of which they are paid, and of all travelling and incidental expenses incurred in connection therewith.

No fees shall be payable by the Corporation on account of doctors' booked cases.

No fees payable by the Corporation shall be recoverable from the patients as such, as they are included in the total fees payable.

Fees payable to the Consultant on behalf of the County Council shall be recovered from the County Council.

The fees chargeable to the patients shall be in accordance with the schedule, and the Matron and Medical Superintendent shall have no power to vary them. The Matron may accept, either beforehand or during the time that the woman is in the Home, either the whole or part of the fees payable, but she shall not accept, or attempt to obtain, any fees or part of fees still owing by the patient after her discharge from the Home. Where the full fees have not been paid before the patient leaves the Home, the matter shall be reported to the Borough Treasurer's Department. The Matron shall give a receipt, stamped where legally necessary, for all fees or parts of fees received by her. The Matron shall use a receipt book with counterfoils, and no receipts shall be used other than those from the receipt book. The receipts will each bear a number and cipher so that at any time they can be traced and cannot be reduplicated. Should any receipt be made out and not used, lost or defaced, it shall be destroyed if it can be found, and the counterfoil cancelled and signed by a responsible officer. Under no circumstances whatever shall a counterfoil be destroyed.

LAUNDRY.

The laundry for the Maternity Home shall be done at the Isolation Hospital. The Isolation Hospital will collect and deliver the washing and the Maternity Home will supply the necessary baskets to contain it. A financial arrangement will be made between the Committees governing the two Hospitals, based upon the amount of the work and the prices paid at present for the washing done for the temporary Maternity Hospital.

MEDICAL ARRANGEMENTS IN RESPECT TO COUNTY CASES.

METHOD OF ADMISSION.

(a) BOOKED CASES. The County beds to be available for abnormal and normal clean maternity cases and for abnormal clean ante-natal cases.

The usual County recommendation form to be sent to the County Medical Officer by doctor or midwife (including Matron of the Home). If accepted on behalf of the County Council the usual signed acceptance to be sent by the County Medical Officer to the Matron. This acceptance includes agreement to the patient's offered contribution.

The patient thereafter to be admitted as soon as necessary by direct arrangement between the patient and the Home. The County Council accepts no responsibility for bookings not authorised in this manner.

(b) EMERGENCY CASES. The Matron to be empowered to admit ordinary emergencies, subject to accommodation being available, but the Matron must obtain the decision of the Medical Superintendent as to admission when the case is one of certain types. The working arrangements under this head to be made by the Medical Superintendent with due regard to the necessity for prompt decision in all cases.

The County Medical Officer to accept responsibility on behalf of the County Council for all emergency cases admitted from the County area as above and reported at once to him.

(c) INFORMATION AS TO CASES. Details of admission and personal information about the patients to be obtainable when necessary by the County Medical Officer directly from the Matron.

ENTRY. The County Medical Officer or one of his medical staff acting as his deputy should have right of entry to the Home

for the purpose of being cognisant of the conditions under which County patients are treated.

PYREXIA AND SEPSIS. No cases except of the mildest description to be retained in the Home and then only in segregation wards.

Emergency cases, or cases in which any attempt at delivery has been made previous to admission, will be taken into Labour Room B, which is not used for clean cases, and from there sent into separation. Under no circumstances will they be transferred to a clean ward earlier than eighty-four hours after admission.

The County Medical Officer to be informed at once of the occurrence of pyrexia in the Home, by telephone if the position is serious, or by letter if the condition is not one calling for special action.

ABORTIONS. Cases of abortion or threatened abortion to be admitted only under the following conditions, the term abortion to be taken as synonymous with miscarriage, and to mean the expulsion of a non-viable foetus:—

(1) That they are, in the opinion of the Medical Superintendent, not in danger of being a source of infection.

(2) No such cases to be admitted except to the segregation ward, and nursed by separate staff.

(3) The function of the segregation wards as primarily for use in connection with cases from the maternity wards always to take precedence over any function in connection with abortion.

RESPONSIBILITY FOR DISCHARGE. All cases to be seen by Medical Superintendent prior to discharge.

RECORDS. Details on the County health visiting form to be made out for all infants on discharge and sent to the County Medical Officer together with any necessary information as to abnormalities of the mother.

ANTE-NATAL CARE. All booked cases to be encouraged to attend the Ante-natal Clinic at the Home. The Consultant's Clinic to be used whenever a special opinion is desirable. The former service to be considered part of the facilities for County cases at the Home, but the half-guinea fee to be payable to the Consultant for all cases referred to him.

CONSULTANT'S SERVICES AT THE HOME. These to be available for County patients as follows:—

- (a) For opinion—Fee 10/6.
- (b) For all necessary attention to a complicated case—Fee £5/5/- (£7/7/- if called specially from London).
- (c) For Caesarian Section—Fee £10/10/-.

ORDINARY OBSTETRICAL ATTENDANCE AT THE HOME. The arrangements for County cases shall be similar to those for Borough cases, with the following proviso: That in doctors booked cases, should an emergency arise necessitating the immediate presence of a doctor, the Matron will be empowered to call in one of the recognised local staff if the patient's own medical attendant is not at once available.

GENERAL DIRECTIONS FOR PATIENTS.

Any woman resident within the Borough of Swindon may be delivered in the Maternity Home in consideration of paying the fees in accordance with the following schedule:—

SCALE OF FEES.

- | | |
|---|---|
| (a) Where the income is less than 12/6 per head, per week. | The equivalent of the maternity benefit up to a maximum of £2. |
| (b) Where the income exceeds 12/6 per head, per week, but is less than 15/- per head, per week. | The equivalent of the maternity benefit up to a maximum of £2, plus 5/- per week. |
| (c) Where the income exceeds 15/- per head, per week, but is less than 17/6 per head, per week. | The equivalent of the maternity benefit up to a maximum of £2, plus 10/- per week. |
| (d) Where the income exceeds 17/6 per head, per week, but is less than 25/- per head, per week. | The equivalent of the maternity benefit up to a maximum of £2, plus £1 per week. |
| (e) Where the income exceeds 25/- per head, per week, but is less than 35/- per head, per week. | The equivalent of the full maternity benefit, plus 30/- per week. |
| (f) Where the income exceeds 35/- per head, per week, but is less than 45/- per head, per week. | The equivalent of the full maternity benefit, plus £2 per week. If there is no maternity benefit, the fee charged shall be £3 per week. |
| (g) Where the income exceeds 45/- per head, per week, but is less than 55/- per head, per week. | £4 per week. |
| (h) Where the income exceeds 55/- per head, per week. | The whole of the expenses incurred in the maintenance of the patient as defined by Section 16 of the Local Government Act, 1929. |

In view of the increased benefits offered, subtraction of rent and insurance from the per capitem allowance to be discontinued.

In reckoning the size of the family, each child of any age below 16 counts as one head. No child over 16 years of age is to be counted, nor is the expected child to be counted.

In exceptional cases any fee may be remitted or reduced by resolution of the Management Sub-Committee.

Women wishing to book accommodation in the Home should apply to the Matron at Milton Road on Mondays between 6 and 7 p.m., who will present them with cards containing necessary instructions and stating specifically the fees which they will be required to pay. Any woman who books for her confinement in the Home, but who for any reason withdraws from her contract, must give notice immediately to the Matron that she will not require the accommodation. In such cases of withdrawal, the Council reserve the right to recover the whole or any part of the fees which would be payable for the accommodation.

County cases not resident in Swindon can only be accepted on the recommendation of the County Medical Officer. The method of admitting County cases is to be explained by the Matron to any women, not being residents of Swindon, who may apply for accommodation in the Home.

All booked cases, save any which are not surgically clean, shall be delivered in Labour Room A and admitted to the general wards. All emergency cases in delivery and booked cases doubtfully clean shall be delivered in Labour Room B and admitted to one of the two-bed wards and shall not be transferred to the general wards until at least 84 hours have elapsed since delivery.

Ante-natal cases in which there is a suspicion that labour has commenced or is threatening must be treated in isolation and not admitted to the general wards.

No cases shall be admitted to the Separation Block and no case transferred there except by order of the Medical Superintendent.

GENERAL INSTRUCTIONS FOR THE SUPERINTENDENT.

The Superintendent of the Home shall be the Medical Officer of Health of the Borough of Swindon, and his deputy shall be one of the Assistant Medical Officers of Health.

Every case notified under the Puerperal Pyrexia Order must be notified to the Ministry of Health and to the County Medical Officer. Every case of pyrexia in which the temperature reaches 100.4 and remains at this level for twenty-four hours, or in which it recurs, shall be considered to be notifiable and for this purpose the four-hourly temperature chart shall be utilised.

Every case of maternal death must be reported at once to the Ministry of Health and, should the deceased be resident in Swindon, the inquiry form of the Ministry of Health must be completed. Should, however, the deceased not be a native of Swindon, the County Medical Officer must be informed immediately and such help as he requires must be given to him, or to his officers, to enable him to complete the maternal mortality form of the Ministry.

Every stillbirth of over twenty-eight weeks gestation must be registered in accordance with the Births and Deaths Registration Act, 1926. In this connection, where the age of the foetus is doubtful, but it appears to be somewhere about or beyond the twenty-eighth week, the case shall be registered. The body of a stillbirth legally registrable must be dealt with in accordance with the requirements of the law and it may be necessary to explain to the parents that the body may not be destroyed or disposed of as was customary before the passing of the Act of 1926.

HOSPITAL TREATMENT FOR PUERPERAL SEPSIS.

(1) No case of puerperal sepsis may, under any circumstances, be admitted into the Maternity Home.

(2) Cases of puerperal sepsis can be admitted to the Isolation Hospital, Gorse Hill, where special arrangements have been made to deal with them. No case can be admitted to the Hospital except through the recommendation of a medical practitioner and/or with the sanction of the Medical Officer of Health of the Borough, or of the County Medical Officer.

(3) Practitioners desiring a patient to be removed to the Hospital shall communicate with the Matron of Gorse Hill Hospital (Telephone 142), who will arrange for the immediate removal, after consultation with the Medical Superintendent. Cases resident without the Borough and, therefore, chargeable to the Wilts County Council, shall be accepted only if authorised by the County Medical Officer. If reasonably possible, the authorisation shall be obtained from Trowbridge before admission, but in pursuance of the policy that avoidable delay shall never operate to the detriment of the patient, the Medical Superintendent is empowered to accept suitable County cases forthwith and to obtain the sanction of the County Medical Officer as soon as possible after admission.

(4) The Isolation Hospital will accept as puerperal sepsis, any case notifiable as puerperal fever or puerperal pyrexia, or any case of septic abortion, whether notifiable or not. The term "septic abortion" shall be held to cover all cases with present pyrexia, or who are in such a state that subsequent pyrexia is probable and who are, therefore, not admissible into the Maternity Home.

VENEREAL DISEASE. Cases suffering from active venereal disease are not admissible to the Maternity Home, but are admissible to the County Council's V.D. Hospital at Gorse Hill. So far as patients and practitioners are concerned, the machinery for admission to the V.D. Hospital is exactly the same as that for admission to the Isolation Hospital.

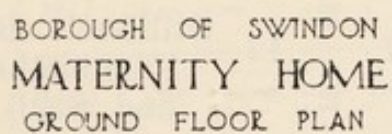
DUNSTAN BREWER,

Medical Officer of Health and
Medical Supt. Maternity Home.

Public Health Department,

61, Eastcott Hill,

Swindon.



BOROUGH OF SWINDON.

GENERAL STATISTICS.

Area (acres)	...	...	...	...	6021
Population: Census 1931	...	...	...	...	62407
Estd. middle of 1931	...	...	...	...	62700
Number of inhabited houses (1931)	...	...	...	...	15810
Number of families or separate occupiers (1931)	...	...	...	...	(Figure not available).
Rateable Value (General Rate)	...	...	...	...	£320,118
Sum represented by a penny rate	...	...	...	...	£1,307

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

	Total	M.	F.	
Births: Legitimate	... 888	456	432	
Illegitimate	... 22	11	11	Birth Rate 14.51
Stillbirths: Legitimate	34	17	17	Stillbirth Rate per 1000 births (Live and Still) 36.02
Illegitimate	—	—	—	
Deaths	... 682	342	340	Death Rate 10.88
Number of women dying in, or in consequence of childbirth	} From sepsis ... 1 } From other causes ... 1			
Deaths of Infants under one year of age per 1,000 births:—				
Legitimate	54.05	Illegitimate	136.36	Total 56.04
Number of deaths from Measles (all ages)	...	...	...	1
„ „ „ Whooping Cough (all ages)	...	...	...	—
„ „ „ Diarrhoea (under 2 years of age)	...	...	...	—

INFECTIOUS DISEASE.
Table showing the numbers of Infectious Diseases notified in the Borough during the year 1931.

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	.. 2	.. 7	.. 2	.. 9	.. 9	.. 77	.. 14	.. 6	.. 8	.. 6	.. 2	..	.. 142	.. 10
Diphtheria	..	..	..	..	..	..	.. 1	..	.. 4	.. 1	.. 6	.. 1	.. 13	.. 2
Erysipelas	.. 1	.. 1	.. 1	.. 5	.. 1	.. 13	.. 7	.. 3	.. 3	..	.. 1	..	.. 36	..
Scarlet Fever	.. 4	..	..	..	..	..	..	..	..	..	..	..	.. 4	..
Ophthalmia Neonatorum	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	.. 13	.. 22	.. 8	.. 7	.. 10	.. 20	.. 3	.. 2	.. 12	.. 16	.. 19	.. 11	.. 143	.. 37
Pneumonia	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever	..	..	..	..	..	.. 1	..	..	..	..	..	..	.. 1	..
Encephalitis Lethargica	..	..	..	..	..	..	..	..	.. 23	.. 3	.. 1	..	.. 27	..
Puerperal Pyrexia	..	..	..	..	..	..	..	..	.. 1	..	..	..	.. 1	..
Puerperal Fever	..	..	.. 1	..	..	.. 1	..	..	..	.. 1	..	..	.. 2	..
Poliomyelitis	..	..	..	.. 1	..	..	..	..	..	..	..	..	.. 2	.. 3*
Cerebro-spinal Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Polio-encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis—														
(a) Pulmonary	..	..	..	..	..	..	..	3	12	5	8	2	.. 30	.. 18
M	..	..	..	..	..	..	..	2	15	2	1	1	.. 21	.. 22
F	..	..	..	..	..	..	..	5	27	7	9	3	.. 51	.. 40
TOTAL	..	..	..	..	..	..	..	..	..	..	..	..	..	..
(b) Non-Pulmonary	..	..	..	..	..	4	4	3	2	..	..	..	.. 13	.. 1
M	..	.. 3	.. 1	.. 1	..	3	1	2	4	..	..	..	.. 15	.. 5
F	..	.. 3	.. 1	.. 1	..	7	5	5	6	..	..	..	.. 28	.. 6
TOTAL	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS	.. 20	.. 33	.. 13	.. 23	.. 20	.. 119	.. 30	.. 21	.. 84	.. 34	.. 38	.. 15	.. 450	.. 98

*One death certified as tuberculous meningitis subsequently altered to cerebro-spinal meningitis.

TABLE SHOWING MONTHLY INCIDENCE OF INFECTIOUS DISEASES AND THE NUMBER OF DEATHS
DURING 1931.

DISEASE.	NUMBER OF CASES.												Total.	No. of Deaths.
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
Smallpox ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Diphtheria ..	23	12	12	6	8	11	4	7	3	30	16	10	142	10
Erysipelas ..	—	2	2	2	—	—	1	—	2	—	—	4	13	2
Scarlet Fever ..	5	5	2	5	1	1	3	1	7	3	2	1	36	—
Ophthalmia Neonatorum ..	1	—	—	—	—	—	1	—	—	—	1	1	4	—
Dysentery ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia ..	17	18	23	19	7	9	4	3	5	6	10	22	143	37
Enteric Fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis Lethargica ..	—	—	—	—	—	—	—	1	—	—	—	—	1	—
Puerperal Pyrexia ..	1	1	—	1	4	4	2	—	3	6	3	2	27	—
Puerperal Fever ..	—	—	—	—	—	1	—	—	—	—	—	—	1	—
Poliomyelitis ..	—	—	—	—	—	—	1	1	—	—	—	—	2	—
Polio-encephalitis ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Meningitis ..	1	—	—	—	—	—	—	—	1	—	—	—	2	3*
Malaria ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Continued Fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS ..	48	38	39	33	20	26	16	13	21	45	32	40	371	52

*One death certified as tuberculous meningitis subsequently altered to cerebro-spinal meningitis.

TUBERCULOSIS, 1931.

Age Periods.	NEW CASES.				DEATHS.			
	Pulmonary		Non-Pulm'ry		Pulmonary		Non-Pulm'ry	
	M	F	M	F	M	F	M	F
Under 1 year ..	..	..	..	..	..	..	..	..
1—5 ..	..	..	..	5	..	..	..	2
5—10 ..	..	..	4	2	..	..	..	..
10—15 ..	..	..	4	2	..	..	..	..
15—20 ..	4	2	2	2	2	3	..	1
20—25 ..	6	9	..	2	2	7	..	1
25—35 ..	6	6	2	3	2	3	..	..
35—45 ..	5	2	..	..	6	2	..	..
45—55 ..	4	..	..	..	1	2	1	..
55—65 ..	4	1	..	..	4	4	..	1
65 and over ..	2	1	..	..	1	1	..	..
TOTALS ..	31	21	12	16	18	22	1	5

DEATHS FROM TUBERCULOSIS, 1931.

TABLE SHEWING WHEN CASES WERE NOTIFIED.

When Notified.	Pulmonary.		Non-Pulmonary.	
	Males.	Females	Males.	Females
One year or more before death	5	10	1	2
Less than one year and more than 6 months before death	4	1	..	..
Less than six months and more than two months before death	1	2	..	..
Less than two months before death ..	4	3	..	..
At or immediately before death ..	3	1	..	3
Unnotified. (Cases who died outside the Borough and never notified to Swindon).	1	5	..	..
TOTALS	18	22	1	5

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 1915-1931.

	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917	1916	1915
No. of cases notified (all forms)	80	86	98	114	102	94	91	111	117	103	98	97	73	116	129	132	140
Respiratory Tuberculosis ..	52	41	57	69	70	56	66	75	75	68	63	72	51	86	102	95	86
Deaths from Respiratory Tuberculosis	40	37	23	40	45	30	42	42	48	59	42	55	44	66	60	48	51
Deaths from Tuber. Meningitis	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	12	1	2	9	3	4	7	7	6	12	6	8	11	10	10	8
Total deaths from Tuberculosis	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	0.73	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	0.64	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

**REVIEW OF THE COMPARATIVE VITAL & MORTALITY
STATISTICS FOR THE BOROUGH OF SWINDON,
TOGETHER WITH THOSE FOR ENGLAND AND
WALES FOR THE YEARS 1901 TO 1931 INCLUSIVE.**

Year	BIRTH RATE.		DEATH RATE		INFANT MORTALITY RATE		Illegitimate Death Rate
	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	11.4	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

BOROUGH OF SWINDON.

CAUSES OF DEATH, 1931.

(Registrar-General's Official Returns).

CAUSES.	Males.	Females	Total.
Measles	1	—	1
Diphtheria	5	6	11
Influenza	18	21	39
Encephalitis Lethargica	1	—	1
Cerebro-spinal Fever	2	1	3
Tuberculosis of Respiratory System	19	22	41
Other Tuberculous Diseases	1	4	5
Syphilis	3	—	3
General Paralysis of the Insane, Tabes dorsalis	3	1	4
Cancer, Malignant Disease	46	52	98
Diabetes	7	7	14
Cerebral Haemorrhage, &c.	21	11	32
Heart Disease	70	81	151
Aneurysm	—	1	1
Other Circulatory Diseases	14	17	31
Bronchitis	9	19	28
Pneumonia (all forms)	12	12	24
Other Respiratory Diseases	9	3	12
Peptic Ulcer	4	2	6
Appendicitis	3	1	4
Cirrhosis of Liver	3	1	4
Other Diseases of Liver, etc.	—	1	1
Other Digestive Diseases	5	7	12
Acute and Chronic Nephritis	6	7	13
Puerperal Sepsis	—	1	1
Other Puerperal Causes	—	1	1
Congenital Debility, Premature Birth, Malformations, &c.	23	15	38
Senility	10	16	26
Suicide	4	3	7
Other Violence	14	4	18
Other Defined Diseases	29	23	52
	342	340	682

BOROUGH OF SWINDON.

INFANT MORTALITY.

1931. *Nett Deaths from stated causes at various ages under One Year of Age.*

Compiled from the Official Registrations.

CAUSES OF DEATH.		Under 1 week.	1—2 weeks.	2—3 weeks.	3—4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total deaths under 1 year.
All Causes :—											
Certified	.. ..	25	5	2	1	33	5	3	5	5	51
Uncertified	.. ..	..	..	..	..	..	..	..	..	..	..
{ Small-pox	.. ..	..	..	..	..	..	..	..	..	..	..
{ Chicken-pox	.. ..	..	..	..	..	..	..	..	..	..	..
{ Measles ..	.. ..	..	..	..	..	..	..	..	..	..	..
{ Scarlet Fever	.. ..	..	..	..	..	..	..	..	..	..	..
{ Diphtheria and Croup	.. ..	..	..	..	..	..	..	..	..	..	..
{ Whooping Cough	.. ..	..	..	..	..	..	..	..	..	..	..
{ Diarrhoea	.. ..	..	..	..	..	..	..	..	..	..	..
{ Enteritis	.. ..	..	..	..	..	..	..	..	..	..	..
{ Tuberculous Meningitis	.. ..	..	..	..	..	..	..	..	..	..	..
{ Abdominal Tuberculosis	.. ..	..	..	..	..	..	..	..	..	..	..
{ Other Tuberculous Disease	.. ..	..	..	..	..	..	..	..	..	..	..
{ Congenital Malformations..	.. ..	2	..	1	..	3	..	..	3	..	6
{ Premature Birth ..	.. ..	14	4	1	1	20	1	..	..	..	21
{ Atrophy, Debility and Marasmus	.. ..	3	..	..	..	3	1	..	..	..	4
Atelectasis	.. ..	..	..	..	..	..	..	..	..	..	..
Injury at Birth	.. ..	4	..	..	..	4	..	..	..	..	4
Erysipelas	.. ..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	.. ..	..	..	..	..	..	..	..	..	..	..
Rickets ..	.. ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous)	.. ..	..	..	..	..	..	..	..	..	..	..
Convulsions	.. ..	..	..	..	..	..	..	..	..	2	2
Gastritis	.. ..	..	..	..	..	..	..	..	..	..	..
Laryngitis	.. ..	..	..	..	..	..	..	..	..	..	..
Bronchitis	.. ..	..	..	..	..	..	..	1	..	..	1
Pneumonia (all forms)	.. ..	..	..	..	..	..	2	1	1	1	5
Suffocation, overlying	.. ..	..	..	..	..	..	..	..	1	..	1
Influenza	.. ..	..	..	..	..	..	..	1	..	1	2
Empyema	.. ..	..	1	..	..	1	..	..	..	..	1
Peritonitis of Abdominal Wall	.. ..	..	..	..	..	..	1	..	..	..	1
Inattention at Birth	.. ..	2	..	..	..	2	..	..	..	..	2
Accidents	.. ..	..	..	..	..	..	..	..	..	1	1
TOTALS	.. ..	25	5	2	1	33	5	3	5	5	51

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

TUBERCULOSIS.

Two beds at Winsley Sanatorium, near Bath, provided by the local authority.

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.

(This Home was opened in May, 1931, and superseded the temporary Home at Milton Road).

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 Street	Tuesdays, 2 p.m. to 4 p.m.	"
Maternity and Child Welfare	Primitive Methodist School, Romsey Street	Thursdays, 2 p.m. to 4 p.m.	"
Maternity and Child Welfare	Primitive 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 and 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., & 2 p.m. to 5 p.m. (Sats. 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)	"	Mondays, 2 p.m. to 5 p.m.	"
Electrical Ionization Clinic	"	Fridays, 2 p.m. to 4 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
Veneral Diseases Clinic	Isolation Hospital, Gorse Hill	Men — Wednesdays, 6.30 p.m. to 8.30 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 11 a.m. to 5 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.

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.	} 3rd Jan., 1927.
Part IV., Secs. 62, 64 and 65.	
Part X., Sec. 93.	

THE PUBLIC HEALTH ACT, 1925 :—

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

AMBULANCE FACILITIES

(2) For Ambulance Services: The Ambulance Services are provided by the Ambulance Service of the County of ... and a ... is provided by the ...

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

LOCAL ACTS AND ORDERS

The following table shows the Local Acts and Orders in force in the District at the end of the year 1907. The table is arranged in chronological order of the date of the Act or Order.

Date	Title of Act or Order
1907	...
1906	...
1905	...
1904	...
1903	...
1902	...
1901	...
1900	...
1899	...
1898	...
1897	...

GENERAL ADOPTIVE ACTS IN FORCE

The following table shows the General Adoptive Acts in force in the District at the end of the year 1907. The table is arranged in chronological order of the date of the Act.

Date	Title of Act
1907	...
1906	...
1905	...
1904	...
1903	...
1902	...
1901	...
1900	...
1899	...
1898	...
1897	...

THE PUBLIC HEALTH ACT AMENDMENT ACT, 1907

The following table shows the provisions of the Public Health Act Amendment Act, 1907, which are in force in the District at the end of the year 1907.

Section	Provision
Section 1	...
Section 2	...
Section 3	...
Section 4	...
Section 5	...
Section 6	...
Section 7	...
Section 8	...
Section 9	...
Section 10	...
Section 11	...
Section 12	...
Section 13	...
Section 14	...
Section 15	...
Section 16	...
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Section 85	...
Section 86	...
Section 87	...
Section 88	...
Section 89	...
Section 90	...
Section 91	...
Section 92	...
Section 93	...
Section 94	...
Section 95	...
Section 96	...
Section 97	...
Section 98	...
Section 99	...
Section 100	...

THE PUBLIC HEALTH ACT, 1907

The following table shows the provisions of the Public Health Act, 1907, which are in force in the District at the end of the year 1907.

Section	Provision
Section 1	...
Section 2	...
Section 3	...
Section 4	...
Section 5	...
Section 6	...
Section 7	...
Section 8	...
Section 9	...
Section 10	...
Section 11	...
Section 12	...
Section 13	...
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Section 88	...
Section 89	...
Section 90	...
Section 91	...
Section 92	...
Section 93	...
Section 94	...
Section 95	...
Section 96	...
Section 97	...
Section 98	...
Section 99	...
Section 100	...

APPENDIX.

BOROUGH OF SWINDON.

ANNUAL REPORT

OF THE

Chief Sanitary Inspector

F. H. BEAVIS

For the Year 1931.

To the Chairman and Members of the Health, &c., Committee.

LADIES AND GENTLEMEN,

I have the honour of submitting my sixth Annual Report dealing with the work carried out by the Sanitary Department during the year ended 31st December, 1931.

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.

In July, Mr. L. R. Eldred, who held the post of Third Assistant Sanitary Inspector, was taken ill and expired after a very short illness. In September, Mr. F. R. G. Selwood was appointed to the vacancy caused by the death of Mr. Eldred, and took up his duties on the 5th October. Apart from this, the personnel of the Sanitary Staff underwent no change.

MILK SUPPLY.

As I have said in previous years, Swindon occupies a very favourable position so far as milk supply is concerned, being situated in the midst of an agricultural district. Practically all of Swindon's milk is delivered direct from the farm to the consumer, with a minimum of handling, within a very short period of its being obtained from the cow. On the whole, the milk supply of the Borough is adequate and fairly satisfactory.

During the year, about 40 milk samples were taken for bacteriological examination, the result of which will be found in the report of the Medical Officer of Health.

During May and June, a Clean Milk Course for Sanitary Inspectors was held at The College, Swindon, and proved to be very successful, the average attendance at the Lectures and Demonstrations being 14 students from the surrounding districts.

There were two prosecutions against traders for offences under the Acts and Orders relating to milk. One case was for bottling milk in the street, when a fine of £1, to include costs, was imposed; while the other was for carrying on the business of a dairyman within the Borough without first being registered by the Local Authority to do so, a fine of £2, including costs, being imposed. Milk bottling in the streets is very objectionable, and strict watch is kept throughout the year by your Inspectors to prevent this from being done.

The demand for graded and pasteurised milk is gradually increasing, and the trade is doing its best to cope with this

increased demand. This is all to the good, as graded milk is produced under extra-hygienic conditions, but at the same time the Department is making every effort to bring all the milk producers within the Borough up to as high a standard of cleanliness as possible.

One farm and two bottling establishments 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, and there is one retailer of Grade A Milk from outside 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.

FOOD SUPPLY.

The tables appended hereto give a résumé of the work carried out under the Meat Regulations. A total of 13,489 animals was slaughtered for human consumption during the year, every one of which was seen by your Inspectors before being offered for sale as food. The work of meat inspection is of the highest importance so far as the health of the public is concerned, as it is only by a system of careful inspection that unsound food is prevented from reaching the consumer. The traffic in dead meat from outside districts still continues, but a careful watch is kept by your Inspectors, and the quality of the meat brought into the Borough from these sources is certainly improving. This work is extremely important, and it is practically impossible for the Inspectors to see all the meat brought in. As I have said before, a recognised clearing-house for all meat brought into the Borough appears to be the only solution to the problem, and if the necessary powers were vested in the Local Authority, a considerable check on the traffic in meat of doubtful quality would be effected.

The unsound food amounted to just under 20 tons. This figure is again lower than the previous year, but, as I pointed out in last year's report, certain butchers now find that it pays them to slaughter outside the Borough, where there is a better chance of getting the meat through. A compulsory clearing-house for all meat brought into Swindon would materially put a check on this practice.

The provision of a Public Abattoir has apparently been shelved for some considerable time, owing to the need for national economy, but in my opinion a Public Abattoir is the only place where the slaughtering of animals for human consumption can be properly supervised and controlled.

There were two prosecutions relating to unsound food during the year. In one case the slaughterman was fined £5 for failing to notify slaughter of a sheep for human consumption. This sheep proved, on examination, to be unfit for food. The other case was for exposing diseased meat for sale in a butcher's shop, and for this offence the defendant was fined £10.

A Meat Inspection Course for Sanitary Inspectors is being held at The College, Swindon, with a view to obtaining a system of uniform inspection in our immediate neighbourhood. Thirty-two inspectors have enrolled for the Course, and the average attendance is twenty-six.

CASEOUS LYMPHADENITIS.

During the year a very small quantity of imported frozen mutton was released from the ports for inspection at the place to which it was consigned. In Swindon we had only one consignment of 25, as against 700 in 1930. On examination none of these carcasses were found to be affected with the disease.

HOUSING.

The housing situation is gradually improving, but there are very few houses to let at rents which the poorer classes of the community can afford to pay. Consequently, there is still a considerable amount of overcrowding. The only solution to this problem appears to be to evolve some scheme whereby houses suitable for these poor people to occupy can be erected so as to let at a rental of not more than 7 to 10 shillings per week inclusive. During the year, 76 houses were erected by the Local Authority and 149 by private individuals. Last year the totals were 42 and 163 respectively. There was no litigation respecting Housing during the year, but a considerable amount of useful work was accomplished without having recourse to any drastic measures. W.C.'s without flushing apparatus are fairly numerous, but much is being done in the direction of reducing the number of such W.C.'s. These conveniences are not necessarily in a state of nuisance—in most cases they are kept scrupulously clean; but in these days one would like to see every W.C. fitted with proper and adequate flushing arrangements, in the interests of public health.

TENTS, VANS AND SHEDS.

At present there are very few caravans being used for human habitation within the Borough. However, there are still one or

two which one would like to see given up. The occupants of these caravans keep strictly within the bye-laws in force respecting these structures, and so long as they continue to do so it is extremely difficult to deal effectually with this problem.

THEATRES, CINEMAS, ETC.

There are at present six cinemas, two billiard halls and twenty-two dancing halls licensed within the Borough. These premises are regularly visited by your Inspectors, so as to ensure their being kept in a cleanly and sanitary condition. In two of the cinemas the sanitary arrangements have been overhauled and brought up to standard.

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. A table is appended, showing the particulars of the receipts and expenditure incurred during the year.

DRAINAGE WORK.

During the year, the drainage systems of 420 houses were either relaid or overhauled. This large number is accounted for by the fact that numerous premises within the added area were practically without any proper means of drainage, whilst others were provided with cesspits which were more or less in a state of perpetual nuisance; and in one instance several houses were connected up to what amounted to a system of broad irrigation which was undoubtedly a serious nuisance. But since the new sewer has been put in in the Rodbourne Cheney area, much of this unsatisfactory state of affairs has been remedied. Some difficulty was experienced in keeping abreast of this work, because, to keep the work under proper supervision, practically the whole time of one of the Inspectors had to be devoted to this work. It also became necessary to obtain further assistance in the testing of the drains, and an extra man was borrowed from the Surveyor's Department for that purpose, as the Disinfector, owing to his other duties, could not be spared to help in this work.

GENERAL.

Owing to the wet summer, there was a certain amount of flooding in the lower lying parts of the Borough. Nothing much

could be done to overcome the difficulty owing to the lie of the land and the absence of natural drainage, but the matter righted itself when the weather improved.

In the Rodbourne area, owing to the additional houses recently built in this locality, some trouble was caused from the overflowing of the sewers in time of heavy rain. Your Inspector conferred with the Borough Surveyor on the matter and a scheme for relieving the sewer by the provision of a separate drain to take the surface water was formulated, and this, when completed, should obviate the nuisance.

RATS AND MICE DESTRUCTION.

Rats and Mice again proved troublesome during the year, the wet summer apparently having no adverse effects on the propagation of these pests. In fact, an exceptionally heavy invasion of the various Tips took place during the autumn, and it was with great difficulty that these vermin were kept under control. The rodents also invaded the railway embankment adjoining the Rodbourne Tip, and were undermining it to such an extent that it was fast becoming dangerous. In conjunction with the Company's Engineer a concentrated effort was made to smoke out the rats, when over 300 were accounted for.

A perusal of the table under this heading will show that much useful work is being accomplished, nearly 7,000 of these pests being caught during 1931.

I am, Ladies and Gentlemen,

Your obedient servant,

F. H. BEAVIS,

Chief Sanitary Inspector.

SANITARY STATISTICS.
TABLE OF NUISANCES RECORDED AND ABATED, 1931.

Nature of Complaints registered.	Defects brought forward from 1930	Complaints received and visited during 1931	Total	No. of complaints abated during 1931	No. of cases not abated at end of year.
Defective drains	24	139	163	135	28
" traps	6	35	41	37	4
" spouts and eaves troughing	23	69	92	67	25
" roofs	42	75	117	97	20
" and dirty W C. pans	10	113	123	118	5
" floors	33	69	102	76	26
" and insufficient yard paving	8	58	66	52	14
" walls	65	125	190	152	38
" flushing cisterns ...	28	41	69	64	5
" ceilings	27	69	96	82	14
" forecourts	2	15	17	11	6
" sinks	3	10	13	12	1
" offensive animals ..	—	6	6	5	1
Offensive accumulations	2	81	83	75	8
Choked drains	3	173	176	162	14
Damp walls	19	32	51	41	10
Dirty rooms	78	345	423	337	86
Overcrowding	7	27	34	27	7
Absence of covered receptacle at butchers' premises	—	2	2	2	—
Miscellaneous	141	727	868	747	121
TOTALS	521	2211	2732	2299	433

VISITS AND INSPECTIONS, 1931.

Infectious Disease	...	...	...	...	...	293
Work in course of construction	...	...	...	...	...	3428
Slaughterhouses	...	...	...	...	...	3857
Bakehouses	...	...	...	...	...	150
Dairies, Cowsheds and Milkshops	...	...	...	...	...	458
Markets	..	...	...	...	...	596
Outworkers	...	...	...	...	...	35
Common Lodging Houses	...	..	...	...	...	24
Fried Fish Shops	...	...	...	...	...	827
Re-visits	...	...	...	...	...	2074
Miscellaneous	...	...	...	...	...	2683
Workshops	...	...	...	...	...	547
Ice Cream Shops	...	...	...	...	...	54
Butchers' Shops	...	...	...	...	...	308
Contacts with Smallpox	...	...	...	...	...	—
Pig-killing on private premises	...	...	...	...	...	52
House-to-House Inspections	...	...	...	...	...	164
TOTAL	...	...	...	...	...	15350

DEFECTS IN OUTWORKERS' PREMISES.

Dirty Floors	...	...	...	...	...	1
Dirty Ceilings	...	...	...	...	...	2
Dirty Walls	...	...	...	...	...	2
Defective Roofs	...	...	...	...	...	—
.. Water-closets	...	...	...	...	...	—
.. Floors	...	...	...	...	...	—
.. Yard Paving	...	...	...	...	...	—
.. Firegrates	...	...	...	...	...	—
.. Walls	...	...	...	...	...	—
.. Drains	...	...	...	...	...	—
Other Defects	...	...	...	...	...	3
TOTAL	...	...	...	...	...	8

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)	117	3	Nil
Workshops (including Workshop Laundries)	387	16	Nil
Workplaces (other than Outworkers' Premises)	43	3	Nil
TOTAL	547	22	Nil

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

Particulars.	Number of Defects.			Number of Offences in respect to which Prosecutions were Instituted. (5)
	Found. (2)	Remedied. (3)	Referred to H M. Inspector. (4)	
(1)				
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness ...	79	75	...	..
Want of ventilation ...	2	2	...	..
Overcrowding ...	...	...	...	..
Want of drainage of floors ...	...	...	...	..
Other nuisances ...	10	10	...	..
Sanitary accommodation { insufficient 				

* 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	...	...	...	3737
Number of Applications Granted	...	...	...	3737
Quantity given: Fluid	...	...	...	464½ galls.
Powder	...	...	4cwts. 3qrs.	23lbs.

DISINFECTION.

Cases of Infectious Disease	...	...	...	340
„ Cancer	...	...	...	45
„ Consumption	...	...	...	152
„ Smallpox	...	...	...	—
Verminous Rooms	...	...	...	196
Number of Lots of Bedding destroyed	...	...	...	39
Number of Lots of Bedding disinfected	...	...	...	410
School Shawls disinfected	...	...	...	35
Library Books disinfected	...	...	...	72
Animals destroyed	...	...	...	5
Miscellaneous Articles disinfected	...	...	...	268
Miscellaneous Articles destroyed	...	...	...	—
Number of School Rooms disinfected	...	...	...	6

DAIRIES, COWSHEDS AND MILKSHOPS.

Dairies and Milkshops	...	...	...	58
Cowsheds	...	...	...	22
Milk Purveyors from outside the Borough	...	...	...	33
TOTAL	...	...	...	113

One farm and two bottling establishments 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, and there is one retailer of Grade A Milk from outside 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.

Inspections	...	...	...	...	458
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DAIRIES, COWSHEDS AND MILKSHOPS.—Contd.

NUISANCES FOUND—

Dairies requiring limewashing	...	...	...	14
Cowsheds requiring limewashing	...	...	...	15
Dirty yards	...	...	...	1
Defective paving	...	...	...	3
Offensive accumulations	...	...	...	6
Defective ceiling plaster	...	...	...	1
Unsuitable and dirty utensils	...	...	...	1
Milk and containers uncovered	...	...	...	12
Defective floors	...	...	...	1
Defective vent shafts	...	...	...	—
Dirty conditions	...	...	...	20
Insufficient water supply	...	...	...	—
Choked drains	...	...	...	1
Defective water-closets	...	...	...	—
Defective drains	...	...	...	—
Miscellaneous	...	...	...	26
TOTAL	...	...	...	101

SLAUGHTERHOUSES.

Registered	...	...	...	...	...	...	8
Licensed	...	...	...	...	...	...	12
TOTAL	...	...	...	...	...	...	20
Number of Inspections	...	...	...	...	...	...	3857

NUISANCES FOUND—

Requiring limewashing	...	...	...	...	35
Want of cleanliness	...	...	...	...	6
Insanitary condition of pens and yards	...	...	...	...	4
Offensive accumulations	...	...	...	...	6
Choked drains	...	...	...	...	4
Other defects	...	...	...	...	18
TOTAL	...	...	...	...	73

COMMON LODGING HOUSES.

On Register	...	...	...	...	...	1
Number of persons for whom accommodation is provided :—Adults, 111 ; Children, 8.						
Inspections	...	...	...	...	...	24

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.
6,684	282	37	10

BAKEHOUSES.

Factory Bakehouses	...	...	...	...	16
Workshop Bakehouses	...	...	...	...	12
Domestic Bakehouses	...	...	...	...	1
TOTAL					29
Number of Inspections					150

NUISANCES FOUND—

Limewashing overdue	...	...	...	...	26
Dirty yards	...	...	...	...	1
Ceilings requiring re-painting	...	...	...	...	3
Choked drains	...	...	...	...	1
Dirty W.C. pans	...	...	...	...	5
No separate accommodation for sexes	...	...	...	...	1
Accumulations of manure	...	...	...	...	4
Defective yard paving	...	...	...	...	3
Defective vent shafts	...	...	...	...	—
Want of cleanliness	...	...	...	...	1
Other defects	...	...	...	...	15
TOTAL					60

FOOD SUPPLY.

There are on the registers of the Department—

Butchers Shops	...	...	...	...	90
Butchers Stalls (in covered market)	...	...	...	...	3
Wholesale Meat Store	...	...	...	...	1
Fried Fish Shops	...	...	...	...	38
Ice Cream Shops	...	...	...	...	161
Cooked Meat Shops	...	...	...	...	40

and these premises are regularly inspected by your officers.

MEAT AND FOOD DESTROYED.

		Tons	cwts.	qrs.	lbs.
Carcases of Beef and Offal	...	9	10	2	7
Portions of Beef and Offal	...	2	6	1	26
Carcases of Pig and Offal	...	...	13	2	10
Portions of Pig and Offal	...	...	8	1	27
Carcases of Mutton and Offal	...	...	2	1	10
Portions of Mutton and Offal	...	...	...	1	18
Carcases of Veal and Offal	...	...	1	0	0
Heads	...	1	9	3	27½
Lungs	...	...	5	3	2
Heart	...	...	...	...	2
Livers	...	...	12	3	11
Plucks	...	...	3	2	24½
Offal	...	1	9	3	14
Kidney	...	...	...	...	4
Chilled Beef	...	...	13	0	27
Plate Corned Beef	...	...	...	...	18
1 Deer	...	...	...	1	14
Herrings	...	...	8	2	0
Potatoes	...	1	8	0	0
Smoked Fillets	...	...	...	2	13
Sprats	...	...	1	1	0
21 Rabbits	...	...	...	...	—
3 Turkeys	...	...	...	...	—
TOTAL	...	19	17	1	3

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The following table shows the number of carcasses inspected during the year, together with the average per week:—

	Beasts.	Calves.	Pigs.	Sheep.	Total.
Total Inspected	1181	1380	5072	5856	13,489
Average per Week	22.71	26.54	97.54	112.61	259.40

CLASSIFICATION OF THE DISEASES FOUND
IN THE UNSOUND FOOD.

					Tons	cwts.	qrs.	lbs.
Abscesses	...	...	...	...		8	0	12
Absorption	...	...	...	...		16	3	14
Actinomycosis	...	...	...	...			1	23
Angioma	...	...	...	...			2	5
Bruising	...	...	...	...	1	12	3	10
Carcinoma	...	...	...	...				18
Cirrhosis	...	...	...	...		1	3	16
Coccidiosis (rabbits)	...	...	...	...				—
Coenurus Cerebralis	...	...	...	...				9
Contamination	...	...	...	...		2	2	4
Cystercercus Tenuicollis	...	...	...	...		1	0	22
Decomposition	...	...	...	...		15	0	3
Degeneration	...	...	...	...		1	0	23
Distomum Hepaticum	...	...	...	...		3	1	22½
Dropsy	...	...	...	...		1	1	14
Echinococcus Veterinorum	...	...	...	...				16½
Emaciation	...	...	...	...		5	1	20
Ill-bled	...	...	...	...		1	0	1
Inflammation	...	...	...	...		12	2	3
Johnes Disease	...	...	...	...		11	2	26
Mastitis	...	...	...	...				20
Moribund	...	...	...	...		3	1	27
Necrosis	...	...	...	...			1	18
Oestrus Ovis	...	...	...	...				15
Parturition	...	...	...	...	1	1	2	0
Pericarditis	...	...	...	...			2	10
Peritonitis	...	...	...	...		1	1	2
Pneumonia	...	...	...	...		3	1	4
Sarcoma	...	...	...	...			2	14
Septicaemia	...	...	...	...		11	3	0
Septic Metritis	...	...	...	...		7	3	0
Strongylus Filaria	...	...	...	...			1	6
Strongylus Paradoxus	...	...	...	...				3
Strongylus Rufescens	...	...	...	...				3
Swine Erysipelas	...	...	...	...		3	0	10
Toxaemia	...	...	...	...		4	1	10
Tuberculosis	...	...	...	...	9	4	1	13
Unsoundness	...	...	...	...	1	17	0	13
Uraemia	...	...	...	...			1	9
Urticaria	...	...	...	...				12
TOTAL					19	17	1	3

HOUSING.

Number of new houses erected during the year :—

(a) Total (including numbers given separately under (b))	225
(b) With State assistance under the Housing Acts :—	
(i) By the Local Authority	76
(ii) By other bodies or persons	—

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

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	903
(2) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	164
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	2
(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	707

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	670
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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	2
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(a) By Owners	2
(b) By Local Authority in default of owners	—
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	—

B. Proceedings under Public Health Acts:—

- | | |
|---|---|
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied | 8 |
| (2) Number of dwelling-houses in which defects were remedied after service of formal notices— | |
| (a) By Owners | 8 |
| (b) By Local Authority in default of owners ... | — |

C. Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925:—

- | | |
|---|---|
| (1) Number of representations made with a view to the making of Closing Orders | — |
| (2) Number of dwelling-houses in respect of which Closing Orders were made | — |
| (3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit | — |
| (4) Number of dwelling-houses in respect of which Demolition Orders were made | — |
| (5) Number of dwelling-houses demolished in pursuance of Demolition Orders | — |

DISINFECTION OF VEHICLES AT THE CATTLE MARKET.

Month.	No. of Vehicles Disinfected.	Fees Received.	Expenditure.
1931.		£ s. d.	£ s. d.
January	128	2 2 8	3 6 0
February*	140	3 10 0	3 6 0
March	142	3 11 0	4 0 0
April	125	3 2 6	2 12 0
May	118	2 19 0	3 6 0
June	103	2 11 6	2 16 0
July	132	3 6 0	1 16 0
August	137	3 8 6	2 6 0
September	133	3 6 6	2 6 0
October	137	3 8 6	2 11 0
November	173	4 6 6	3 0 0
December	120	3 0 0	2 6 0
Totals ...	1,588	£38 12 8	£33 11 0

* As from the 2nd February, 1931, inclusive, the charge per vehicle was increased from 4d. to 6d.